State of California
AIR RESOURCES BOARD

Resolution 03-37

February 26, 2004

Agenda Item No.: 03-10-2

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board ("ARB" or "Board") to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to, and imposed upon, the Board by law;

WHEREAS, section 39618 of the Health and Safety Code classifies refrigerated trailers as mobile sources to be regulated by the Air Resources Board on a statewide basis to prevent confusion concerning whether refrigerated trailers are stationary sources when not being driven and to prevent inconsistent regulation by air pollution control and air quality management districts when such vehicles are operated in more than one district;

WHEREAS, section 41511 provides that for the purpose of carrying out its duties, the Air Resources Board may adopt rules and regulations to require the owner or the operator of any pollution emission source to take such action as the Air Resources Board may determine to be reasonable for the determination of the amount of emissions from such source;

WHEREAS, under section 39650 of the Health and Safety Code, the Legislature finds and declares that it is the public policy of the State that emissions of toxic air contaminants should be controlled to levels which prevent harm to the public health;

WHEREAS, on August 27, 1998, the Board identified diesel exhaust particulate matter as a toxic air contaminant pursuant to article 3 (commencing with section 39650), chapter 3.5, part 2, division 26 of the Health and Safety Code;

WHEREAS, in identifying diesel exhaust particulate matter as a toxic air contaminant, the Board determined that there is not sufficient scientific evidence to support identification of a threshold level below which no significant adverse health effects are anticipated, as codified in title 17, California Code of Regulations, section 93000;

WHEREAS, pursuant to section 39665 of the Health and Safety Code, the Air Resources Board staff prepared, and on September 28, 2000, the Board approved, a comprehensive risk reduction plan to significantly reduce diesel exhaust particulate matter emissions from diesel-fueled engines and vehicles;

WHEREAS, the Office of Environmental Health Hazard Assessment listed under section 39669.5(a) of the Health and Safety Code diesel exhaust particulate matter and other compounds associated with diesel exhaust as possibly causing infants and children to be especially susceptible to illness;

WHEREAS, sections 39658, 39665, 39666, and 39667 of the Health and Safety Code authorize the Board to establish airborne toxic control measures for substances identified as toxic air contaminants in accordance with specified criteria;

WHEREAS, in fulfilling the requirements of the aforementioned sections, the Board is required to consider adoption of an airborne toxic control measure for sources, including mobile sources, to achieve the maximum possible reduction in public exposure based on its prior determination not to specify a threshold exposure level for diesel exhaust particulate matter under section 39662 of the Health and Safety Code;

WHEREAS, an airborne toxic control measure for an existing source, including a mobile source, developed pursuant to sections 39666 and 39667 of the Health and Safety Code is required to be based on application or utilization of the best available control technologies or more effective control methods, unless the Board determines, based on an assessment of risk, that an alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health;

WHEREAS, the diesel exhaust particulate matter risk reduction plan identified the temperature-control systems associated with refrigerated straight truck vans, trailer vans, railcars, and shipping containers, which are commonly known as transport refrigeration units and transport refrigeration unit generator sets (hereinafter designated as TRUs and TRU generator sets);

WHEREAS, sections 43013(b) and 43018 additionally provide the Air Resources Board with broad authority to adopt emission standards and regulations for vehicular and other mobile sources;

WHEREAS, diesel-fueled engines associated with TRUs and TRU generator sets are a source of diesel exhaust particulate matter;

WHEREAS, Air Resources Board staff has determined that neither the current emission standards for engines the State designates as "off-road" and the United States Environmental Protection Agency designates as "nonroad," nor the proposed United States Environmental Protection Agency Tier 4 emissions standards all of which apply only to new, but not in-use, "nonroad" engines, will sufficiently reduce diesel exhaust particulate matter emissions from the in-use TRUs and TRU generator sets, which comprise a significant portion of the California fleet;

WHEREAS, the Air Resources Board staff has determined that aligning the proposed in-use performance standards with the proposed federal Tier 4 emission standards for new engines is anticipated to achieve, in the most cost effective manner, the maximum feasible emission reductions of diesel PM generated from in-use TRU engines;

WHEREAS, the diesel exhaust particulate matter risk reduction plan included recommendations for reducing emissions, exposure, and associated potential cancer risk from TRU and TRU generator set engines, particularly near facilities where TRUs and TRU generator sets operate;

WHEREAS, to augment the general information and recommendations provided in the diesel exhaust particulate matter risk reduction plan, the Air Resources Board staff met and worked with affected private industry, federal, State, and local public agencies, and the public;

WHEREAS, with the information and comments received from such meetings, the ARB staff prepared a report, entitled the Initial Statement of Reasons for Proposed Rulemaking - Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate (hereinafter designated as the Initial Statement of Reasons);

WHEREAS, the Initial Statement of Reasons further identified and explained the need and appropriate degree of regulation for diesel exhaust particulate matter that was earlier addressed in the diesel exhaust particulate matter risk reduction plan required by Health and Safety Code section 39665(a);

WHEREAS, the Initial Statement of Reasons further discussed, to the extent data could reasonably be made available, the factors specified in Health and Safety Code section 39665(b) in adopting the diesel exhaust particulate matter risk reduction plan, including: estimates of emissions, exposure, and potential cancer risk due to the operation of diesel-fueled engines associated with TRUs and TRU generator sets, feasible control options, potential environmental impacts, cost of compliance for private and State and local public agency facilities frequented by TRUs and TRU generator sets and/or operators of TRUs and TRU generator sets, and cost impacts for Air Resources Board implementation of the proposed Airborne Toxic Control Measure;

WHEREAS, as part of the Initial Statement of Reasons, staff performed a risk assessment on a generic (i.e., example) facility, such as a refrigerated warehouse distribution center, assuming a total of 300 hours of TRU and TRU generator set operation per week and a diesel exhaust particulate matter emission rate of 0.7 grams per brake horsepower-hour and, as a result of modeling analyses, estimate the potential cancer risk would be in the 10 to 100 per million range between 250 and 1,000 meters (800 to 3,300 feet) from the

facility and would decrease to less than 10 per million at approximately 1,100 meters (3,600 feet) from the facility;

WHEREAS, concepts and draft proposals regarding the proposed Airborne Toxic Control Measure were discussed at two public consultation meetings, nine workgroup meetings, and five public workshops;

WHEREAS, in accordance with the authority set forth above, staff evaluated various control options, including:

> Reliance on existing State off-road engine and existing and proposed United States Environmental Protection Agency nonroad engine emission standards with no additional control of in-use TRU and TRU generator set engines; and
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> Requiring refrigerated transport units at facilities to operate on electric power rather than on diesel-fueled engines;

WHEREAS, in accordance with the above authority, the staff has now proposed adoption of title 13, California Code of Regulations (CCR), section 2022 and concluded that the proposed requirements set forth therein would reduce diesel exhaust particulate matter emissions and associated cancer and other adverse health effects statewide and significantly reduce such emissions and adverse health effects near California facilities where TRUs and TRU generator sets operate:

> In-use TRU and TRU generator set engine performance standards based on engine horsepower rating to be phased-in starting in 2008 and continuing through 2020 with an early compliance incentive provided for operators with 2002 and older TRU and TRU generator set engines;
> An initial operator report, to be updated as necessary, with information about the TRUs and TRU generator sets operated in California; and
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> A one-time report from facilities with 20 or more loading dock doors serving refrigerated storage areas to enable staff to evaluate the overall effectiveness of the regulation in reducing diesel exhaust particulate matter concentrations near facilities where numerous TRUs and TRU generator sets operate;

WHEREAS, staff estimated the overall cost effectiveness associated with compliance with the proposed Airborne Toxic Control Measure to range from $10 to $20 per pound of diesel exhaust particulate matter reduced;

WHEREAS, no significant compliance costs are expected for federal, State, or local public agencies because few of these agencies are subject to the proposed Airborne Toxic Control Measure and because those that are subject operate, or control the operation of, relatively few TRUs or TRU generator sets;

WHEREAS, the initial costs associated with implementation and enforcement of the proposed Airborne Toxic Control Measure are expected to be absorbed into existing Air Resources Board budgets and additional staffing is not expected to be required;

WHEREAS, compliance with the proposed Airborne Toxic Control Measure is expected to reduce exposure to, and associated additional cancer and other adverse health risk from, diesel exhaust particulate matter;

WHEREAS, the California Environmental Quality Act (CEQA), section 21080.5 of the Public Resources Code and Board regulations at title 17, CCR, section 60006 require that no project that may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, in consideration of the Initial Statement of Reasons, written comments, and public testimony it has received, the Board finds that:

Existing federal, State, and local regulations and proposed United States Environmental Protection Agency Tier 4 emission standards for new nonroad engines do not sufficiently protect the public health from diesel exhaust particulate matter associated with in-use TRU and TRU generator set engine operation;

The proposed Airborne Toxic Control Measure is expected to provide flexibility in choice of compliance options, control emissions, reduce exposure, and protect health more effectively than any other possible alternative evaluated in accordance with the authority vested under the Health and Safety Code by requiring the following:

In-use TRU and TRU generator set engine performance standards based on engine horsepower rating to be phased-in starting in 2008 and continuing through 2020 with incentive for early compliance,

An initial operator report, to be updated as necessary, with information about the TRUs and TRU generator sets operated in California; and

A one-time report from facilities with 20 or more loading dock doors serving refrigerated storage areas to enable staff to evaluate the overall effectiveness of the regulation in reducing diesel exhaust particulate matter concentrations near facilities where numerous TRUs and TRU generator sets operate;

The proposed Airborne Toxic Control Measure would reduce exposure to potential diesel exhaust particulate matter emissions and associated cancer and other adverse health effects in all communities in which TRU and TRU generator set engines operate;

The economic impacts of the proposed Airborne Toxic Control Measure have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the Initial Statement of Reasons;

The benefits of the proposed Airborne Toxic Control Measure to public health and the environment justify the costs of compliance, implementation, and enforcement; and

No alternatives considered or that have otherwise been identified and brought to the attention of the Air Resources Board would be more effective at carrying out the purpose for which the Airborne Toxic Control Measure is proposed, or would be as effective and less burdensome to the affected private businesses and public agencies than the proposed Airborne Toxic Control Measure;

WHEREAS, the Board further finds, in accordance with Health and Safety Code section 39650(e), that while absolute and undisputed scientific evidence may not be available to determine the exact risk from diesel exhaust particulate matter from diesel-fueled engines associated with TRUs and TRU generator sets, it is necessary to take action to protect public health and that the maximum feasible emission reductions permitted by law should be obtained;

WHEREAS, pursuant to Health and Safety Code sections 39666 and 39667, the Board further finds that the proposed in-use emission standards adopted herein are based on utilization of the best available control technologies identified within the time scheduled for compliance;

WHEREAS, pursuant to Health and Safety Code section 43013(b), the Board further finds that the in-use emission standards adopted herein are found to be necessary, cost-effective, and technologically feasible within the time provided for compliance;

WHEREAS, the Board further finds based on its independent judgment and analysis of the entire record before it that:

With respect to the requirements of CEQA, the proposed Airborne Toxic Control Measure set forth at section 2022, title 13, CCR, will not have a significant effect on the environment, but will result in the reduction of diesel exhaust particulate matter;

Having identified that the proposed Airborne Toxic Control Measure will not adversely affect the environment, but rather provide environmental benefits that are achieved both statewide and locally, the proposed regulation should not adversely impact any community in the State, especially low-income or minority communities;

The reporting requirements applicable to businesses under section 2022, title 13, CCR, are necessary for the health, safety, and welfare of the people of the State.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves for adoption new division 3, chapter 3, article 4, section 2022, title 13, California Code of Regulations, as set forth in Attachment A and modified by Attachment B hereto;

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to incorporate into the approved regulations the modifications set forth in Attachment B, with such other conforming modifications as may be appropriate, and then to adopt the amendments and new regulation, after making the modified regulatory language available for public comment for a period of 15 days, provided that the Executive Officer shall consider such written comments regarding the modifications as may be submitted during this period, shall make modification as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if the Executive Officer determines that this is warranted;

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to explore the possibility of entering into pilot-demonstration projects on an ad hoc basis with interested stakeholders on application of advanced technologies; such projects shall be for the purpose of determining whether such technologies will provide equal or greater health and welfare benefits in a cost-effective and technologically feasible manner. Such programs should be of limited duration and scope as determined by the Executive Officer. If determined that pilot-demonstration projects are appropriate, the Executive shall also consider whether 15-day changes to the regulation are necessary for their implementation.

BE IT FURTHER RESOLVED that the Board hereby determines that pursuant to Title II, section 209(e)(2) of the federal Clean Air Act, as amended in 1990, that the emission standards and other requirements related to the control of emissions adopted as part of this Airborne Toxic Control Measure are, in the aggregate, at least as protective of public health and welfare as applicable federal standards, that California needs the adopted standards to meet compelling and extraordinary conditions, and that the adopted standards and accompanying enforcement procedures are consistent with the provisions of section 209;

BE IT FURTHER RESOLVED that the Board directs the Air Resources Board staff to:

Pursuant to the determination set forth above, to file a request for authorization from the United States Environmental Protection Agency pursuant to section 209(e)(2) of Title II of the federal Clean Air Act as amended in 1990;

Consider, if necessary, amending the proposed in-use performance standards for TRUs to align with the final U.S. EPA "Tier 4" emission standards for new, compression ignited TRU engines; in considering whether alignment is appropriate, staff shall be cognizant of the continuing risks associated with diesel PM emissions and make every effort to ensure that the emission reductions forecasted for this rulemaking be achieved in the time frame provided;

Educate affected TRU and TRU generator set operators and facilities where TRUs and TRU generator sets operate about the requirements of the regulation;

Develop an identification (I.D.) numbering system and database to track compliance of TRUs and TRU generator sets that operate in California;

Review large facility reports (submission required in 2005) to determine if the regulation sufficiently reduces diesel exhaust particulate matter concentrations near facilities where numerous TRUs and TRU generator sets operate;

Closely monitor progress and development of emission control technology as it applies to TRUs and TRU generator set emission standards set forth in this Airborne Toxic Control Measure and report back to the Board in 2007 and 2009 on staff's conclusions regarding the feasibility of the standards in the time provided in the regulation for compliance;

Work with the United States Environmental Protection Agency to identify a diesel exhaust particulate matter emission standard for new nonroad engines that are less than 25 horsepower;

Work with TRU, TRU generator set, and engine manufacturers to develop a list to cross reference TRU and TRU generator set makes, models, and model years with Executive Order numbers that set forth engine exhaust emission certification levels and deterioration rates for specific TRU and TRU generator set engine makes, models, and model years; and

Ensure compliance with the regulation through roadside TRU and TRU generator set inspections in conjunction with the Heavy-Duty Vehicle Inspection Program, facility audits, and other enforcement actions as necessary.

I hereby certify that the above is a true and correct copy of Resolution 03-37, as adopted by the Air Resources Board.

Lori Andreoni

Lori Andreoni, Clerk of the Board

Resources Agency of California
SEP 2 9 2004
Office of the Secretary

Resolution 03-37

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Identification of Attachments to the Board Resolution

Attachment A: Proposed Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate (division 3, chapter 3, article 4, section 2022, title 13, California Code of Regulations) as set forth in Appendix A to the Initial Statement of Reasons, released October 24, 2003.

Attachment B: Staff's Suggested Modifications to the Original Proposal