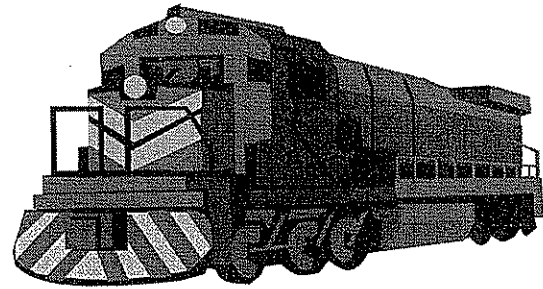


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09-8-5

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Recommendations on ARB Regulation of California Rail Yards and Locomotives



**Prepared by: Petitioner East Yard Communities
for Environmental Justice**

Presented to: California Air Resources Board

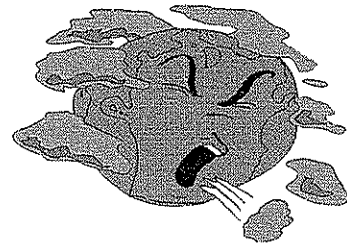
Date: September 25, 2009

Introduction

- California ARB has a duty to adopt additional enforceable locomotive and railyard pollution control measures to address significant health risks associated with diesel particulates (PM) at California's railyards and to meet the State Implementation Plan (SIP) federal criteria air quality standards for ozone and PM.
- This presentation will provide:
 - 1) Facts concerning California railyard activities;
 - 2) The regulatory record and framework for ARB duty to regulate railyard pollution sources; and
 - 3) A review of the Options Report and recommended comprehensive ARB regulatory approach for California railyard sources.

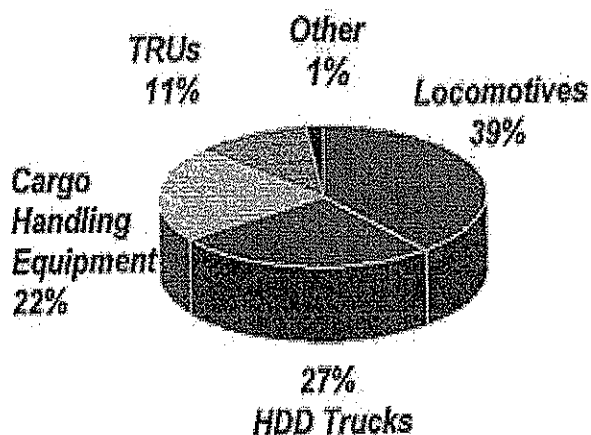
California Railyard Air Quality Impacts

- To begin, the facts show that the 18 intermodal and classification railyards in California cause significant emissions of criteria and toxic air contaminants including diesel PM.
- The railroads predict and are planning for growth (>4% per year and expansions at BNSF Southern California International Gateway and Union Pacific Intermodal Container Transfer Facility).
- Locomotives alone account for 4.8 tpd PM and 158 tpd NOx in the State.

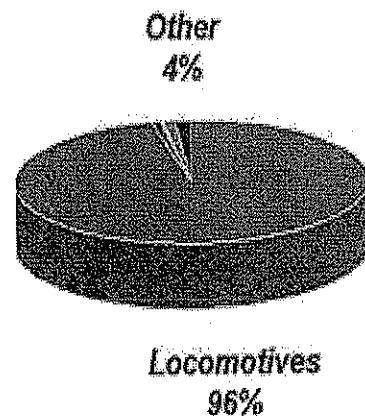


Distribution of Railyard Diesel PM Emission Sources
(2005)

8 Intermodal Railyards



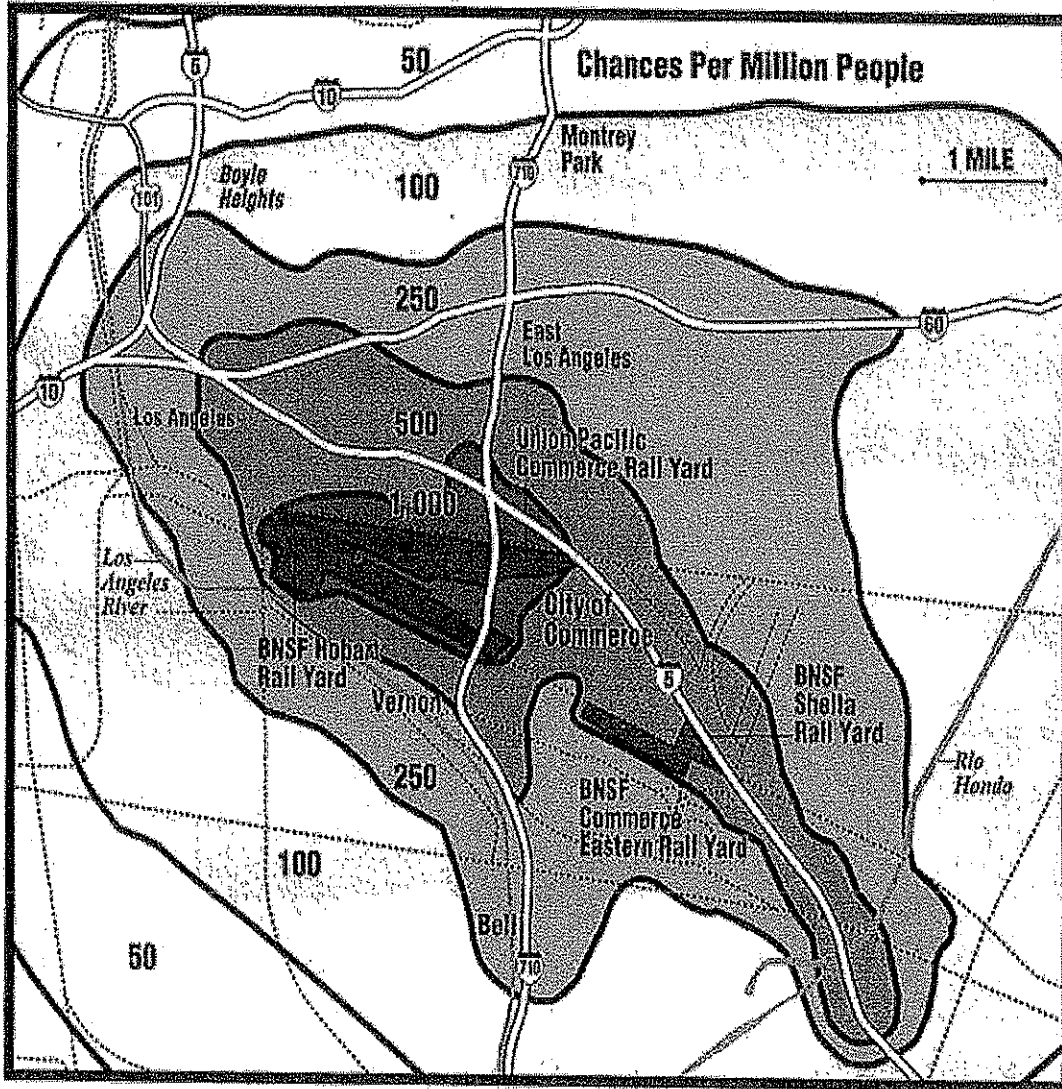
10 Classification Railyards



California Railyard Air Quality Impacts

- The evidence shows that California's railyards are among the largest single sources of airborne human health risk -- up to 3,300 per million cancer risk (at BNSF San Bernardino), compared to accepted threshold of 10 per million.
- Cancer risk isopleth for the four Commerce, California railyards:

The study presents the cancer risk as isopleths overlaid on a map, which shows risk levels of 10, 25, 50, 100, 250, and 500 Chances per million people.



California Railyard Air Quality Impacts

- Thus, the ARB's 2007 PM and 8-hour ozone SIPs include locomotive and goods movement reduction targets. The SIPs concede that "the severity of the region's PM-2.5 problem and the attainment deadline make it necessary to further mitigate locomotive emissions in 2014."
- Executive Officer Goldstene acknowledges that health risk is "unacceptably high" and that "every feasible effort" is needed to "reduce localized risk in communities adjacent" to rail yards.
- Yet, implementation of federal locomotive rules (stricter emissions standards and fleet turnover to "Tier 4" by 2045) and ARB's goods movement measures will take years. Significant and unacceptable health risks will remain.
- Federal, state and matching funds may be available (Diesel Emissions Reduction Act, American Recovery and Reinvestment Act, Proposition 1B, Carl Moyer).
- More needs to be done. There is no area where air pollution controls are more critical. Over 3 million Californians are exposed the railyard cancer risk in excess of 10 in one million.
- Petitioners have submitted a draft resolution, detailed comment letter and expert evaluation for the record.

California ARB Regulatory Framework for Railyard Pollution Sources

- Cal. H&S Code §§ 43013, 43018 give the ARB a duty that it “shall adopt and implement” control measures that are “necessary, cost, effective and technologically feasible” for good movements sources including “heavy-duty motor vehicles” “utility engines” and “locomotives” to comply with the NAAQS and state standards, unless preempted by federal law. This is the legal standard that governs your work.
- To meet this charge, ARB has adopted goods movement regulations for heavy duty drayage diesel trucks and cargo handling equipment. However, ARB has not directly regulated railyards or locomotives, instead favoring 1998 and 2005 Memorandum of Understandings (“MOUs”).
- In 2007, environmental and community groups sued and filed a Petition for Rulemaking with ARB, challenging the 2005 MOU and failure to adopt new regulations.
- In January 2009, ARB granted the Petition in part. Executive Officer Goldstene confirmed that “substantial additional emission reductions are necessary” and agreed to evaluate implementation options in the Options Report and present the Board with a plan to achieve such reductions.

Legal Developments Since 2005 MOU Regarding Control of Railyard Pollution Sources

- In 2007, the court in *Assoc. Amer. Railroads v. SCAQMD* clarified that state regulations that implement federal environmental laws are not preempted by ICCTA:

15 not preempted.⁵ The District is correct that the ICCTA does
16 not preempt the CAA, as the STB has repeatedly held that
17 "nothing in section 10501(b) is intended to interfere with
18 the role of state and local agencies in implementing Federal
19 environmental statutes, such as the Clean Air Act, the [Clean
20 Water Act], and the [Safe Water Drinking Act]." *Boston and
21 Maine Corp. and Town of Ayer, MA*, STB Fin. Docket No. 33971,
22 2001 WL 458685, at *5 (STB, Apr. 30, 2001); see also *Cities
23 of Auburn and Kent - Burlington Northern Railroad Co.*, STB
24 Fin. Docket No. 33200, 1997 WL 362017, at *4 (STB, July 1,
25 1997) ("Nothing in . . . this decision is intended to

26
27 ⁵ In further support of their position, Defendants
28 provided the Court with the recent Supreme Court decision in *Massachusetts v. EPA*, 127 S. Ct. 1438 (Apr. 2, 2007).

- In 2007, US EPA recognized in writing that older switchers are not CAA preempted and "are subject to regulation by California and the other states." 72 *Fed. Reg.* 15971. Certain state regulation of nonroad engines is carved-out under CAA section 209(d); *Engine Manufacturers Association*, 88 F.3d 1075 (D.C. Cir. 1996); 59 *Fed. Reg.* 18978 (4/16/98); Cal. H&S Code § 41701 (anti idling rules).
- In 2008, court rules that ICCTA does not override CEQA review of rail activities on municipal land. *EYCEJ v. City of Bell* (LASC No. BS11726) (court stops BNSF 24+acre intermodal lease along 710 freeway).

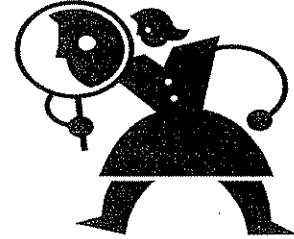
Staff Concludes That Many Measures Likely Are Not Preempted by Federal Law

- Thus, the staff's legal recommendations today at Appendix pp. 6-8 conclude that many potential measures to reduce criteria emissions and cancer risk at California rail yards likely are not preempted by federal law:
- "ARB staff believes that ARB likely possesses authority to establish emission standards for switcher and medium horsepower locomotives that principally operate in intrastate service . . ."
- "[w]e believe that a significant portion of the approximate 400 MHP freight and passenger locomotives were manufactured prior to 1973 or exceed 133 percent of their useful lives since manufacture or last manufacture and would fall outside of the CAA preemption . . ."
- "[t]he other 28 options considered by staff involve local railyard sources and intrastate activities. These options . . . are not preempted under CAA section 209(e)(1). ARB thus has authority under California law and CAA section 209(e)(2) to adopt emission standards for most, if not all, of the sources covered by the options."
- As a result, staff finds that up to 100 older switcher, 400 older medium horsepower ("**MHP**") locomotives and numerous site-specific railyard measures may be subject to ARB rulemaking.
- Consequently, the Board has a duty and sound legal basis to approach this issue from a position of strength.

CARB Should Implement Regulations and Final Site-specific Mitigation Plans

- Now, in the Options Report, staff has determined that numerous control measures are economically and technologically feasible to dramatically reduce criteria pollution and health risk.
- As a result, ARB has a duty to employ all available implementation mechanisms for these measures, including rulemaking.
- Petitioners agree that intrastate locomotives Option 1 (replacement of 152 older non-preempted switch locomotives), Option 2 (retrofit of 244 gen-set switch locomotives with NOx and PM emission controls), Option 5 (repower of 400 older non-preempted MHP locomotives with low-emitting engines) and Option 7 (retrofit of 400 older non-preempted MHP locomotives with NOx and PM emission controls) are feasible and cost effective.
- However, locomotive options are not the only non-preempted options that will have a significant impact on emissions. In addition, Options 11 (electric-powered yard trucks), 21 (Advanced Locomotive Emissions Control “hood” system), 35 (ambient particulate matter monitoring stations), 36 (enhanced truck and locomotive inspection program), and 37 (move rail yard emission sources away from nearby residents) are also feasible and cost effective.

CARB Should Implement Regulations and Final Site-specific Mitigation Plans



- These site-specific measures can be expeditiously implemented to reduce public exposure to emissions from the railyards that present the greatest health risk.
- In 2008, your staff was present at more than one dozen community meetings to discuss the railroads' Draft Mitigation Plans. Staff consistently heard testimony about the local impacts and pollution emissions from specific rail yard operations. Yet, the Plans are not finalized or enforceable. It is time to do so.
- A 90% reduction in cancer risk can occur if DPM sources are moved to distances over 1,500 feet from sensitive receptors. Significant reductions can be achieved through relocation of maintenance facilities, staging areas and yard entrances, or by requiring higher emission controls near high risk residential areas.
- Also, monitoring is needed to back up staff's models. Aethylometers and the MATES III Study (a South Coast regional monitoring and risk assessment program) show that we can achieve real-time monitoring for toxic contaminants and DPM. Our communities deserve this.

CARB Should Implement Regulations and Final Site-specific Mitigation Plans

- Therefore, ARB should initiate a rulemaking within 60 days for older non-preempted switchers and MHPs (Options 1, 2, 5, 7) to include all available federal and State incentive funding and matching programs.
- Direct staff to report to the Board within 120 days to finalize site-specific "Diesel Particulate Matter Mitigation Plans" for the 18 individual major California rail yards (starting with those with the highest cancer risk) with enforceable measures including Options 11, 21, 35-37.
- Direct staff to report to the Board within 120 days on the other recommended actions (i.e., seeking changes in federal law, supporting San Pedro Ports Clean Air Action Update, developing goods movement efficiency measure and improved emissions inventories, etc.)
- To sum up, Petitioners respectfully urge the Board to satisfy its mandatory duty to regulate through all available mechanisms including rulemaking for non-preempted California locomotive and rail yard sources.

