

January 13, 2025

James E. Enstrom, PhD, emails to CARB AQ Planning Chief Michael Benjamin, DEnv, and UCB Researcher Jason Su, PhD, that provide Evidence that Invalidates the 2024 EPA 9 µg/m<sup>3</sup> PM<sub>2.5</sub> NAAQS in California.

Important Points:

The WSTA Letter documents the unscientific and error-filled process followed by ACS and EPA since 1995 that has led to the current PM<sub>2.5</sub> NAAQS

(<http://www.scientificintegrityinstitute.org/WSTAACS120624.pdf>). This PM<sub>2.5</sub> NAAQS should NOT be implemented in CA because it will NOT improve health in CA. Instead, it will increase the regulatory burden and the cost of living in CA. The extensive evidence challenging the validity of PM<sub>2.5</sub> NAAQS will be presented to the 2025 EPA. CARB Staff should recommend to the Board that not proceed until after they have conducted and assessed a PM<sub>2.5</sub> NAAQS Symposium similar to the February 26, 2010 CARB Symposium on PM<sub>2.5</sub> Deaths described below.

Dr. Su has extensive expertise on the PM<sub>2.5</sub> deaths issue. He is a co-author of the December 5, 2011 CARB Contract # 06-332 "Spatiotemporal Analysis of Air Pollution and Mortality in California Based on the American Cancer Society Cohort: Final Report"

(<http://www.scientificintegrityinstitute.org/Jerrett120511.pdf>). I prepared an October 28, 2011 Compilation of Criticism by Eight Independent Experts (Enstrom, Briggs, Brown, Dunn, Fulks, Henry, Lipfert, Malkan) of a Draft Report for the CARB Contract # 06-332 and this criticism showed that there were NO PM<sub>2.5</sub> Deaths in CA in CPS II

(<http://www.scientificintegrityinstitute.org/JerrettCriticism102811.pdf>). However, this criticism was not addressed in the Final Report. Subsequent null findings in Enstrom 2017, Enstrom 2018, and Intrepid Insight 2018 conclusively show that there are NO PM<sub>2.5</sub> Deaths in California. In addition, my citations below challenge the validity of the entire PM<sub>2.5</sub> NAAQS.

On Mon, Jan 13, 2025 at 3:10 PM ARB SIP Planning <[SIPPlanning@arb.ca.gov](mailto:SIPPlanning@arb.ca.gov)> wrote:

Dear Dr. Enstrom,

I wanted to make sure that if you intended for your comments to be related to the Board Item on the PM<sub>2.5</sub> Area Designation Recommendations for the Revised Federal Annual PM<sub>2.5</sub> Standard that you submit them through the docket here: <https://ww2.arb.ca.gov/applications/public-comments>. The notice for this item is available here:

[https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/pm2.5\\_9ug\\_fed\\_standard\\_notice.pdf](https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/pm2.5_9ug_fed_standard_notice.pdf).

Sincerely,

Mark Hixson

Mark Hixson  
Staff Air Pollution Specialist  
Central Valley Air Quality Planning Section  
Air Quality Planning and Science Division  
(916) 264-9682

**From:** James E. Enstrom <[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)>

**Sent:** Monday, December 16, 2024 3:31 PM

**To:** Jason G. Su PhD <[jasons@berkeley.edu](mailto:jasons@berkeley.edu)>

**Cc:** Max Aung PhD MPH <[maxaung@usc.edu](mailto:maxaung@usc.edu)>; Sandrah Eckel PhD <[eckel@usc.edu](mailto:eckel@usc.edu)>; Elizabeth Kamai MSPH PhD <[kamai@usc.edu](mailto:kamai@usc.edu)>; Marianthi-Anna Kioumourtoglou ScD <[mk3961@cumc.columbia.edu](mailto:mk3961@cumc.columbia.edu)>; Benjamin, Michael@ARB <[michael.benjamin@arb.ca.gov](mailto:michael.benjamin@arb.ca.gov)>; Scheehle, Elizabeth@ARB <[Elizabeth.Scheehle@arb.ca.gov](mailto:Elizabeth.Scheehle@arb.ca.gov)>; Hixson, Mark@ARB <[mark.hixson@arb.ca.gov](mailto:mark.hixson@arb.ca.gov)>; Vanderspek, Sylvia@ARB <[Sylvia.Vanderspek@arb.ca.gov](mailto:Sylvia.Vanderspek@arb.ca.gov)>; Kindred, Alicia@ARB <[Alicia.Adams@arb.ca.gov](mailto:Alicia.Adams@arb.ca.gov)>; ARB SIP Planning <[SIPPlanning@arb.ca.gov](mailto:SIPPlanning@arb.ca.gov)>

**Subject:** CARB Implementation of 9 µg/m<sup>3</sup> PM<sub>2.5</sub> NAAQS

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December 16, 2024

Jason G. Su PhD <[jasons@berkeley.edu](mailto:jasons@berkeley.edu)>

Max Aung PhD MPH <[maxaung@usc.edu](mailto:maxaung@usc.edu)>

Sandrah Eckel PhD <[eckel@usc.edu](mailto:eckel@usc.edu)>

Elizabeth Kamai MSPH PhD <[kamai@usc.edu](mailto:kamai@usc.edu)>

Marianthi-Anna Kioumourtoglou ScD <[mk3961@cumc.columbia.edu](mailto:mk3961@cumc.columbia.edu)>

Dear CARB Health Analysis Consultants,

I am writing regarding the email messages below about the CARB implementation of the 9 µg/m<sup>3</sup> PM<sub>2.5</sub> NAAQS, particularly the December 11 email message from Dr. Michael Benjamin. I have requested a CARB Symposium to discuss the validity of the 9 µg/m<sup>3</sup> PM<sub>2.5</sub> NAAQS, but Dr. Benjamin has rejected my request. Thus, I ask you to examine and assess my overwhelming evidence that there are NO PM<sub>2.5</sub> deaths in California and that there is NO public health justification for the 9 µg/m<sup>3</sup> PM<sub>2.5</sub> NAAQS in California.

Dr. Su has extensive expertise on the PM<sub>2.5</sub> deaths issue. He is a co-author of the December 5, 2011 CARB Contract # 06-332 "Spatiotemporal Analysis of Air Pollution and Mortality in California Based on the American Cancer Society Cohort: Final Report"

(<http://www.scientificintegrityinstitute.org/Jerrett120511.pdf>). I prepared an October 28, 2011 Compilation of Criticism by Eight Independent Experts (Enstrom, Briggs, Brown, Dunn, Fulks, Henry, Lipfert, Malkan) of a Draft Report for the CARB Contract # 06-332 and this criticism showed that there were NO PM2.5 Deaths in CA in CPS II

(<http://www.scientificintegrityinstitute.org/JerrettCriticism102811.pdf>). However, this criticism was not addressed in the Final Report. Subsequent null findings in Enstrom 2017, Enstrom 2018, and Intrepid Insight 2018 conclusively show that there are NO PM2.5 Deaths in California. In addition, my citations below challenge the validity of the entire PM2.5 NAAQS.

Thus, it is very important that I receive an assessment from you regarding my evidence and my request for a CARB Symposium.

Thank you very much for your consideration and timely response.

Sincerely yours,

James E. Enstrom, PhD, MPH  
Retired UCLA Research Professor (Epidemiology)  
[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)  
(310) 472-4274

From: **Benjamin, Michael@ARB** <[michael.benjamin@arb.ca.gov](mailto:michael.benjamin@arb.ca.gov)>  
Date: Wed, Dec 11, 2024 at 1:22 PM  
Subject: RE: December 5 CARB Webinar on 9 ug/m3 PM2.5 NAAQS  
To: James E. Enstrom <[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)>  
Cc: ARB SIP Planning <[SIPPlanning@arb.ca.gov](mailto:SIPPlanning@arb.ca.gov)>, Sylvia Vanderspek <[sylvia.vanderspek@arb.ca.gov](mailto:sylvia.vanderspek@arb.ca.gov)>, Scheehle, Elizabeth@ARB <[Elizabeth.Scheehle@arb.ca.gov](mailto:Elizabeth.Scheehle@arb.ca.gov)>, Kindred, Alicia@ARB <[Alicia.Adams@arb.ca.gov](mailto:Alicia.Adams@arb.ca.gov)>, Hixson, Mark@ARB <[mark.hixson@arb.ca.gov](mailto:mark.hixson@arb.ca.gov)>

Dear Dr. Enstrom,

Thank you for your email yesterday regarding CARB's recent webinar on implementation of the 9 ug/m3 PM2.5 State Implementation Plan (SIP) in California. CARB's responsibility as regards SIPs is to work with the local air districts in California to identify areas that don't attain the relevant ambient air quality standard and then to develop measures that will provide the emissions reductions needed to meet federally mandated attainment deadlines. Our responsibility is not to establish the federal National Ambient Air Quality Standards (NAAQS) but simply to comply with them through the development and timely submittal of the SIPs to the U.S. Environmental Protection Agency (EPA). It is EPA's responsibility to establish the level of the NAAQS based on their analysis of the health literature.

In response to your request, I will not recommend that CARB sponsor a PM2.5 NAAQS symposium as I do not think it is either appropriate or needed at this time. When CARB and the air districts develop the implementation plans to meet this NAAQS, there will be opportunities for the public to participate. You may subscribe to our list-serve to receive notices related to this SIP on our website at [PM2.5 | California Air Resources Board](#).]

Regards,

Michael

Michael Benjamin, D.Env. | Division Chief  
Air Quality Planning and Science Division  
California Air Resources Board  
1001 I Street, Sacramento, CA 95814  
Cell Phone: (916) 201-8968  
VOIP: (279) 208-7963  
[Michael.Benjamin@arb.ca.gov](mailto:Michael.Benjamin@arb.ca.gov) | <http://www.arb.ca.gov>  
Pronouns: he/him/his

**From:** James E. Enstrom <[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)>

**Sent:** Tuesday, December 10, 2024 11:01 AM

**To:** Benjamin, Michael@ARB <[michael.benjamin@arb.ca.gov](mailto:michael.benjamin@arb.ca.gov)>

**Cc:** Benjamin, Michael@ARB <[michael.benjamin@arb.ca.gov](mailto:michael.benjamin@arb.ca.gov)>; ARB SIP Planning <[SIPPlanning@arb.ca.gov](mailto:SIPPlanning@arb.ca.gov)>; Sylvia Vanderspek <[sylvia.vanderspek@arb.ca.gov](mailto:sylvia.vanderspek@arb.ca.gov)>; Scheehle, Elizabeth@ARB <[Elizabeth.Scheehle@arb.ca.gov](mailto:Elizabeth.Scheehle@arb.ca.gov)>

**Subject:** Fwd: December 5 CARB Webinar on 9 ug/m3 PM2.5 NAAQS

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December 10, 2024

Dear Dr. Benjamin,

To better understand my December 5 comment about the scientifically unjustified 9 ug/m3 PM2.5 NAAQS, please read my December 4 email to Mark Hixson below and the December 6, 2024 Western States Trucking Association Letter to the American Cancer Society. The WSTA Letter documents the unscientific and error-filled process followed by ACS and EPA since 1995 that has led to the current PM2.5 NAAQS (<http://www.scientificintegrityinstitute.org/WSTAACS120624.pdf>). This PM2.5 NAAQS should NOT be implemented in CA because it will NOT improve health in CA. Instead, it will increase the regulatory burden and the cost of living in CA. The extensive evidence challenging the validity of PM2.5 NAAQS will be presented to the 2025 EPA. You should recommend to the Board that they sponsor a PM2.5 NAAQS Symposium similar to the February 26, 2010 CARB Symposium on PM2.5 Deaths described below.

CARB employees should act in the best interest of ALL CA residents and should not force CA residents to comply with unjustified EPA regulations. Please examine the 50+ current lawsuits against CARB and try to understand why CA residents are upset with CARB.

Thank you very much.

James E. Enstrom, PhD, MPH

----- Forwarded message -----

From: **James E. Enstrom** <[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)>

Date: Wed, Dec 4, 2024 at 9:00 AM

Subject: December 5 CARB Webinar on 9 ug/m<sup>3</sup> PM2.5 NAAQS

To: Mark Hixson <[SIPPlanning@arb.ca.gov](mailto:SIPPlanning@arb.ca.gov)>

Dear Mark,

I am writing regarding the December 5 CARB Webinar on the 9 ug/m<sup>3</sup> PM2.5 NAAQS:

<https://ww2.arb.ca.gov/our-work/programs/california-state-implementation-plans/statewide-efforts/sips-9-mgm3-pm2-5>

As per our conversation on Tuesday, please read/skim the March 28, 2023 Enstrom Comment to EPA to Retain PM2.5 NAAQS (<http://www.scientificintegrityinstitute.org/PM25Retain032823.pdf>). Focus on my March 2023 statement to EPA on the first two pages of my 36 pages of comments. I request the opportunity to read this same statement during the December 5 CARB webinar. EPA certified that the PM2.5 NAAQS was to remain at 12 ug/m<sup>3</sup> in December 2020. Instead of waiting the required five years to undertake the next review, EPA immediately conducted an illegal review during 2021-2022 in order to declare in the January 27, 2023 Federal Register that the PM2.5 NAAQS would be lowered to 9-10 ug/m<sup>3</sup>. EPA finalized the lowering at 9 ug/m<sup>3</sup> on February 7, 2024.

This new PM2.5 NAAQS will have a devastating economic impact on CA and it is NOT scientifically justified, as explained in my March 28, 2023 Comment to EPA. For early background on the intense controversy regarding PM2.5 deaths and the PM2.5 NAAQS, watch the February 26, 2010 "CARB Symposium: Estimating Premature Deaths from Long-term Exposure to PM2.5" ([https://cal-span.org/meeting/carb\\_20100226/](https://cal-span.org/meeting/carb_20100226/)). I presented extensive evidence of NO PM2.5 deaths in California. Michael Jerrett found no PM2.5 deaths in California. Five other leading PM2.5 investigators raised doubts about the validity of PM2.5 deaths and the PM2.5 NAAQS.

Thank you.

James E. Enstrom, PhD, MPH

Retired UCLA Research Professor (Epidemiology)

[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)

(310) 472-4274

----- Forwarded message -----

From: **California Air Resources Board** <[carb@public.govdelivery.com](mailto:carb@public.govdelivery.com)>

Date: Tue, Nov 19, 2024 at 5:00 PM

Subject: Notice of Public Workshop for the 9 ug/m<sup>3</sup> Annual Fine Particulate Matter National Ambient Air Quality Standard: Designation Recommendations and Inventory Updates

To: <[jenstrom@ucla.edu](mailto:jenstrom@ucla.edu)>

Having trouble viewing this email? [View it as a Web page.](#)

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[November 19, 2024](#)

**[Notice of Public Workshop for the 9 µg/m<sup>3</sup> Annual Fine Particulate Matter National Ambient Air Quality Standard](#)**

**[Designation Recommendations and Inventory Updates](#)**

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**[en español](#)**

[California Air Resources Board \(CARB\) staff invite you to participate in a public workshop on December 5, 2024 related to nonattainment designation recommendations and planning efforts for the 9 microgram per cubic meter \(µg/m<sup>3</sup>\) annual fine particulate matter \(PM<sub>2.5</sub>\) national ambient air quality standard \(standard\). This second workshop will discuss each nonattainment area recommendation along with proposed emission inventory improvements for the future state implementation plans \(SIP\). \*\*CARB staff encourage public engagement at this workshop and throughout the planning process.\*\* The SIPs will be submitted to the U.S. Environmental Protection Agency \(U.S. EPA\) for designated nonattainment areas in late 2027.](#)

[The workshop is on Zoom. The meeting will be conducted in English with Spanish interpretation available. Workshop materials, including the staff presentation and meeting recording, will be posted on the 9 µg/m<sup>3</sup> SIP webpage.](#)

[Date: Wednesday, December 5, 2024](#)

[Time: 5:00 p.m. to 7:00 p.m.](#)

[Virtual location: Zoom Webinar](#)

**[Register](#)**

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**[Background](#)**

[The Clean Air Act requires U.S. EPA to set health-based standards for numerous pollutants, including PM<sub>2.5</sub>. On February 7, 2024, U.S. EPA strengthened the annual PM<sub>2.5</sub> standard from 12.0 µg/m<sup>3</sup> to 9.0 µg/m<sup>3</sup>, based on an integrated assessment of an extensive body of new scientific evidence, which improved the body of knowledge regarding PM<sub>2.5</sub>-related health effects.](#)

The first step in addressing the lower standard is designating regions of the State as either attaining or not attaining the new standard. CARB staff analyzed calendar year 2021-2023 air quality data from California's statewide air monitoring network and identified areas that are anticipated to be nonattainment, attainment after exclusion of exceptional events (e.g., wildfires), or attainment/unclassifiable for the 9 µg/m<sup>3</sup> annual PM<sub>2.5</sub> standard. As shown in the map below, areas expected to be designated nonattainment are the South Coast, San Joaquin Valley, Bay Area, San Diego, Sacramento, Imperial, Yuba City-Marysville Area, Portola, and Mendocino areas. This workshop provides an opportunity for public feedback and input on regions' potential designations for the new PM<sub>2.5</sub> standard.

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CARB staff will be releasing the proposed PM<sub>2.5</sub> nonattainment area designation recommendations Staff Report on December 13, 2024. The Board will hear the CARB staff recommendations on January 23, 2025. CARB staff will then transmit the PM<sub>2.5</sub> nonattainment area designation recommendations for the 9 µg/m<sup>3</sup> annual PM<sub>2.5</sub> standard to U.S. EPA by February 7, 2025.

CARB staff will also go over emissions inventory improvements needed to begin the SIP development process. The categories that will be discussed include on and off-road mobile, farming operations, residential wood combustion, commercial cooking, fugitive dust, soils diesel internal combustion engines, prescribed fires, and other area sources. This workshop provides an opportunity for public feedback and input on the planned emission inventory updates.

### **More Information**

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### **Contact**

Please contact SIP planning staff at [sipplanning@arb.ca.gov](mailto:sipplanning@arb.ca.gov) with any questions regarding this workshop.

If you require special accommodation at the public workshop or need materials in an alternate format (i.e., Braille, large print), please contact Ms. Candace Clawson at [candace.clawson@arb.ca.gov](mailto:candace.clawson@arb.ca.gov) no later than 10 days before the scheduled workshop. TTY/TDD/Speech to Speech users may dial 711 for [California Relay Service](#).