

Bay Area Air Quality Management District

939 Ellis Street - San Francisco, California 94109

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December 17, 2001

To: Jane Kelly, Chairperson, and Members of the Advisory Council
From: Brian Zamora, Chairperson, and Members of the Public Health Committee
Subject: Airport and Aircraft Air Quality

Topic:

The District's role in continued reduction of air pollution from aircraft and other airport sources.

Importance/Implications:

Airports are among the top ten industrial sources of air pollution nationally. While automobile emissions have declined from 1975 to 2000, aircraft emissions have increased. These emissions contain known cancer-causing compounds, harmful particulates, and criteria pollutants. Air traffic in the Bay Area, already considerable, is expected to double by 2020.

Recommendations:

- (1) The District is urged to devote resources to the airport and aircraft emissions.
- (2) The District is urged to participate in the multi-agency task forces working on Regional Airport Expansion(s) and other advisory committees and mitigation working groups.
- (3) The District is urged to obtain emissions data at and around airports and other flight paths to better assess air quality impacts.
- (4) The District is urged to obtain a seat on the Regional Airport Planning Committee to advocate for emission controls of aircraft engines.
- (5) The District is urged to advocate to the Federal Environmental Protection Agency (EPA) to reduce the emissions from aircraft engines.
- (6) The District is urged to advocate to EPA for the regulation of aircraft emissions.
- (7) The District is urged to make information about the issue available through the District's web site and at District information tables.
- (8) The District is urged to solicit technical assistance from the California Department of Health Services and the Office of Environmental Health Hazard Assessment in project design and analyzing the results.
- (9) Certain of our recommendations are more resource intensive than others: some could be expensive but we believe that there are approaches for outside funding, and not all costs need to be borne by the District itself.

Key Issues:

- (1) The District does offer comment letters on EIRs associated with airport expansion, occasionally participates in regional task force meetings on airport issues, and works with the airports to reduce ground support equipment emissions.
- (2) Airports rank among the top ten sources of industrial emissions.
- (3) A single Boeing 747 emits an amount of NO_x equal to a car driven 26,500 miles.
- (4) Chemicals associated with airport operations include methyl bromide, benzene, trichloroethylene, toluene, nitrogen monoxide, nitric and sulfuric acid, carbon monoxide. Many are cancer-causing compounds.
- (5) 70% of emissions are from aircraft while 30% are from ground service and traffic in and out of the airport facility, including ground support equipment and airplane tow vehicles.
- (6) The District regulates emissions from ground service equipment only.
- (6) Aircraft emissions are not regulated by any governmental agency.
- (7) No agency is monitoring aircraft emissions or studying their health effects.

Information Considered:

The Committee received reports from the following professionals: Dr. Shankar Prasad, MMBS, Community Health Advisor to the Chairman, CARB; Donna Reid, Ph.D., Conference & Communications Manager, Technology Transfer Program, Institute of Transportation Studies, University of California at Berkeley; Ms. Gail Staba, Environmental Planner, Port of Oakland; Mr. Henry Hilken, Senior Planner, BAAQMD (report on the "Current and Future District Programs Related to Regional Airports") The Committee considered numerous written reports on aircraft emissions and health effects, such as: J. Phyllis Fox and Robert Sears, Health Risk Assessment for the Metropolitan Oakland Airport Proposed Development Program; City of Park Ridge, Illinois, Preliminary Study and Analysis of Toxic Air Pollutant Emissions from O'Hare International Airport and the Resulting Health Risks Created by these Toxic Emissions in Surrounding Residential Communities, August 2000; Health data from a residential US-EPA grant study prepared by Seattle-King County Department of Public Health for communities surrounding Boeing Field (King County International Airport).

Deliberative Process:

The Public Health Committee reviewed staff's report, heard presentations from experts in the field and considered many pages of written material on the subject. The Committee met on July 16, September 12, October 22 and December 17 to receive and discuss presentations on the issues. The Committee unanimously arrived at a recommendation for forwarding to and consideration by the full Advisory Council.

RESOLVED, That CMA encourage the state of California to explore strategies including, but not limited to, a petroleum mitigation fee, levied at the refinery gate, to fund petroleum demand reduction strategies, to clean-up and mitigate transportation and petroleum related air and water pollution, and to support new, clean transportation technologies and infrastructure planning.

References:

1. Dockery DW and Pope CA. *Acute Respiratory Effects of Particulate Air Pollution*. Annual Review Public Health, 1994: Vol. 15,107-32. (mostly Diesel)
2. Wilson R and Spengler J, Eds. *Particles in Our Air: Concentrations and Health Effects*. 1999, p. 212; US Environmental Protection Agency, Office of Air Quality Planning and Standards. *Staff Papers on Smog and Soot Pollution; Review of the National Ambient Air Quality Standards for Ozone and Particulate Matter*. 1996
3. California Air Resources Board. *The 2001 California Almanac of Emissions and Air Quality*. April 2001; California Air Resources Board. *Emissions by Category: 2000 Estimated Annual Average Emissions Statewide*. October 2000.
4. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. 1996 Staff Papers on Smog and Soot Pollution: "Review of the National Ambient Air Quality Standards for Ozone and Particulate Matter." (1996).
5. Multiple Air Toxics Exposure Study in the South Coast Air Basin. South Coast Air Quality Management District (SCAQMS), 1998.