



South Coast Air Quality Management District

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Airports Study Working Group

Ken Edwards Center

March 17, 2005 Meeting Minutes

Members Present

Gretchen Hardison
Sean Petersen
Dennis Quilliam
Martin Rubin
Robert Trimborn

Affiliation

City of Los Angeles – EAD
Assembly Member Fran Pavley
Los Angeles World Airport
Concerned Residents Against Airport Pollution
Santa Monica Airport

Others Present

Rich Berman
Braudon Eaton
Nancy Hernandez
David Kaplan
Rod Merl
Nancy Pfeifer
Paul Roberts
Edgar Saenz
Martin Tachiki

City of Santa Monica
LAWA-VNY Operations
Councilman Tony Cardenas
Santa Monica Airport Commission
Santa Monica Airport
Assemblyman Mike Gordon
Sonoma Technology, Inc.
Rep. Maxine Waters
Santa Monica City Attorney's Office

AQMD Staff

Rudy Eden
Lourdes Cordova-Martinez
Jean Ospital
Tom Parsons
Mark Von Der Au
Sumner Wilson

Welcome

Tom Parsons welcomed the members of the Airports Study Working Group. Following a round of introductions of those present, Dr. Jean Ospital, AQMD Health Effects Officer, was introduced to provide information on ultrafine particles.

Ultrafine Particle Presentation

Dr. Ospital gave a detailed presentation of ultrafine particles that included current particulate matter (PM) regulation, basin-wide attainment status for PM, definitions of ultrafine particles, health effects of ultrafine particle exposure and control strategies for particulate emissions. See the attached presentation slides for more information.

Several of the meeting's attendees had questions or comments in response to Dr. Ospital's presentation. Mr. Bob Trimborn asked why ultrafine particulate matter was a part of this study. Dr. Ospital responded that community concerns regarding the potential negative health effects from ultrafine PM expressed at previous committee meetings resulted in AQMD staff adding particle count instruments to this study. Mr. Dennis Quilliam asked if there is a unique emission signature for aircraft to which Dr. Ospital replied that there is no known signature for aircraft and that the emissions are likely to be very similar to mobile source emissions. Mr. Martin Rubin asked why ultrafine particle counts are highest in December. Dr. Ospital responded that ambient temperature has an impact on ultrafine particle formation and reaction, lower ambient temperatures result in greater nucleation and condensation of volatile particle precursors. Mr. Trimborn added that increased use of space heating in winter could also lead to higher particle counts and Dr. Ospital agreed that could also impact measurable particle counts. Mr. Trimborn asked if the CPC particle counters count all particles. Mr. Parsons replied that a PM_{2.5} inlet is used to screen out particles greater than 2.5 microns in diameter and Dr. Ospital added that almost all the particles are very fine, less than .1 micron in diameter. Mr. Martin Tachiki asked if any other ultrafine particle counts will be taken at the same time as the Airports Study monitoring is conducted. Dr. Ospital replied that no particle counts are planned by AQMD during the time of the study but that UCLA has received a grant to conduct ultrafine particle counts along with other PM measurements around LAX in summer 2005. Mr. Parsons added that AQMD does have historical averages of particle counts for the past three years as a result of the Children's Health Study. Mr. Tachiki also asked if impacts from other sources in the area would be considered, to which Dr. Ospital responded that source apportionment would not be possible for ultrafine particles. Mr. Parsons asked Dr. Ospital what were the implications of this ultrafine particle discussion for the Airport Monitoring Study. Dr. Ospital replied that we will be collecting data near airports that hasn't been collected before. He went on to say that while the science of ultrafine particles is just developing, the potential negative health impacts of ultrafine particle pollution warrant additional research. Mr. Parsons then expanded on Dr. Ospital's comments to say that the ultrafine particle measurements that will be part of this program are a value-added activity and that all findings related to ultrafine particle counts will be presented in an addendum to the Airport Study report.

Proposed Measurement Locations

Mr. Rudy Eden, Senior Manager, next gave a presentation on the proposed sampling design and sampling sites. The sampling design calls for up to four intensive sampling arrays. One array will be placed upwind of the airports, up to three arrays of instruments will be placed immediately downwind and in the downwind communities to characterize

any gradient in emission exposures in the adjacent communities. These intensive arrays will include samplers for lead, VOCs, carbonyls, speciated PM_{2.5} as well as continuous carbon monoxide analyzers and ultrafine particle counters. In one area to each side of the runways, community sites will be chosen for placement of lead samplers and carbon monoxide sensors. Maps of each airport were displayed that indicated the probable locations for each of the sampling arrays. Mr. Sumner Wilson, Special Monitoring Supervisor, said that the one day in three sampling schedule would require AQMD staff to service the sites as often as three times per week including weekend service days.

Next Steps

Mr. Parsons told the committee that the next step will be to finalize the selection of sampling sites. He added that the process of establishing monitoring sites is a time consuming activity. Once the sampling sites are finalized, the draft work plan can be completed and delivered to U.S. EPA for approval. In the meantime, AQMD staff is preparing all the instrumentation to be used in the study.

Next Meeting Date

The next meeting of the Airports Study Advisory Committee will be May 4, 2005 at 10:00 a.m. at the Van Nuys Airport Sound Proofing Office.