

SUMMARY OF BOARD ITEM**ITEM # 02-2-5: PUBLIC HEARING TO CONSIDER APPROVAL OF THE CARL MOYER MEMORIAL AIR QUALITY STANDARDS ATTAINMENT PROGRAM STATUS REPORT**

STAFF RECOMMENDATION: Staff recommends the Board approve the Carl Moyer Air Quality Standards Attainment Program (The Carl Moyer Program) Status Report for submittal to the Legislature as required by section 44245(a) of the Health and Safety Code.

DISCUSSION: The Carl Moyer Program provides grants for the incremental cost of cleaner on-road heavy-duty vehicles, off-road equipment, marine vessels, locomotives, agricultural pumps, auxiliary power units and other equipment to reduce emissions of oxides of nitrogen (NOx), a smog-forming pollutant, from mobile source diesel engines. The Carl Moyer Program also aims to reduce the fine particulate component of diesel exhaust, which contributes to particulate matter (PM) air pollution and is a toxic air contaminant. The program is in its fourth year of implementation. Initial program guidelines were approved in February 1999 and revised guidelines were approved in November 2000. The Carl Moyer Program has provided \$114 million in grants over the last four years, including \$16 million in this fiscal year. A portion of the program provides grants to support refueling infrastructure and engine technology development. The Infrastructure Demonstration and Advanced Technology sections are administered by the California Energy Commission (CEC). The NOx emission reductions achieved through this program are necessary to meet California's clean air commitments in the federally-required State Implementation Plan.

Section 44286 of the Health and Safety Code, establishes the ARB, the air pollution control districts, and the CEC as the administrators of

the Carl Moyer Program. Section 44245 (a) mandates that the Board submit an annual report on the status of the Carl Moyer Program to the Legislature.

Estimated emission reductions from the first three years are about 14 tons per day of NO_x and 800 pounds per day of PM. The majority of the emission benefits occur in the first five years (the minimum project life), although some lower-emission engines may be in service 20 years or more. Overall, the program is extremely cost-effective – averaging approximately \$5,000 per ton of NO_x. Reductions produced by the program will continue to benefit California for up to 20 years, depending on expected life of the engine.

Most of the engines funded include refuse haulers, urban transit buses, agricultural irrigation pumps and other farm equipment. These vehicles and equipment operate daily in residential neighborhoods and agricultural communities. These impacted areas will receive the benefits of the majority of the program's emission reductions.

This report is an update on the status of the statewide program for the first three years as required by the Health and Safety Code, including status of expenditures, types of projects, number of engines, and emission benefits. The report also addresses the role of the Carl Moyer Program in reducing public exposure to toxic diesel exhaust and the program's role in alleviating California's energy crisis. The significant emission benefits achieved the reduction in public health exposure to toxic PM emissions, and the overwhelming response to the program support the need for continued funding.

CALIFORNIA AIR RESOURCES BOARD**NOTICE OF PUBLIC MEETING TO CONSIDER A STATUS REPORT ON THE CARL MOYER MEMORIAL AIR QUALITY STANDARDS ATTAINMENT PROGRAM: INCENTIVES FOR LOWER EMISSION HEAVY-DUTY ENGINES (THE CARL MOYER PROGRAM)**

The Air Resources Board (ARB or Board) will meet publicly at the time and place noted below to consider a status report on the Carl Moyer Program, as required by section 44295 of the Health & Safety Code. The Carl Moyer Program is currently operating in its fourth year. The Board approved the original program guidelines in February 1999 and revised the guidelines on November 16, 2000. Over the course of four fiscal years (1998/1999-2001/2002), the Carl Moyer Program has helped replace over 3,000 heavy-duty diesel engines with either cleaner burning diesel engines or alternative fueled engines. ARB estimates that emission reductions from the first four years are about 16 tons per day of oxides of nitrogen (NOx) and 1,000 pounds per day of particulate matter (PM).

The status report includes background on the Carl Moyer Program and the participating air pollution control and management districts' progress toward implementing this important program. The report also includes a discussion of the California Energy Commission's (CEC) activities in implementing the infrastructure demonstration and advanced technology portions of the Carl Moyer Program. A summary of the report will be presented to the Board at the meeting.

DATE: March 21, 2002
TIME: 9:00 a.m.
PLACE: San Diego County Administration Center
Supervisor's Chambers, Room 310
1600 Pacific Highway
San Diego, California 92101

The item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., March 21, 2002, and will continue at 8:30 a.m., March 22, 2002. Please note that this item may not be considered until March 22, 2002. Please consult the agenda for the meeting, which will be available at least ten days before March 21, 2002, to determine the day on which this item will be considered.

This facility is accessible to persons with disabilities. If accommodation is needed, please contact Ms. Erin Dooley at (916) 323-8975, or for the Telecommunications for the Deaf (TDD), call (916) 324-9531 or (800) 700-8326 for TDD calls from outside the Sacramento area 14 days before March 21, 2002.

BACKGROUND

Over 1.2 million diesel engines operate in California today. Diesel engines emit significant quantities of pollutants such as NO_x that form smog and ambient PM, as well as carcinogenic compounds. Diesel engines account for less than five percent of California's total engine population, yet produce more than 40 percent of California's NO_x emissions. Furthermore, many diesel engines tend to operate for 20 years or more. The long life of diesel engines makes fleet turnover alone an insufficient emission control strategy.

In 1998 the ARB identified PM exhaust from diesel-fueled engines as a toxic air contaminant. A prominent study cited over 70 percent of the cancer risk from identified toxic air contaminants in the South Coast Air Basin was due to diesel PM. In September of 2000, ARB approved the Diesel Risk Reduction Plan, which focuses on PM emission reductions for new and existing diesel-fueled engines and vehicles. In March 2000 the Carl Moyer Program Advisory Board, in a report to the Governor and the Legislature, recommended the Carl Moyer Program Guidelines include a provision to reduce PM emissions. In November 16, 2000, the Board revised the guidelines to introduce PM emission reductions targets.

The ARB's mission is to promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state. The State Implementation Plan (SIP), a federally-required clean air plan, lays out California's control strategies to achieve clean air. Near-term emission reductions from heavy-duty diesel engines are critical to achieving air quality goals.

The Carl Moyer Program provides critical funding to achieve near-term emission reductions from heavy-duty diesel engines and help California meet its air quality commitments under the SIP. The Carl Moyer Program is a grant program that funds the extra capital cost of cleaner-than-required vehicles and equipment to produce NO_x and PM emission benefits. The program has received a total of \$114 million in one-time appropriation allotments over the last four fiscal years (FY 1998/1999 – FY 2001/2002). The program also provides grants for alternative fuel infrastructure and grants for development of technology to reduce emissions beyond what is required by any state, federal, or local regulations. Hence, the program buys critical near-term emission benefits that California needs to meet impending federal air quality deadlines.

DISTRICT PROGRESS

During the first three years, 23 air districts successfully implemented the Carl Moyer Program. In general, districts have seen a large demand for project funds. The types of funded projects include: purchase of new natural gas trucks, transit buses, and school buses; purchase of electric forklifts instead of internal combustion forklifts; and replacement of old diesel engines with newer diesel engines in marine vessels, agricultural pumps, and other off-road equipment. All the major air districts in the state are well into the process of awarding fourth year grants, which total \$16 million.

Emission benefits will be realized into the next decade because many lower-emission engines will remain in service for ten years or more. Overall, the program is extremely cost-effective – averaging below \$5,000 per ton of NOx.

STATUS OF CEC INFRASTRUCTURE DEMONSTRATION AND TECHNOLOGY DEVELOPMENT PROJECTS

The CEC program criteria and guidelines for implementing the Carl Moyer Fueling Infrastructure Program were approved at a CEC Business Meeting in November 1999. Under the CEC program, funds are subvented to air districts which solicit applications and expend funds in accordance with the criteria. The CEC has awarded a total of \$4.5 million for infrastructure projects in local air districts.

The CEC allocated \$2 million from the 1999/2000 fiscal year budget and \$2.2 million from the 2000/2001 fiscal year budget for the Advanced Technology Development Section for the Carl Moyer Program. CEC allocated the majority of the 1999/2000 fiscal year funds to aftertreatment and advanced natural gas engine development. Fiscal year 2000/2001 funds were awarded to four projects: a turbine hybrid demonstration bus, a low NOx heavy-duty natural gas reliability augmentation project, a retrofit NOx filter demonstration, and a retrofit control technology demonstration project.

Like the ARB's portion of the Carl Moyer Program, the CEC's infrastructure demonstration and advanced technology development programs have been oversubscribed in both funding years. A full discussion of CEC's Carl Moyer programs is included in the report.

AVAILABILITY OF DOCUMENTS AND CONTACT PERSON

The written report updating the Board on the progress of the Carl Moyer Program will be presented by ARB staff at the meeting. Copies of the written report prepared by staff may be obtained from the Board's Public Information Office, 1001 "I" Street, 1st Floor, Environmental Services Center, Sacramento, California 95814, (916) 322-2990, prior to the scheduled meeting. This report will also be available electronically on ARB's website at www.arb.ca.gov/msprog/moyer/moyer.htm prior to the scheduled meeting. Further inquiries regarding this matter should be directed to Ms. Cindy Sullivan, Manager, Alternative Strategies Section, at (916) 445-6015. If you are a person with a disability and desire to obtain this document in an alternative format, please contact the Americans with Disabilities Act (ADA) Coordinator at (916) 323-4916, or TDD (916) 324-9531, or (800) 700-8326 for TDD calls from outside the Sacramento area.

SUBMITTAL OF COMMENTS

The public may present comments relating to this matter orally or in writing at the meeting, and in writing or by e-mail before the meeting. To be considered by the Board, written comments and submissions not physically submitted at the meeting must be received **no later than 12:00 noon, March 20, 2002**, and addressed to the following:

Clerk of the Board
Air Resources Board
1001 "I" Street, 23rd Floor
Sacramento, CA 95814

To be considered by the ARB, e-mail submissions must be addressed to moyer02@listserv.arb.ca.gov and received at the ARB **no later than 12:00 noon, March 20, 2002**.

To be considered by the ARB, facsimile submissions must be sent to (916) 322-3928 and received at the ARB **no later than 12:00 noon, March 20, 2002**.

The Board requests but does not require 30 copies of any written submission. Also, the ARB requests that written and e-mail statements be filed at least ten days prior to the meeting so that ARB staff and Board Members have time to fully consider each comment. The ARB encourages members of the public to bring any suggestions or comments to the attention of staff in advance of the meeting.

CALIFORNIA AIR RESOURCES BOARD



Michael P. Kenny
Executive Officer

Date: March 4, 2002