State of California

Air Resources Board

SUMMARY OF BOARD ITEM

ITEM # 07-11-1: Health Update: Environmental Justice, Air Pollution, and Health

STAFF RECOMMENDATION:
Informational Item.

DISCUSSION:
ARB staff provides the Board with regular updates on current research findings on the health effects of air pollution. This month, staff will present the findings of recent studies on the air pollution effects in environmental justice communities.

SUMMARY OF AGENDA ITEM:
Staff will present results from recent studies that describe how poor and minority communities encounter disparities in exposure to air pollution. These studies examine the effects of particulate matter and other pollutants from point and mobile sources among environmental justice communities. The findings from one study suggest an association between air pollution and birth outcomes in Los Angeles County. The greatest effect was seen in low socioeconomic status neighborhoods with a 30% increase likelihood of preterm births for all women, and 120% increase likelihood of preterm births for African American women. In another study, lower academic performance in Los Angeles schools could be associated with air pollution exposure. The results of these studies suggest that disparities in environmental exposures remain and that these disproportionate exposures may lead to adverse health outcomes. Staff will briefly highlight recently completed and current research efforts funded by ARB which investigate how air pollution affects residents of low-income and minority neighborhoods.

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BOARD ITEM SUMMARY

ITEM # 07-10-6: PUBLIC MEETING TO CONSIDER ADOPTING THE PROPOSED REGULATION FOR COMMERCIAL HARBOR CRAFT

STAFF RECOMMENDATION:
Approve the proposed regulation for commercial harbor craft with staff's originally proposed modifications and any other modifications requested by the Board at the hearing.

DISCUSSION:
In September 2000, the California Air Resources Board (ARB or Board) adopted a comprehensive Diesel Risk Reduction Plan (Plan), establishing a goal of reducing diesel PM emissions and the associated health risk by 85 percent in 2020. This proposed regulation for commercial harbor craft engines is a step toward achieving the goals of the Plan. In addition to the diesel PM reductions, the proposed regulation would reduce ozone precursor emissions and would improve the air quality in neighborhoods near California ports and waterways.

In April 2006, the ARB adopted the Goods Movement Emission Reduction Plan (GMERP). The GMERP established goals for controlling emissions from commercial harbor craft of 30% by 2015 and 40% by 2020. This proposed regulation for commercial harbor craft engines achieves these goals through the accelerated replacement of unregulated and Tier 1 engines (i.e. engines subject to U.S. EPA Tier 1 Standards for marine engines.)

Diesel PM and oxides of nitrogen (NOx) emissions from the operation of diesel engines on commercial harbor craft are approximately 3 tons per day (tpd) and 73 tpd, respectively. The recent ARB exposure study for the ports of Los Angeles and Long Beach showed commercial harbor craft to be the third largest source of diesel PM emission contributing to the cancer risk at the ports.

The proposal was developed through workshops and focus meetings involving owners and operators of commercial harbor craft, industry associations, environmental organizations, and other parties interested in commercial harbor craft.

The proposed regulation requires in-use (existing) unregulated (Tier 0) and Tier 1 auxiliary and propulsion engines, on ferries, excursion vessels, tugboats, and towboats, to be replaced with engines meeting U.S. EPA Tier 2 or Tier 3 marine engine standards. The in-use engine compliance schedule is based on replacing

Based on an analysis of the population impacted by a risk of 10 in a million, the risk would be reduced from 1.7 million persons, in 2004, down to 0.6 million persons by 2020 due to reductions from the proposed regulation as well as other factors.

Further, the proposed regulation will result in significant reductions in exposure and potential non-cancer health effects. ARB staff estimates that approximately 310 premature deaths statewide will be avoided by the year 2025 due to the implementation of the regulation, which will also yield numerous other non-cancer health benefits. These benefits are estimated to represent a savings of from $1.3 billion to $2.0 billion, using standard U.S. EPA methodology.

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SUMMARY OF BOARD ITEM

ITEM 07-11-3: Report to the Board on the 2007 Legislative Update

STAFF RECOMMENDATION:
This item is for information only.

DISCUSSION:
Legislative Office staff will present a review of air quality legislation for the first year of the 2007-2008 Legislative Session. Of more than 2,800 bills introduced during this legislative year, about 240 were tracked by ARB's legislative staff. They addressed a wide array of air quality issues including the growth of the San Joaquin Valley Unified Air Pollution Control District's governing board from 11 members to 15 members, greenhouse gases, energy, goods movement, green building construction standards, smog check, and more.

SUMMARY AND IMPACTS:
ARB's legislative staff followed about 240 bills relating to air quality in the Legislature. Of these, only 68 bills were sent to the Governor. The legislative report highlights major legislation relating to air quality from the 2007 Legislative Session.

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BOARD ITEM SUMMARY

ITEM # 07-11-4: Public Meeting to Hear a Report on Staff's Review of Additional Local Emission Controls in the San Joaquin Valley

STAFF RECOMMENDATION:
No Recommendation.

DISCUSSION:
At the June 14, 2007 Air Resources Board (ARB or Board) meeting, the Board approved the San Joaquin Valley Air Pollution Control District's (District) 2007 Ozone Plan, including the District's request for reclassification to extreme nonattainment. Reclassification to extreme nonattainment would extend the attainment deadline from 2013 to 2024. At that meeting, the Board heard several hours of public testimony, much of it from community members who felt that more work should be done to clean the air sooner. The public comments also indicated that significant work must be done to reach out to the public and build public trust.

In response to the public call for expedited clean air progress, the Board directed ARB staff to evaluate opportunities to further reduce emissions. The Board directed staff to report back within six months on any additional emission control opportunities identified during this effort. The Board also directed staff to convene a task force and hold a series of town hall meetings in Valley communities to get input from the public on the staff's review.

Following the Board's direction, ARB staff held three town hall meetings, one each in the Valley's three regions – north, central, and south. Through these listening sessions, ARB staff had the opportunity to respond to the concerns and questions of Valley residents. ARB staff also convened a task force of business and industry advocates, air quality and public health advocates, and governmental leaders. The task force met five times to discuss additional opportunities for mobile and stationary source emission reductions in the Valley.

The 2007 State Strategy for California's State Implementation Plan (SIP) adopted by the Board in September 2007 included strengthened commitments for additional emission reduction in the San Joaquin Valley from mobile sources beyond those identified in June 2007.

Therefore, this report focuses on the ARB staff's review of stationary source emissions and opportunities to reduce those emissions in the effort to expedite ozone air quality progress in the San Joaquin Valley.

ARB staff's evaluation focused primarily on the current and proposed rules and policies of the District's oxides of nitrogen (NOx) control strategies. The purpose of the evaluation was to identify whether there might be additional strategies that the District could evaluate for potential to provide additional NOx emissions reductions from stationary sources. To do this, staff looked at the District's stationary source inventory, its current and proposed rules for several stationary source categories, measures in the District's 2007 Ozone Plan, and the District's Best Available Control Technology program. Staff's review also considered the August 2007 draft document entitled Clearing the Air: A Path to Clean Air by 2017, prepared by the International Sustainable System Resource Center.

SUMMARY AND IMPACTS:

The measures identified to date, including the strengthened ARB State Strategy, will result in approximately ninety percent improvement in air quality over the next ten years, relative to compliance with the federal air quality standard.

A snapshot of rule stringency taken ten years ago would have shown the South Coast District with the State's most stringent rules, setting the benchmark for stationary source control. The picture today looks very different. Since early this decade, the San Joaquin Valley District has set aggressive rulemaking targets in its SIPs for ozone and particulate matter. As a result, its existing rules together with those under development now are on par with the South Coast's.

Nonetheless, the San Joaquin Valley District and the Valley cities, counties, and transportation agencies have important roles to play in reducing air pollution as the region continues to grow. ARB staff has identified recommendations for the Air District, regional land use and transportation agencies, and the State which would progressively improve air quality in the region.

Staff recommends that the Board continue to work with the District to identify the next generation of technologies needed to bring the San Joaquin Valley into attainment of the federal ozone standard. Staff also recommends that the District continue to take the leadership role in the Valley to increase the focus on the ozone air quality impacts of local land use and transportation decisions, as well as continue its work to identify and secure funding streams to expedite turnover to the cleanest vehicles and equipment. Local land use and transportation planners would also play an increased role, using tools such as federal Congestion Mitigation and Air Quality (CMAQ) funding, to achieve cost-effect emission reductions from their projects.

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BOARD ITEM SUMMARY

ITEM # 07-11-5: Public Hearing to Consider Approval of Modified Transportation Conformity Budgets Contained in the 2007 Air Quality Management Plan for Attaining the Federal 8-Hour Ozone and PM2.5 Standards in the South Coast Air Basin and the 8-hour Federal Ozone Standard in the Coachella Valley

STAFF RECOMMENDATION:

Staff recommends that the Board approve the modified transportation conformity budgets for the South Coast Air Basin and Coachella Valley, and direct the Executive Officer to transmit the modified budgets to the U.S. EPA as revisions to the California State Implementation Plan.

DISCUSSION:

At a public meeting held September 27, 2007, the Air Resources Board approved the 2007 Air Quality Management Plan (AQMP) for Attaining the Federal 8-hour Ozone and PM2.5 Standards in the South Coast Air Basin and the Coachella Valley, adopted by the South Coast Air Quality Management District, for submittal as a revision to the State Implementation Plan. The AQMP includes transportation conformity budgets. At the same meeting, the Board approved a State Strategy for California's 2007 State Implementation Plan. Differences between the approved State Strategy and the state measures assumed in the 2007 AQMP require minor changes to the transportation conformity budgets.

SUMMARY AND IMPACTS:

Approval of the modified transportation conformity budgets will allow the Southern California Association of Governments to make transportation conformity findings as required by the federal Clean Air Act on transportation plans, funding programs and projects.

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BOARD ITEM SUMMARY

ITEM # 07-11-6: Public Meeting to Consider Approval of the AB 1007 Alternative Fuels Plan

STAFF RECOMMENDATION:
The Air Resources Board (ARB or Board) staff recommends the Board approve the State Alternative Fuels Plan (Plan).

DISCUSSION:
Assembly Bill (AB) 1007 requires the California Energy Commission (Energy Commission), in partnership with ARB, and in consultation with the State Water Resources Control Board, the Department of Food and Agriculture, and other relevant State agencies, to develop and adopt a plan to increase the use of alternative transportation fuels without adverse environmental impacts. The Energy Commission approved the Plan on October 31, 2007.

AB 1007 requires the Plan to include, among other things, the following:

- An evaluation of alternative fuels using a full fuel cycle analysis;
- Goals to increase alternative fuels in 2012, 2017, and 2022; and
- Recommendations of policies, such as standards, financial incentives, and research and development programs, to ensure the Plan's goals are met.

In developing the Plan, the Energy Commission and ARB staff considered other policies and goals related to transportation fuels. These include the petroleum reduction goals established under AB 2076 (Shelly, Chapter 936, Statutes of 2000), the Bioenergy Action Plan (Executive Order S-06-06), the greenhouse gas (GHG) emission reduction goals of Executive Order S-03-05, the Global Warming Solutions Act of 2006 (AB 32), and the Low Carbon Fuel Standard (Executive Order S-01-07).

The Energy Commission and ARB staff conducted a full fuel cycle analysis of more than 50 alternative fuel/vehicle technologies. The Energy Commission approved the full fuel cycle analysis on June 27, 2007.

Although AB 1007 identified 2012, 2017, and 2022 as milestone years, the Energy Commission and ARB staff extended the analysis to include 2030 and 2050. The extended analysis allowed for an assessment of alternative fuel/vehicle technologies with longer development time frames. Fuel and vehicle technology combinations were evaluated for potential petroleum displacement, environmental impacts, cost, and contributions to the alternative fuel use goals of the Plan. These evaluations formed the basis of the Plan's findings and recommendations.

SUMMARY AND IMPACTS:
The Plan recommends alternative transportation fuel use goals of 9 percent by 2012, 11 percent by 2017, and 26 percent by 2022. The Plan also recommends a combination of policies, regulations, and incentives to achieve the fuel use goals. Additionally, the Plan presents a "2050 Vision" that extends the Plan's outcomes beyond the milestone years to 2030 and 2050, and lays a plausible foundation for building a potential multi-fuel transportation energy future scenario for California by 2050.

The combination of policies, regulations, and incentives recommended in the Plan will promote investments in fueling infrastructure, in-state production facilities, commercial development of "second generation" alternative fuels, and advanced technology vehicles. The Plan finds that the passage of AB 118 provides a source of State incentive funding to stimulate production and use of alternative fuels in California.

The Plan concludes that the State needs a portfolio of alternative, low-carbon, fuels to meet the State's multiple goals of reduced petroleum consumption, reduced GHG emissions, and increased in-state biofuels production. The Plan also concludes that the Low Carbon Fuel Standard will provide a durable framework for the production and use of alternative fuels, and stimulate technology innovation. The Plan finds that a multi-faceted approach, including increased use of alternative fuels, significant improvements in the energy efficiency of vehicles, and reduced vehicle miles traveled through changes in travel habits and land management policies, will be required to meet the State's long term goal of reducing GHG emissions to 80 percent below the 1990 level by 2050.

If implemented, the Plan increases the use of alternative transportation fuels; creates opportunities for in-state production of biofuels; strengthens California's economy; and conserves the State's limited petroleum supply without adverse environmental impacts. In addition, the Plan encourages the use of alternative fuels that reduce greenhouse gases, criteria air pollutants, and toxic air pollutants and supports the State's commitments, under the State Implementation Plan, to improve air quality and achieve ambient air quality standards.