

State of California
AIR RESOURCES BOARD

Resolution 00-31

September 28, 2000

Agenda Item No: 00-9-2

WHEREAS, sections 39600, 39605, and 39620 of the Health and Safety Code (H&SC) authorize the Air Resources Board (the Board or ARB) to do such acts as necessary to properly execute the powers and duties granted to, and imposed upon, the Board by law; and to provide assistance to local air pollution control and air quality management districts (air districts) to improve the efficiencies in the issuance of permits;

WHEREAS, section 39002 empowers local and regional authorities with the primary responsibility for control of air pollution from all sources other than vehicular sources; local and regional authorities may establish stricter standards than those set by law or by the Board, for nonvehicular sources;

WHEREAS, H&SC sections 39003, 39500, 39602, and 41500 authorize the Board to coordinate, encourage, and review efforts to achieve and maintain the State and national ambient air quality standards;

WHEREAS, H&SC section 40926 stipulates that nothing in Chapter 10, District Plans to Attain State Ambient Air Quality Standards, restricts the authority of the Board or a district to adopt regulations to control suspended particulate matter (PM);

WHEREAS, Chapter 3.5 (commencing with section 39650) of Part 2 of Division 26 of the H&SC establishes procedures for the identification of toxic air contaminants (TACs) by the Board;

WHEREAS, AB 1807 enacted by the State of California in 1983 (AB 1807, Tanner, Chapter 1047, Statutes of 1983, H&SC sections 39650 et seq.) requires the ARB to identify, control, and reduce ambient levels of TACs;

WHEREAS, section 39650 finds and declares that public health, safety, and welfare may be endangered by the emissions into the ambient air of substances which are determined to be carcinogenic, teratogenic, mutagenic, or otherwise toxic or injurious to humans; and it is public policy of the State that emissions of TACs should be controlled to levels which prevent harm to the public health;

WHEREAS, the Office of Environmental Health Hazard Assessment (OEHHA) concluded that diesel exhaust is an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health because it is a potential human carcinogen;

WHEREAS, diesel exhaust is a complex mixture of gases and fine particles emitted by a diesel-fueled engine;

WHEREAS, the gaseous fraction of diesel exhaust contains volatile organic compound components, but is primarily composed of typical combustion gases such as nitrogen, oxygen, carbon dioxide, and water vapor. However, as a result of incomplete combustion, the gaseous fraction also contains air pollutants such as carbon monoxide, sulfur oxides, nitrogen oxides, and volatile organic compounds such as alkenes, aromatic hydrocarbons, aldehydes such as formaldehyde and 1,3-butadiene, and low-molecular weight polycyclic aromatic hydrocarbons (PAH) and PAH-derivatives;

WHEREAS, particulate and volatile organic compound emissions in diesel exhaust include over 40 substances that are listed by the U.S. Environmental Protection Agency (U.S. EPA) as hazardous air pollutants and by the ARB as toxic air contaminants, and 15 of these substances are listed by the International Agency for Research on Cancer (IARC) as carcinogenic to humans, or as probable or possible human carcinogens;

WHEREAS, organic vapor phase substances emitted by diesel-fueled engines have been listed as TACs or have and can be controlled as VOC emissions;

WHEREAS, the scientific evidence indicates particulate matter and organic vapor phase emissions are the most likely contributors to adverse health effects from exposure to diesel exhaust;

WHEREAS, the Scientific Review Panel (SRP) and OEHHA concluded that based on human epidemiological data, and based on the 95 percent upper confidence limit, the estimated range of lifetime (70 year) excess lung cancer risk is 1.3×10^{-4} to 2.4×10^{-3} per microgram of particulate emissions in a cubic meter of air exposure; and after considering the results of meta-analyses of human studies, as well as the detailed analysis of railroad workers, the SRP concluded that $3 \times 10^{-4} (\mu\text{g}/\text{m}^3)^{-1}$ is a reasonable estimate of the unit risk expressed in terms of diesel particulate;

WHEREAS, the Board recognizes that the major sources of diesel PM emissions are diesel-fueled mobile sources (i.e., on-road vehicles and off-road engines (equipment) and vehicles, which includes certain equipment considered portable);

WHEREAS, on August 28, 1998, Board Resolution 98-35, the Board determined that it was appropriate to list particulate emissions from diesel-fueled engines (diesel PM) as a TAC, and the Board directed staff to develop risk management guidelines for use by California air districts in the permitting and/or regulating emissions from certain diesel-fueled engines, e.g., stationary sources;

WHEREAS, at the direction of the Board, ARB staff established an Advisory Committee, with four working group subcommittees to ensure public consultation and participation in its risk management efforts;

WHEREAS, the ARB staff has worked closely with California air districts, affected industries, environmental groups, and other interested parties in the development of risk management guidelines for the permitting of new stationary diesel-fueled engines;

WHEREAS, in response to comments made by industry and the districts, the ARB staff has made several revisions to the draft proposed Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines that was first made available to the public February 3, 1999;

WHEREAS, the proposed Risk Management Guidance document includes recommendations that California air districts implement programs that would require owner/operators of stationary diesel-fueled engines to either: 1) comply with minimum technology requirements; or 2) comply with performance requirements. Additional requirements, such as a health risk assessment (HRA) are recommended for engines that are larger than 50 hp and operate more than 400 hours per year; a Specific Findings Report is recommended if the HRA shows a potential excess cancer risk of more than 10 in one million;

WHEREAS, the Board has held a duly-noticed public meeting, in accordance with all applicable provisions of law, to consider approval of the proposed Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines, and has heard and considered the comments presented by representatives of the Board, air districts, affected industries, and other interested persons and agencies; and

WHEREAS, the Board finds that:

The proposed guidance document will promote a technology-based approach in the permitting of new stationary diesel-fueled engines while retaining a risk-based approach where circumstances warrant; and

The proposed guidance document will provide California air districts, businesses, and industries with a consistent permitting approach to risk management decisions statewide.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the Proposed Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines as set forth in Attachment A.

BE IT FURTHER RESOLVED that the Executive Officer is directed to forward the proposed Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines document to all California air districts for their consideration in the permitting of new stationary diesel-fueled engines.

BE IT FURTHER RESOLVED that the Board encourages each district to implement the proposed guidance document as approved by the Board, without modification, so that statewide uniformity in the permitting of new stationary diesel-fueled engines can be achieved.

BE IT FURTHER RESOLVED that the Executive Officer is directed to provide technical assistance to any district requesting assistance in interpreting or implementing the methodologies described in the proposed guidance document.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer, in cooperation with industry and the districts, to begin evaluating the feasibility of achieving additional emission reductions from existing stationary diesel-fueled engines.

I hereby certify that the above is a true and correct copy of Resolution 00-31, as adopted by the Air Resources Board.



Marie Kavan, Clerk of the Board