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Agency

Air and Radiation

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Office of Mobile Sources

Environmental Fact Sheet

Reducing Aircraft and Airport Emissions in the South Coast

In 1990, the South Coast air basin contained approximately 16 tons per day of oxides of nitrogen (NOx) and 13 tons per day of volatile organic compounds (VOC) from airport activities. These activities included emissions from ground service equipment (GSE), auxiliary power units (APU) and aircraft engines. Because attainment in the South Coast will require reductions from every source of emissions, it has always been important to evaluate the feasibility of reductions from all sources including aircraft and airports.

Previous Regulatory Activities

Federal Implementation Plan Proposal

In order to reduce emissions from these activities, the U.S. Environmental Protection Agency (EPA) proposed a Federal Implementation Plan (FIP) in 1994 which included an airport cap/bubble with a 25-45 percent reduction range for VOC and a 35-45 percent reduction range for NOx. The proposal also presented a list of possible mitigation options to achieve these reductions. These included operational controls for commercial aircraft such as single/reduced engine taxiing, reduced use of reverse thrust and towing of aircraft to the runway. The mitigation options also included controls for APUs and GSE such as using alternative fuels and electrification.

Interim Final Federal Implementation Plan

In 1995, EPA issued an interim final FIP which dropped the airport bubble/cap requirements and proposed regulations for achieving reductions from only APUs and GSE. The APU and GSE regulations would require minimizing APU operations and electrifying GSE to the maximum extent feasible. Instead of the 25-45 percent reduction range for VOC and NOx proposed in 1994, the interim final proposal would achieve approximately a 16-25 percent reduction for VOC and NOx. Shortly after it was approved, the interim final FIP was rescinded by the United States Congress.

California Ozone State Implementation Plan

As EPA was working on the FIP, the State of California was developing its clean air plan and, in November 1994, adopted the 1994 California Ozone State Implementation Plan (SIP). This Plan included a commitment for EPA to adopt emission standards that would achieve a 30 percent reduction in VOCs and NOx from new commercial aircraft engines.

International Standards

EPA has participated in the international process for evaluating new aircraft emission standards. The International Civil Aviation Organization (ICAO) is responsible for evaluation and recommendation of worldwide commercial aircraft engine standards and the United States is represented by the Federal Aviation Administration (FAA). EPA has been working with the FAA.

Currently, ICAO is considering a 16 percent NOx stringency increase to be phased in from 2000 to 2008. If adopted, the full emissions reduction potential of this new standard would occur well after 2010, the attainment date for the South Coast. More specifically, emission benefits at that time could be minimal, clearly not delivering the reductions identified in the SIP for aircraft engine emission standards. However, there remain other emission control strategies (such as those identified in the FIP), that may have the potential to provide most or all of the reductions desired from the aviation sector.

The Public Consultative Process

One of the purposes of the public consultative process is to have all stakeholders work together to identify the best options for achieving further emissions reductions from mobile source controls at airports to the extent they are needed for attainment of the ozone health

standard in the South Coast. The process will also identify the appropriate parties responsible for adopting and implementing the controls expeditiously.

Public Meetings

A series of public meetings have been scheduled to complement ongoing processes as well as initiate new discussions on how to reduce emissions from various categories of mobile sources. In October 1996, EPA will hold a second public meeting which will focus on pending national and international ship and aircraft controls, and possible reductions from port and airport measures. More details on this meeting will be sent out in the next two months.

Input Requested

EPA wants your involvement in this process and would like to hear about any ideas you may have to help make this process a success. We also want to hear about ongoing efforts to look at reducing emissions from airports and aircraft. Please call Julia Barrow at (415) 744-1230 with any comments or questions about the process.