

**STATE OF CALIFORNIA  
AIR RESOURCES BOARD**

**MEETING OF THE  
RESEARCH SCREENING  
COMMITTEE**

**July 11, 2012  
9:00 a.m.**

**Air Resources Board  
Research Division  
Cal/EPA Building  
1001 I Street  
Sacramento, CA 95814  
(916) 445-0753**

**State of California  
AIR RESOURCES BOARD**

**Research Screening Committee Meeting  
Cal/EPA Headquarters Building  
1001 I Street  
Conference Room 510, 5<sup>th</sup> Floor  
Sacramento, California 95814  
(916) 445-0753**

**July 11, 2012  
9:00 a.m.**

**AGENDA**

- I. Minutes of the May 11, 2012 RSC meeting ii-vii
  
- II. Discussion of a Request for Proposals:
  - 1) “Measuring Real-World Emissions from the On-Road Passenger Car Fleet,” \$75,000, RFP 12-303
  
- III. Other Business:
  - 1) Research Plan Fiscal Year 2012-2013

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**Research Screening Committee Meeting  
Cal/EPA Headquarters Building  
1001 I Street  
Conference Room 510  
Sacramento, California 95814  
(916) 445-0753**

**&**

**University of California, Los Angeles  
Terasaki Life Sciences Building  
Room Number: 1100  
610 Charles E. Young Drive East  
Los Angeles, California 90095**

**May 11, 2012  
10:00 a.m.**

**MINUTES**

**RSC Members in Attendance**

Harold Cota  
Forman Williams  
Suzanne Paulson  
Daniel Costa - via teleconference  
Tracy Thatcher – via teleconference  
Rachel Morello-Frosch – via teleconference

The Research Screening Committee (RSC or Committee) convened the meeting at 10:16 a.m. The minutes of the March 9, 2012 meeting were approved.

**I. New Research Projects**

- 1) “New Car Buyers’ Intentions Toward Zero-Emission Vehicles,” University of California, Davis, \$250,000, Proposal No. 2744-274

The Committee expressed concerns about this proposal.

A Committee member felt it was unclear if project is for 15, 18 or 21 months. Staff clarified it is for 21 months.

A Committee member commented that overall, this proposal could be significantly strengthened if it more clearly specified what aspects of this survey are connected to ARB regulatory objectives regarding zero-emission vehicles (ZEV) adoption. The member felt that the way the proposal is written in terms of the issues the surveys will cover is very vague. The member felt it was not very clear how the questions asked will connect with these broader regulatory questions that ARB is interested in.

A Committee member would like to know how pilot testing of survey instruments will occur (for both the online survey and semi-structured interviews). The member also thinks ARB staff should have an opportunity to review the instrument through the piloting phase to ensure that the questions asked are relevant to regulatory needs, as well as reviewing the data coding scheme for the semi-structured interviews.

A Committee member felt the regional oversampling piece is probably a good idea; however, had some questions. Where would they oversample and what would be their method be for doing it? Which regions would be oversampled and how would they choose those? Right now it appears that South Coast Air Quality Management District might fund oversampling in its area. Are there plans to oversample elsewhere?

A Committee member had questions regarding the household ZEV semi-structured interviews table (p. 16). Not clear why smaller vehicle households are not considered. The number of interviews in each category should be increased to 10, if feasible to ensure more robust results.

A Committee member felt that overall, the analytical plan in the proposal could use more detailed information, both in terms of the statistical work as well as in the analysis of the qualitative data that emerges from the semi-structured interviews. In addition, it's problematic that this proposal lacks a separate section that more clearly describes its analytical approach to the qualitative and quantitative survey data.

The Committee felt interview transcripts should be made available to ARB at the end of the project for future work and to inform future survey efforts of this type.

Motion: Tabled

The Committee tabled the proposal.

## **II. Draft Final Reports**

- 1) "Toxicity of Source-Oriented Ambient Aerosol," University of California, Davis, \$838,934, Contract No. 06-331

Staff informed the Committee that staff from both the Office of Environmental Health Hazard Assessment and the contract co-funders, the Electric Power Research Institute, had reviewed the report and found it satisfactory. The Committee commended the researchers on the technical aspects of the project. The Committee determined that the draft final report needed more details and findings in the abstract, executive summary, and conclusions sections. The Committee suggested that these sections be amended to include a summary of the results, and to discuss the significance of these results for regulations and future investigations.

The Committee also requested editorial changes including the inclusion of subheadings and page numbers in the table contents, a table of contents for figures and tables, and changing “aerosol” in the title to more closely reflect samples collected for the study.

Motion: Move to accept subject to the inclusion of comments from staff and Committee

The Committee approved the report.

- 2) “Effect of GSTM1 Genotype on Ozone-Induced Allergic Airway Inflammation,” University of California, San Francisco, \$747,990, Contract No. 03-315

A Committee member remarked that the project was a high-risk difficult one, and that while it is unfortunate that the investigator was unable to meet the target subject number, the draft final report is as good as it can likely be. The member also raised the question as to whether ARB should fund similar projects in the future. A Committee member asked that the investigator clarify the significance of the results of the study, and more fully discuss them in light of existing knowledge on ozone health effects.

Motion: Move to accept subject to the inclusion of comments from staff and Committee.

The Committee approved the report.

- 3) “Environmental Exposures in Early Childhood Education Environments,” University of California, Berkeley, \$417,496, Contract No. 08-305

The comments on the draft final report were very positive.

The Committee felt that the report was well written and provided useful information that could be leveraged to more systematically examine early childhood education environments in other locations.

The Committee was impressed with the organization and scope of the report. They felt that it was easy to read and locate the information, despite the substantial quantity of data presented.

The Committee also commented that the authors struck the proper tone by not overpromising or understating when they interpreted the results.

Two Committee members forwarded minor editorial comments to staff, which were subsequently passed on to the investigator.

Motion: Move to accept subject to the inclusion of comments from staff and Committee. Rachel Morello-Frosch abstained from voting.

The Committee approved the report.

- 4) "Assessment of Baseline Nitrous Oxide Emissions in California Cropping Systems," University of California, Davis, \$300,000, Contract No. 08-324

One comment was received from California Climate and Agricultural Network, suggesting expanding the scope of work for future research to include multiple greenhouse gases at whole farm levels.

A Committee member requested clarification on some of the experimental methods, tables, and graphs; and recommended including in the report, photos of experimental set-up and apparatus.

Motion: Move to accept subject to the inclusion of comments from staff and the Committee.

The Committee approved the report.

- 5) "SOA Formation: Chamber Study and Model Development," University of California, Riverside, \$474,229, Contract No. 08-326

The Committee suggested that a future follow-up study should:

- 1) Use the results of this study to develop a chemical mechanism for use in a regional aerosol simulation model.
- 2) Conduct a sensitivity study to determine the validity of this aerosol model's prediction.

Motion: Move to accept subject to the inclusion of comments from staff and Committee.

The Committee approved the report.

- 6) "Nocturnal Chemistry in the Urban Boundary Layer of Los Angeles," University of California, Los Angeles, \$409,090, Contract No. 08-318

The Committee was very impressed with the scientific depth and clarity of writing in the Final Report.

Motion: Move to accept subject to the inclusion of comments from staff and Committee. Suzanne Paulson abstained from voting.

The Committee approved the report.

- 7) "Source Apportionment of Carbonaceous Aerosols Using Integrated Multi-Variant and Source Tracer Techniques and a Unique Molecular Marker Data Set," University of Wisconsin-Madison, \$409,963, Contract No. 07-333

The Committee thought the report was very thorough. A Committee member asked that SOC1 and SOC2 be defined in the report.

Motion: Move to accept subject to the inclusion of comments from staff and the Committee.

The Committee approved the report.

## II. Other Business

- 1) ARB Staff Update on Annual Research Plan

Staff provided an overview of the projects that are proposed in the annual research plan and the process for choosing this list of projects.

- A Committee member asked about how many of the projects would require additional request for proposals (RFP). Staff replied that some would require an RFP to the UCs and then a general RFP would be released if nothing came from the RFP solicitations.
- A Committee member asked how many of the projects originated from the initial solicitation and how many were generated in-house. The answer was not known but staff will look into this after the meeting.
- A Committee member commented that she struggled to understand what low emission rail would do for the ARB. Would it allow ARB to regulate it or regulate the market place? Staff replied that the work was helpful from a policy standpoint to achieve zero emissions by 2050 and that ARB does not have direct regulatory authority over rail. However, this research will provide more understanding of the benefits and co-benefits of renewable power and solar panels. A Committee member questioned who the PI would be. Staff

responded that ARB talked to UC regarding this research but University of Illinois would bring lots of expertise. A Committee member suggested having UC Davis collaborate with University of Illinois.

- A Committee member asked why the budget for the advanced vehicles project was so large. Staff responded that the instrumentation and field work for monitoring the charging of different vehicles would be costly.
- A Committee member asked why there were no health exposure projects. Staff responded that the Environmental Protection Agency and others are funding projects like this. ARB is also currently working on big health projects.
- The Plan is going to the June 28<sup>th</sup> Board meeting.

The meeting adjourned at 11:25 a.m.