August 15, 2016

Jo Kay Chan Ghosh, Ph.D. Health Effects Officer South Coast Air Quality Management District jghosh@aqmd.gov

Dear Dr. Ghosh,

I am writing to express serious concern that my July 26, 2016 public comments below regarding the health effects/impacts of particulate matter in the South Coast Air Basin (SCAB) are not being addressed. In particular, the August 16, 2016 PPT by Dr. Elaine Shen <u>Update on the Preliminary Draft Socioeconomic Report</u> claims that there will be 2,111 premature deaths due to PM2.5 in 2023. This is the same number of deaths shown in the attached July 28, 2016 PPT slide by Dr. Anthony Oliver <u>Preliminary Public Health Benefits of the Draft 2016 AQMP</u>. This scientifically invalid claim does not provide valid public health justification for a 2016 AQMP that will impose an estimated \$38.2 billion in compliance costs on the SCAB economy.

Since 2006 I have repeatedly presented to CARB and SCAQMD strong epidemiologic evidence that there is no relationship between PM2.5 and total mortality in California. The latest version of this evidence is the attached table with 16 null results and 1 essentially null result from six different California cohorts (http://scientificintegrityinstitute.org/NoPMDeaths081516.pdf). Seven of the null results come from studies that were partially funded by SCAQMD. In addition, a very strong case has recently been made by nine accomplished experts, including myself, that "Particulate Matter Does Not *Cause* Premature Deaths" (https://www.nas.org/articles/nas_letter). Furthermore, I have now submitted for publication a manuscript with null findings that invalidate the positive nationwide relationship between PM2.5 and total mortality published in the seminal Pope 1995 paper, which is based on the American Cancer Society Cancer Prevention Study II (CPS II) cohort. My null CPS II cohort findings raise serious doubts about validity of the positive CPS II cohort findings in Jerrett 2005, Jerrett 2009, and Jerrett 2013, which have been used as the basis for the PM2.5 premature death claims in the PPTs of Drs. Oliver and Shen.

All epidemiologic evidence relevant to the SCAB must be properly presented and summarized in the revised Draft 2016 AQMP Appendix I Health Effects (http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plans/2016-air-quality-management-plan/DRAFT2016AQMP/appi.pdf?sfvrsn=2). Indeed, Appendix I must be finalized in strict compliance with all provisions of California Health and Safety Code (CHSC) Section 40471 (b): "On or before December 31, 2001, and every three years thereafter, as part of the preparation of the air quality management plan revisions, the south coast district board, in conjunction with a public health organization or agency, shall prepare a report on the health impacts of particulate matter air pollution in the South Coast Air Basin. The south coast district board shall submit its report to the advisory council appointed pursuant to Section 40428 for review and comment. The advisory council shall undertake peer review concerning the report prior to its finalization and public release. The south coast district board shall hold public hearings concerning the report and the peer review, and shall append to the report any additional material or information that results from the peer review and public hearings." (http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=40001-41000&file=40460-40471).

As I have previously requested, the 2016 AQMP must present current data on the average human exposure levels for PM2.5, ozone, and NOx in the SCAB. My evidence dating back decades indicates that the actual human exposure levels are far below the EPA National Ambient Air Quality Standards (NAAQS) and well below the levels for which there are proven adverse health effects. Furthermore, the tiny health effects of air pollution must be put into perspective with all the factors that influence human health, such as, employment, and with the fact that the SCAB has 2014 age-adjusted death rates for all causes, all cancer, and all respiratory diseases that are among the lowest in the entire US. These low death rates are summarized the attached table.

The ultimate scientific and regulatory fate of the 2016 depends upon the scientists who have conducted air pollution epidemiology research and upon the SCAQMD scientists who summarize these research findings in Appendix I Health Effects. We will soon find out if the SCAQMD scientists have the honesty and integrity to state that air pollution *does not cause* premature deaths in the SCAB, that the average daily human exposures to PM2.5, ozone, and NOx in the SCAB are well below the levels that *cause* adverse health effects, and that tougher air pollution regulations in the already healthy SCAB are not justified on a public health or socioeconomic basis.

In closing, please read my attached July 19, 2016 statement to the BizFed Southern California Business Coalition "AQMD Must Reassess Its Air Quality Regulations" and the attached page summarizing my scientific credentials and academic career.

Thank you very much for your consideration.

Sincerely yours,

James E. Enstrom, Ph.D., M.P.H. UCLA and Scientific Integrity Institute jenstrom@ucla.edu (310) 472-4274

cc: Elaine Shen < eshen@aqmd.gov>
Shah Dabirian < sdabirian@aqmd.gov>
Anthony Oliver < aoliver@aqmd.gov>
Philip M. Fine < pfine@aqmd.gov>
Wayne Nastri < wnastri@aqmd.gov>
Henry A. Roman < har@indecon.com>
George D. Thurston < George.Thurston@nyumc.org>
Kevin R. Cromar < kevin.cromar@nyu.edu>
AQMP Comment < aqmp@aqmd.gov>

July 26, 2016

Anthony Oliver, Ph.D. SCAQMD Air Quality Specialist aoliver@aqmd.gov

Dear Dr. Oliver,

I am an environmental epidemiologist and physicist who has had a long career at UCLA and I am an expert in the health effects of air pollution in California. I am writing regarding your planned presentation "Item #3: Preliminary Public Health Benefits of the Draft 2016 AQMP" at the July 28, 2016 SCAQMD Scientific, Technical & Modeling Peer Review Advisory Group (STMPR) Socioeconomic Meeting (http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=STMPRSocio_072816). I challenge the validity of your "Preliminary Health Impacts – Mortality" and your selective use of Jerrett 2005, Jerrett 2009, and Jerrett 2013.

Key aspects of my prior criticism of SCAQMD STMPR claims regarding the health impacts of PM2.5 and ozone in the South Coast Air Basin (SCAB) are contained in these three documents:

November 16, 2015 Enstrom Email to Cassmassi and SMTPR Staff re Ozone and PM in SCAB (http://www.scientificintegrityinstitute.org/Cassmassi111615.pdf)
November 22, 2015 Enstrom Table with 2000-2015 Results Showing NO PM2.5 Premature Deaths in CA (http://www.scientificintegrityinstitute.org/NoPMDeaths112215.pdf)
December 15, 2015 Enstrom Email to Roman Requesting NO IEc PM2.5 and Ozone Deaths for 2016 AQMP (http://www.scientificintegrityinstitute.org/Roman121515.pdf)

I strongly recommend that you carefully read all three documents, as well as all the weblinks that they contain. Then I strongly recommend that you discuss these documents with me, as well as with SCAQMD Health Effects Officer Jo Kay Chan Ghosh and IEc Principal Henry A. Roman. Finally, I strongly recommend that you announce during your presentation that several highly qualified doctoral-level scientists, including myself, are challenging the validity of your presentation, particularly your claims of "Premature Mortalities" in the SCAB.

Thank you very much for your attention to this important matter.

Sincerely yours,

James E. Enstrom, Ph.D., M.P.H. UCLA and Scientific Integrity Institute jenstrom@ucla.edu (310) 472-4274

cc: Jo Kay Chan Ghosh < jghosh@aqmd.gov>
Henry A. Roman < har@indecon.com>
George D. Thurston < George.Thurston@nyumc.org>
Elaine Shen < eshen@aqmd.gov>
Philip M. Fine < pfine@aqmd.gov>
Wayne Nastri < wnastri@aqmd.gov>