

**AGENDA**  
**U.S. Environmental Protection Agency**  
**Science Advisory Board Staff Office**  
**Clean Air Scientific Advisory Committee (CASAC)**  
**Particulate Matter Review Panel**  
**Public Teleconference**  
**August 25, 2010**

[http://yosemite.epa.gov/sab/sabproduct.nsf/27F081DC1E647D888525776F0046327E/\\$File/CASAC+PM+Rev+Panel+August+25++2010+Agenda.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/27F081DC1E647D888525776F0046327E/$File/CASAC+PM+Rev+Panel+August+25++2010+Agenda.pdf)

**Purpose: To review CASAC's draft letter on *Policy Assessment for the Review of the PM NAAQS –Second 10 External Review Draft (June 2010)*.**

[http://yosemite.epa.gov/sab/sabproduct.nsf/webcasac/AD891A65C35DC3738525777B005B0A6F/\\$File/PM+PA-2+letter+8-10-10.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/webcasac/AD891A65C35DC3738525777B005B0A6F/$File/PM+PA-2+letter+8-10-10.pdf)

**Wednesday, August 25, 2010**

**10:00 am** Convene Meeting and Welcome Dr. Holly Stallworth, Designated Federal Officer

**10:05 am** Review of Agenda Dr. Jonathan Samet, Chair, CASAC

**10:10 am** Agency Comments Dr. Karen Martin, EPA Office of Air Quality Planning & Standards

**10:20 am** Public Comments (see attached list)

**11:05 am** Discussion of draft letter Dr. Samet and Panel

**1:00 pm** Adjourn

**National Ambient Air Quality Standards (NAAQS) Review Process**

<http://www.epa.gov/ttn/naaqs/review.html>

**Clean Air Scientific Advisory Committee (CASAC)**

<http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC>

**CASAC Particulate Matter Review Panel**

<http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommitteesSubcommittees/CASAC%20Particulate%20Matter%20Review%20Panel>

**Designated Federal Officer:**

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**California Members:**

Samet, Jonathan M. (Chair)	University of Southern California	Los Angeles, CA
Ashbaugh, Lowell	University of California, Davis	Davis, CA
Avol, Ed	University of Southern California	Los Angeles, CA
Grantz, David	University of California, Riverside	Parlier, CA
Phalen, Robert F.	University of California, Irvine	Irvine, CA
Pinkerton, Kent	University of California, Davis	Davis, CA

**Remaining Members:**

Brain, Joseph D.	Harvard University	Boston, MA
Cascio, Wayne	Brody School of Medicine at East Carolina University	Greenville, NC
Crapo, James	National Jewish Medical and Research Center	Denver, CO
Frey, H. Christopher	North Carolina State University	Raleigh, NC
Helble, Joseph	Dartmouth College	Hanover, NH
Henderson, Rogene	Lovelace Respiratory Research Institute	Albuquerque, NM
Hopke, Phillip	Clarkson University	Potsdam, NY
Kenski, Donna	Lake Michigan Air Directors Consortium	Rosemont, IL
Lippmann, Morton	New York University School of Medicine	Tuxedo, NY
Malm, William	Colorado State University	Fort Collins, CO
Moore, Jr., Charles Thomas	Western Governors' Association, Western Regional Air Partnership	Fort Collins, CO
Poirot, Richard L.	Vermont Agency of Natural Resources	Waterbury, VT
Russell, Armistead (Ted)	Georgia Institute of Technology	Atlanta, GA
Speizer, Frank	Harvard Medical School	Boston, MA
Suh, Helen	Harvard University	Boston, MA
Vedal, Sverre	University of Washington	Seattle, WA
Weathers, Kathleen	Cary Institute of Ecosystem Studies	Millbrook, NY

**Public Speakers for August 25, 2010 Teleconference**

1. Robert Wagner, International Dark-Sky Association (did not speak)
2. John Graham, Clean Air Task Force, Columbus, Ohio (did not speak)
3. Lee Brown, California Dump Truck Owners Association
4. William E. Davis, Southern California Contractors Association
5. Nick Goldstein, American Road and Transportation Builders Association
6. Scott Watson, Import Plywood Marketing Group
7. Rod Michaelson, Bay Cities Paving and Grading
8. Kurt Blasé, Coarse PM Coalition (unedited comments)
9. Sean Robledo Edgar, Clean Fleets Coalition
10. James E. Enstrom, Jonsson Comprehensive Cancer Center, UCLA
11. Michael Lewis, Construction Industry Air Quality Coalition
12. Skip Brown, Delta Construction Co., Inc.
13. Betty Plowman, California Dump Truck Owners Association
14. Bob Engel, Engel & Gray, Inc. (unedited comments)
15. Julie Goodman, on behalf of the American Petroleum Institute (unedited comments)
16. Joel H. Sherman, Grimmway Enterprises, Inc.

Audio File Used for Edited Transcript of Public Speakers

(<http://www.box.net/shared/b9ujffhb2i>).

Time from the beginning of the transcript is indicated in minutes and seconds.

**00:00**

STALLWORTH: I am going to go ahead with my opening statement. I'm Holly Stallworth. I'm the designated federal officer for the Clean Air Scientific Advisory Committee. And as always, I open these meetings with a reminder to our listeners that we... that CASAC is a federal advisory committee that follows the requirements of the federal advisory committee act meaning CASAC's deliberations are held in public at meetings for which advance notice is provided in the Federal Register. I as the designated federal officer ensure that the requirements of FAC are met. I will be taking minutes to summarize today's discussion. Once approved by the chair, these minutes will be posted on our website. We also provide opportunity for public comment and today we have 16 public speakers who will each be given 3 minutes. I just replaced yesterday's agenda with an approved agenda which has 16 public speakers. One change, in lieu of Skip Brown, John Dunn will be speaking on behalf of Delta Construction Company. Lastly I want to say that the SAB staff office has reviewed information relevant to conflict of interest and appearance of the lack of impartiality and determined that there are no issues for any of the panelists participating in this review. If you have joined us since I was reading my opening statement, could you please announce yourself.

EDGAR: Sean Edgar, Clean Fleets Coalition, Sacramento, California.

STALLWORTH: Thank you. Anyone else?

DUNN: John Dunn.

STALLWORTH: Thank you. And did I get you affiliation right that you would be speaking on behalf of Delta Construction?

DUNN: Yes. Actually I'm, I'm speaking instead of Skip Brown but...

STALLWORTH: Yeah.

DUNN: That's, that's initially what the assignment was.

STALLWORTH: Anyone else that has not announced them self? Ok, I'm going to turn the meeting over to our CASAC chair, Dr. Jonathan Samet.

**01:53**

SAMET: Good Morning everyone and welcome to a crowded agenda. I'll remind everyone that our major focus is on reviewing the current draft letter prepared by CASAC on the second draft policy assessment for the PM NAAQS. And this document comes out of our discussions at the meeting on 5/26 and 27. For the public commenters, versus your input, Holly mentioned 3 minutes. We'll be very strict about that. So I will tell you... we'll get you started and once you are 2 ½ minutes in, I will give you a warning and at 3 minutes you will need to end your presentation. And to the CASAC I would just suggest that we limit our questioning of the commenters to only the most critical items given the time frame for our call and the need to make certain that we do our business with preparing this, preparing this letter. And I know that there are a few little extant issues that need some substantive discussion today, perhaps. So let's see, let me turn things over to Karen Martin from the EPA office of Air Quality Planning and Standards for comments from the EPA. Karen.

STALLWORTH: Let me also ask folks to mute your line if you are not speaking.

**3:33**

MARTIN: Thank you. I want to just very quickly touch on 3 very specific points. The 1st point is, I want to just make clear the status of our work on Chapter 4 of the policy assessment document that addresses visibility. As we've shared with the panel. I want to make clear for the public audience as well, that as I indicated at the last CASAC meeting, we intended to explore whether we need additional time and possibly further review from the panel to complete our work on that chapter. Since the meeting last month, we've continued to work to evaluate alternative approaches to further simplify the speciated PM2.5 mass calculated light extinction indicator that was presented in the 2<sup>nd</sup> draft policy assessment. If we considered that this was based upon the advice of from the panel, that was provided in your individual comments, the discussion at the meeting as well as comments that are now in this draft letter, and that we now intend to complete this work, taking into consideration public comments that we receive on this chapter, and the public comments period extends to the end of this month, and then to incorporate it into the final policy assessment which we intend to complete around September. Therefore, we do not intent to prepare or to solicit CASAC and put on another draft of Chapter 4, since we feel that our efforts now to complete this chapter and further supervise the approach laid out in the second draft are reflective and consistent with the comments that we have already received. The 2<sup>nd</sup> point I wanted to speak to is, just to identify one place within the draft letter that you'll be discussing today, where we would like to encourage some further conversation among yourselves to hopefully to... some further clarification of the language. And don't be surprised to know that the paragraph on... specifically taking about, the paragraph on the 2<sup>nd</sup> page of your responses to the charge questions. It's in response to charge question 3.A.I. about confidence bounds on concentration response relationship and it's the 2<sup>nd</sup> paragraph. While we think we understand what your comment is and what you are intending to say, we think it would be helpful to have that further clarified. The 3<sup>rd</sup> point I wanted to speak to is, to recognize that we have gotten a large number of comments on chapter 3 of the policy assessment document on the PM10 standards and there's a large number of commenters in this meeting today and many of the ones we've received in writing, their comments are based on a misunderstanding of what we are presenting in that chapter and because potentially a number of public commenters today may also be expressing comments based on the same misunderstanding I wanted to speak to it. And that is, I want to make clear that the alternative standards that we are discussing in that chapter, specifically the alternative levels of the range of 65 to 85 are only being considered on our part in conjunction with a revised form. That is the 98<sup>th</sup> percentile form. A number of commenters apparently have been looking at the level as a separate matter and have been characterizing our assessment as being an assessment that is cutting the current standard in half. That of course as the panel understands is not the case. The range of 65 to 85 in conjunction with a 98<sup>th</sup> percentile form, is a range that encompasses a standard that is generally equivalent to the current standard. And I just wanted to make real clear so that we don't, we don't have comments working under that misperception. So that's, that's what I wanted to present.

**07:54**

SAMET: Ok, any questions... we have struggled mightily over these comments on confidence intervals I assure you

MARTIN: I'm sure you have.

SAMET: Any questions for Karen for clarification from the committee? Ok, let us turn to the public speakers and we'll begin with Robert Wagner, International Dark-Sky Association. You on? Robert Wagner.

STALLWORTH: I guess not. We'll just move onto the next one John.

SAMET: Ok, then John Graham, Clean Air Task Force, Columbus, Ohio. Ok. Lee Brown, California Dump Truck Owners Association.

BROWN: Am I on?

SAMET: Ok then, go ahead please.

**8:50**

BROWN: Lee Brown. I'm the executive director of the CA Dump Truck Owners Association. We are a statewide trade association that has represented businesses in the construction transportation industry since 1941. We presently represent 850 members ranging in size from one truck to over 400 diesel powered trucks that have been immensely affected by the diesel CARB rules. Three years ago, we had 1,700 members. We have lost 50% of our members and the remaining members are frankly under-employed in our state and industry.

Today, California has the highest unemployment and under-employment rate for all states with a large population and density. And I believe much of that can be traced directly back to the contrived science and policies of the UC Scientific Review Panel (SRP) here, that through its activist's positions which have led to draconian regulations of every shape and type has made it virtually impossible to build or manufacture anything in this state economically.

In this EPA CASAC report, we see many similarities between the science and claims that CARB used in their reports headed and written by an employee that was an academic fraud. We see that many of the same techniques of suppressing, manipulating and obfuscating data are in this CASAC report.

We're also disturbed by CARB's Executive Officer, James Goldstene's recent response to an editorial in a San Diego newspaper a month ago, he stated that the science related to particulate matter and its health effects are NOT 'uncertain' yet within the 2<sup>nd</sup> external review draft (June 2010) on page 2-21, the report (you all) state "we recognize that **important uncertainties remain** in this review related to understanding the temporal and spatial variable in PM2.5 concentrations, including PM2.5 components, and associated health impacts across geographic areas." We have been asking HEI, ACS and Dr. Krewski to perform a California specific analysis from his 2009 report for the last 7 months and we have been basically ignored. A report that should have taken **one day to perform**. Why, we believe, in fact know, there are no effects here in a state with supposedly the worst PM2.5 problems in the U.S. Why is that?

Secondly, CARB's Goldstene states or at least implies that this CASAC report is already "approved" as if it were finalized, finished, completed which would mean that this entire meeting today is an exercise in futility. What exactly is going on here? I want to know if this process is that compromised.

Finally, in his rebuttal, Goldstene eludes to the fact that within this "finalized" CASAC report there is a "new factor" for estimating premature deaths associated with PM2.5. We are curious as to what that means. We would hope that this "light extinction" concept, is not a "new factor." We look forward to hearing from this committee, as to exactly what, this new factor may be that Goldstene was alluding to.

Thanks

SAMET: Ok, thank you. And right on time. Questions from the panel? Ok then, next is William Davis, Southern California Contractors Association. Mr. Davis.

**12:01**

DAVIS: Good morning and greetings from Southern California where the news of the day is the 15 foot waves crashing in on our shore and wildfires roaring through our mountains, both events which are creating fine particulate matter. My name is Bill Davis. I'm the Executive Vice President of the Southern California Contractors Association. Our organization represents the interests of union signatory heavy construction contractors, the people who build our basic infrastructure here. We've been engaged on issues regarding PM2.5 ever since 2003 as part of our work with California Air Resources Board on efforts to develop regulations to control PM and nox emissions from on road and off road equipment. While we do not oppose the goal of reducing these emissions, we have consistently asked that compliance solutions are both achievable and affordable. We are happy to report that CARB appears to be moving in that direction after finding that they had over estimated these emissions from 200 to 400 %. As a part of the process, we studied the research projects, cited in your work relative to human health effects of fine particulates and to be quite honest, we were shocked to find that none of these studies, so far, have reached a relative risk of 2 or greater. Several demonstrate virtually no health effects at all, at least in California. But these regulations are going to cost our industry more than 25 billion dollars to remedy the emissions problem. This bring up one issue, which so far has received little attention from the EPA staff reports. I'm 6 foot 6 inches tall and weigh in at about 280. I'm not a real big fan of one size fits all rules. They don't work on airline seat assignments for example and they certainly don't work in environmental regulation. Your burden is to make sure that the regional variation, in terms of both actual substances that make up PM2.5 and their effects on human health are the basis for any change in current rules. This should be the subject of additional research and actual proof of causation before adding to the regulatory burden faced by our industry and the rest of the troubled economy of this nation. Before closing, we must address the idea expressed in the staff report as light extinction. This is an overreach based on the current evidence before you. It's a solution in search of a problem. It's also so absurd on its face that if you continue down this path you will find a wall of laughter burying your progress on other, possibly real, health issues. Please stop wasting your time with aesthetics, something that will be the source of monologs on Jay Leno, Conan O'Brien and Rush Limbaugh, not to mention congressional comedians. Finally, I want to share with you a maxim from the construction industry regarding

the need for any additional regulation on this topic. It's our rule, measure twice, cut once. Thank you.

SAMET: Ok, thank you. Questions from the committee? Ok, our next is put down as Nick Goldstein, American Road and Transportation Builders Association. Mr. Goldstein.

**15:11**

GOLDSTEIN: Thanks. I'm Nick Goldstein. Assistant General Counsel for the American Road and Transportation Builders Association or ARTBA. ARTBA represents more than 5,000 members nationwide involved in all sectors of the U.S. transportation, design and construction industry. I'd like to begin by thanking the committee for the opportunity to speak at today's teleconference of the PM review panel. The purpose of reviewing the max for PM is to bridge the gap between the scientific information and the judgments required of the EPA administrator in determining whether it's appropriate to retain or revise the PM standard. It is with this stated purpose in mind that ARTBA urges the EPA not to embark on any course of action, which would result in the heightening of the current PM max. In reviewing the PM max, EPA must be cognizant of the impact that more stringent PM standards would have on other federal initiatives. Nearly 36,000 people die on U.S. highways each year and many federally funded highway improvements are designed specifically to address safety issues. As such, imposing new PM standards that lead to impro... highway improvements being denied could be counter productive to improving public health. In considering the PM max and any possible changes, it is important to note the EPA's own reports have indicated an overall decline in air pollution thus far and the EPA recently stated between 1980 and 2008, GDP increased 126%, energy consumption increased 29%, U.S. population increased 34% and during the same time period, total emissions of the 6 principal air pollutants dropped by 54%. In addition, the transportation sectors in doing its share in helping to achieve reductions in overall PM levels. Specifically the FHWA has documented a 50% reduction in PM emissions from motor vehicle travel since 1970, despite an increase of 112% in the number of vehicles and 157% increase in the number of vehicle miles traveled during the same time period. Any tightening of the PM max by the EPA would greatly increase the stringency of PM regulation at a time when the existing standards are already resulting in noticeable progress. New requirements open the door to possible litigation and sanctions potentially resulting in the loss of federal funding for transportation improvement projects. This would be self defeating if the federally funded highway projects underway in these and other counties are the driving force behind the dramatic reductions in PM and other pollutants, which are already taking place. Furthermore, existing projects seem to be in compliance with the Clean Air Act when first undertaken could be thrown out of compliance once new standards are approved, exposing them to costly and time consuming litigation. In conclusion, ARTBA urges the committee to take notice of the current progress that has been and will be made in cutting the overall levels of PM before approaching policy decisions, which would result in further regulations. Additional regulations at this point is akin to moving the goal post and would run the risk of diluting current compliance efforts that should not be pursued. As such, ARTBA strongly feels any recommendations that tighten the PM standard, ignore the public health and welfare of those citizens and areas where transportation and improvement projects would be placed at risk. ARTBA remains committed to helping achieve a cleaner environment through the continuation of proven technological and regulatory efforts. Thank you again.

SAMET: Thank you. Just right up to 3 minutes. Questions from the committee? Ok, next presentation is Scott Watson, Import Plywood Marketing Group. Mr. Watson.

**18:26**

WATSON: Thank you. My phone has got some static on it so I'll make this as quick as possible, bear with me. I continue to receive updates from one of my favorite organizations here in California, I am in Northern California, CARB. And they continue to tell me what a fine job they're doing and green business is wonderful in California and its all I can do to stop from smoking a cigarette and joining hands with my neighbors to sing Kumbaya. All the while our legislature is out of session, a 19 billion dollar deficit- everything is just ducky. Matter fact, my last update from CARB told me that there were 5 new businesses that were doing a wonderful job and they reference 6 more businesses on their website and I got so excited. I even wrote the ombudsman and asked him, could you tell me how many dollars of sale these 11 pioneers in California represent? I'm still waiting for that answer because CARB is an absolute joke. The level of mismanagement that exists, the level of fraud, is absolutely driving me nuts. How anybody could cite CARB is beyond me because Mary Nichols should be gone. She's an outrage, she's an embarrassment and she couldn't manage a ham sandwich. Thank you.

SAMET: Ok, thank you. And I will... just... I think in response to the comment, I just wanna remind everybody that the focus of our discussion is on the letter to the EPA administrator concerning CASAC review of, of the, the CASAC policies assessment second draft policy assessment. That is our, our charge today. Next is, let's see, if I'm in order here it's Rod Michaelson, Bay Cities Paving and Grading.

**20:25**

MICHAELSON: Good morning. Can you hear me?

SAMET: Yes.

MICHAELSON: Alright. Rod Michaelson, Bay Cities Paving and Grading. I've been working with the CARB off road implementation group now for 2 ½ years in Sacramento. I'm trying to figure out how to get CARB's implementation of your rules and CARB's rules established and their... and CARB always uses the EPA as well, if we don't hit their standards, we won't get federal funds, therefore, its in your best interest to do everything we are telling you to do. I'm read... I did enjoy reading the 85 pages of all your questions and it doesn't seem like the science by any of you is determined as being a closed case of... some of you say that you need to take decades before it is resolved, fine particulate matter being not addressed yet. And but, here I've, we are a contractor that's got 350 employees and been in business since 47 and if we had followed CARB's original plan we would have been out of business in the next four years. We do 100 million dollars of work in this state a year and we would be out of business because we could have not, not kept up with their pace. So its very important that the science that you propose is correct. There is uncertainty on your part. I expect, or I would hope that you continue to study it, but if you make policy that is making us go out of business, that does no good for anybody. It creates more unemployment. So staying on your study there still seems to be a lot of questions before we get into the policy attainment. And one of your, one of your people did talk about that we should be talk... you guys should be talking about

policy, because nothing, nothing in science is in a vacuum and the unintended consequences of your actions need to be looked at very tightly. Thank you.

SAMET: Ok, thank you. Questions from the committee? Ok, our next public presenter is Kurt Blasé, from the Coarse PM Coalition. Mr. Blasé.

**22:57**

BLASÉ: Thanks. Can you hear me ok?

SAMET: Yes.

BLASÉ: Ok. Yeah this is Kurt Blasé I'm counsel to the Coarse PM Coalition. I just wanted to quickly direct the committee's attention to the letter I sent the committee on August 17, which included the preliminary results of the new analysis we've commissioned from Dr. John Richards, based on air quality data submitted by our members of the effects of the PM2.5 standard in the range of 65 to 85 with a 98 percentile form, as Karen mentioned earlier. Dr. Richards analysis is preliminary, but it indicates that a standard of 85 would be significantly more stringent than the current standard in the West and Midwest, largely as a result of rural crustal dust emissions and would often be exceeded by background concentrations. In the east and the south, where the urban dusts are more heavily represented, the PM part preliminary analysis indicates that such a standard would be less than the current standard. We are in the process of reviewing the draft letter that you are discussing today. We have reviewed it. It appears to us the recommendations for coarse PM are based directly on the analysis in the policy assessment including that a standard of 85 with 98 percentile form would generally be equivalent to the current standards. Our preliminary results from Dr. Richards analysis indicate that such a standard is not the equivalent of the current standard and would have the effect of increase stringency and control and rural crustal emissions in the west, less stringency in controlling eastern urban dust. We believe this contradicts the basis in the draft PA for the committee's recommendations in the draft letter. We ask you to reconsider them on the basis of this information. I would love to be able to answer questions for you but I couldn't get Dr. Richards to be available today. He is traveling today. So what I'll have to do is take questions and present them to him and let him get back to you in writing. But whether today or otherwise, we would like to hear from any of you that are interested in our analysis whether criticisms, comments, support, anything you have to say we'd like to hear from you because it is very important to us. And we will be... we plan to continue to do this analysis and to grow this database through the proposal in February. Thank you very much.

SAMET: Ok, thank you. Questions?

STALLWORTH: Phalen.

**25:22**

PHALEN: This is Bob Phalen. Do you have a website where we could see that report?

BLASÉ: I don't...

STALLWORTH: Bob. This is Holly Stallworth. Let me just point out that the Coarse PM Coalition's technical comments are posted on our website as I noted in my email.

That, along with comments from the American Lung Association, American Petroleum Institute and the International Dark Sky Association are posted on our webpage for this meeting.

SAMET: So the letter that was mentioned is posted?

STALLWORTH: Yes. That's correct.

PHALEN: Thank you.

STALLWORTH: The letter and their appended technical comments.

**25:57**

VEDAL: Hi this is Sverre Vedal. I had a quick look at that letter and also listened to the comments, obviously the... here we have a situation where, you know, the air... they're not, they're not dealing with this notion that this represents a massive change from the PM standard but are fully cognizant of the change in the form of the standard. And I guess, you know I, I'm sympathetic in many ways to this, to this, if in fact it holds water, and I guess what I'm asking is whether Karen Martin and her staff have, have, have looked into whether this is in fact the case. I mean we were all aware that the change in the form were gonna have, there was gonna be some effects on that where some areas would be, there would be in fact more stringent and other areas less and we were concerned about there being less stringency by, by, by moving to this other form. The, the geographic disparity in the stringency is still troublesome and I guess I, I don't have the insight onto that but I guess I would, I would like to have some, some a, some a, addressing of those sorts of issues.

SAMET: Let's see. I guess there's... I have two thoughts Sverre, is whether Karen wants to respond and I guess the other is whether our letter efficiently expresses the point of view that you have or individual comments. I think this problem has been... issue has been recognized in discussions around coarse PM going back to prior reviews of the PM max. Karen, comments?

**27:46**

MARTIN: Yes. We have not and yet had a chance to go through details of the analysis that came with those comments. We fully intend to do so and consider them as we work to finalize the chapter three. And as you know, we recognize the differences and we have a regional analysis presented there and we will consider this and any other comments that speak to it to, to complete that discussion of the final document.

SAMET: Ok, thank you. Lets move on. Our next presenter is Sean Edgar, Clean Fleets Coalition. Mr. Edgar.

**28:24**

EDGAR: Good Morning committee members and Dr. Stallworth. Thank you for the opportunity to speak to you this morning. My name is Sean Edgar, I'm the Executive Director of the Clean Fleets Coalition, based in Sacramento, California, representing vocational truck associations and their owners throughout the state. I speak to you this morning with the lens of having functioned for the last 10 years on fleet rules

issued by the California Air Resources Board. I've been working in public policy for the last 20 years. I confess to being a political scientist not a, not an air quality scientist. And I would like to just reference in my limited time, the February 2010 symposium that was held in Sacramento, sponsored by the Air Resources Board and attended by many members of academia. I'll root this reference to that meeting by saying that I am a product of the University of California, having earned a degree in Political Science at UC Berkeley. And not since my time on campus in the 1980's have I found so much controversy and shall I say, dissension amongst academics relevant to the issue that you are discussing today. And I would encourage the committee to thoroughly review the remarks, especially those of Dr. James Enstrom and those of Dr. Robert Phalen in your deliberations on whatever letter that you propose to issue to federal EPA because that symposium, in my mind, created a significant amount of, of, of new information that has been unseen or unheard for the last 10 years that I have been working on fleet rules. I've had the fortune or misfortune to work on every fleet rule that the Air Resources Board has done for the last 10 years and in, in that time span, all of the science that has been used to justify those rules was characterized as rock solid, it was with a extremely high level of confidence that there was good public policy outcomes and good public health outcomes as a result of the rules. And the February 2010 symposium really opened my eyes and I think that there really needs to be a full understanding by the committee and you Dr. Stallworth on exactly what was said and particularly Dr. Enstrom, who I believe will be on the call today, and Dr. Phalen who I know is on the call, really have a wealth of knowledge to contribute. So with that, I'll conclude my remarks just to say that public health science and air quality science is what you all are charged to work in. The space that I work in, political science, has real consequences to real people in the real economy today and I would encourage adding to the remarks of Mr. Goldstein, Mr. Brown and Mr. Davis that the work you do is extremely important. We ask that you fully deliberate it and the symposium that I referenced from February 2010 and would be a key.....

SAMET: Thank you for your time Edgar.

EDGAR: Thank you.

SAMET: Ok, questions? Ok, our next presenter is James Enstrom, Jonsson Comprehensive Cancer Center, UCLA. Dr. Enstrom.

**31:45**

ENSTROM: Hello. Thank you for allowing me to speak. My name is James Enstrom. I am an epidemiologist at UCLA, specifically the Jonsson Comprehensive Cancer Center. I'm quite concerned that the section of the Second External Review Draft on health effects associated with long term PM2.5 exposure (page 2-15 and Figure 2-4 on page 2-62) does not accurately reflect all the available epidemiologic evidence, particularly the evidence specific to California. My 2005 paper, using the California Cancer Prevention Study, is entirely omitted, as is every paper from the California Adventist Health Study of smog (AHSMOG). These studies were included in the First External Review Draft of March 8, 2010 and in the February 26, 2010 presentation made by Dr. Mary Ross at the CARB symposium on PM2.5 and premature deaths in Sacramento. These studies and other available evidence should be included in the final versions of the EPA policy and risk assessments for PM2.5 and they should be fully and accurately described. And these studies should be included in Figure 2-4. In particular, this figure should be expanded to include one section devoted to all

causes of death and another section devoted to specific causes of death. In addition, the section entitled, "Uncertainties in the Evidence," on page 2-20, should be revised in order to accurately and adequately discuss the geographic variation in PM2.5 mortality risk across the United States. All the uncertainties involved in establishing a casual relationship between PM2.5 and mortality should be adequately discussed. I intent to submit my specific comments regarding the Second External Review Draft in writing to EPA and I thank you for this opportunity to speak.

SAMET: Ok, thank you. Questions? Ok, move on to our next presentation. Michael Lewis, Construction Industry Air Quality Coalition.

**34:27**

LEWIS: Yes, thank you Bob.

SAMET: Lewis.

LEWIS: My name is Michael Lewis. I represent the Construction Industry Air Quality Coalition, which is an organization of the major construction associations in California, which represents probably several thousand contractors and certainly most of the largest contractors in the state. And we have been for the last 20 years involved in air quality issues that effects construction activity. And I guess I wanted to, to comment on a couple of things in your letter. One was, was I think a recognition that there's a certain amount of scientific uncertainty and perhaps a great deal of it in some of this data. We in California have had a rough experience with that in the last couple of years and I think many of us who are lay people and not scientists have come to learn more about PM2.5 and PM10 than we ever thought possible and are struggling to try to deal with the scientific end of the decision making and policy setting process because it was something we just assumed was, was absolute in its determinations and I think what we've come to learn is, that's not the case. There's a great deal of disagreement amongst the scientists that sometimes the data is cherry picked for purposes of coming to a conclusion that not all of the data gets included in the evaluation, I think as Dr. Enstrom has mentioned. We learned in California that despite research that was done by specific studies that perhaps some of the data was tortured to reach a conclusion in particularly with premature death. And when we... when CARB assembled all these scientists in one room, earlier this year, and they were in a public forum presenting their positions I think that all of them finally concluded that they couldn't establish, at least in California, a link between 2.5 and premature death. And I think that was a revelation that surprised many of us and I thinks it's something that, that needs some extra consideration on your part in reaching the conclusions that you are attempting to get to. Obviously there are regional differences in the impacts of 2.5. A one size fits all standard may not be the appropriate conclusion and we would ask you to at least recognize those differences and those impacts and recognize the breadth of the research that's being done, has been done and make sure that it all gets included in your consideration. Thank you.

SAMET: Ok, thank you. Questions or comments? Ok, next, Skip Brown, Delta Construction Company.

**37:27**

DUNN: I'm John Dunn. I'm taking Skip Brown's place. Can you hear me?

SAMET: Yeah ok so, ok, this is the exchange. I'm sorry, who's speaking?

DUNN: John Dunn.

SAMET: Ok, John Dunn. Ok, go ahead.

DUNN: I'm an emergency physician and an attorney. I'm familiar with toxicology, epidemiology and the rules of evidence that are applicable in federal court. 15 years ago the CASAC chaired by Roger McClellan rejected the science proposed by the EPA because it was inadequate to support new air standards. And I ask that the CASAC consider its letter as an opportunity to do the same thing today for the same reasons. I assert that properly informed federal judge using the rules for proof and observational population studies from the chapter on epidemiology by Leon Gordis and incidentally I assume Dr. Samet, that you're gonna write the chapters on the 3<sup>rd</sup> edition, and others in the federal judicial system reference manual on scientific evidence will ask the EPA representatives the dispositive question: Where do you show effects on human health with a relative risk of 2 or more? The rule that observational studies must show effects of 100% or more, a relative risk of 2 or more, cannot be broken for the convenience of EPA policy makers since their claim is that they are saving lives. The small particle studies relied on by the EPA for many years are extremely primitive in their analysis of effect, limited to premature death effects and death certificate analysis and never reach adequate levels of effects proven to support EPA regulatory proposals. That would be a level of a relative risk of 2 or more. The CASAC should, in 2010, reject the science that the EPA says supports its new regulations, just as the CASAC did in the mid 1990's. The results of all the studies are small premature death effects less than 20% when they show anything. Some studies like Enstrom's, show no death effects at all. And the current political and regulatory policy environment, entities like the CASAC are repeatedly and inappropriately asked to ignore science rules on proof of toxicity and approve and support new and more aggressive regulations that have negative economic effects with real detriments to the welfare of society and people. Effects of economic deprivation include shortened life and decreased quality of life. And observational population studies can easily be effect of data dredging and do not neutralize the confounders. The CASAC must decide whether to insist on good science in the public interest, good proof of toxicity before regulations are instituted or the CASAC will be a part of the problem and they will approve EPA actions that are not justified because they are not supported by good science. Thank you for your attention.

SAMET: Thank you. One comment. Leon Gordis is... and others, are thinking of revising the 3<sup>rd</sup> edition of that chapter. Questions from the committee? Ok then next, Betty Plowman from the California Dump Truck Owners Association. Ms. Plowman.

**40:48**

PLOWMANN: Hi. Thank you. Yes I'm Betty Plowman. I'm the membership director for the California Dump Truck Owners Association. Our residents are dying prematurely, that is for sure. But these deaths are not due to PM2.5. These deaths are occurring because of the poverty and unemployment now ravaging our state. I cannot quote to you the number of deaths currently attributed to PM2.5 because these figures change almost daily depending on the speaker. The last communication from CARB had these deaths anywhere from 1,600 to 19,000 per year. In fact, when I

questioned CARB about these fluctuations, I was told by a staff member that these were guesses. I would say that if lives are being destroyed, it should be based on more than a guess. I would like to direct your attention to a recent study conducted by the Robert Wood Johnson Foundation from the University of Wisconsin and entitled County Health Rankings. It includes every county in the United States. I was most interested in California and was quite surprised to learn that our unhealthiest county in California is Del Norte, which borders Oregon and the Pacific Ocean. Del Norte County has zero particulate and ozone days and this unhealthy rating is attributed to poverty and unemployment. I would also like to point out that CARB has always had within their reach a test to read opacity levels from diesel engines and in my opinion this could have gone far if it had been implemented correctly to eliminate air pollution. I have since learned from other air pollution experts that the EPA has always tried to distance themselves from tail pipe testing and I have to wonder why. Several states have this procedure in place with one critical element that California does not have and that is tying this to DMV registration. A dirty truck that could not pass this test could not be registered. Instead, California only has spot checks on businesses with an officer going to the address of the company. Not a good method of enforcement. If there are 10% of the trucks that we now call low hanging fruit or operate dirty, I agree 100% this is not who we want operating in California. In fact, let's reduce the current legal levels by half. I am looking at a map of the United States, which I obtained from the EPA website on June 3, 2010 titled Fine Particles and Mortality Risk. I must admit, I am confused when I see the rust belt states listed as high mortality and there is not a PM2.5 relationship to mortality in California. Can anyone explain this to me? Thank you.

SAMET: Ok, are you finished with your presentation?

PLOWMAN: Yes sir.

SAMET: Ok, thank you. Questions? Ok then next, Bob Engel, Engel & Gray, Inc. Mr. Engel.

**43:51**

ENGEL: Yeah, Bob Engel. I'm with Engel & Gray. I'm a small business person. Run a trucking company in a regional composting facility. Large document so it's a lot to go through. My main comment is with the policy assessment that does not include secondary health effects. As being a small business person, I think the secondary public health effects are probably the crutch of the argument. I really would like you gentlemen to consider and go over because this means to so many people. Some of the general question I've come up with is, why does the study not include all of the evidence. In looking through the exhibits, some of the studies were dropped from, it seems that were dropped from the study that you based your letter on and then why have some of the studies been deleted and or omitted. I don't... I wanted to know the reason why they were omitted and it doesn't seem that the study addresses the geographical differences across the United States. And that seems that it's pretty crucial when you are developing a letter that other, other regulations are going to be tied to when they are not addressing the specific geographical regions. Thank you very much for your time.

SAMET: Ok, thank you. Questions and or comments? I will say maybe perhaps as a clarification to some comments if you look at the 3 documents, the a, the a

Integrated Science Assessment is a document that includes all the studies and then as the agency moves forward, in terms of its particulate exposure analysis and the policy documents, it does not necessarily recite every document, I'm sorry, every study that was in the initial review of the a, scientific evidence and I think again, just for the point of clarity, we are , are considering a national ambient air quality standard, which at the moment has been set on a, on a, on a national basis. We recognize that there's variation across the country in the nature of the pollution source and particulate matter characteristics. Let's move on next. Julie Goodman on behalf of the American Petroleum Institute. Dr. Goodman.

**46:27**

GOODMAN: Thank you very much for the opportunity to speak today regarding the 2010 PMPA. In the PA, your CPA considers several semi-ecological studies of PM2.5 and health effects that rely on that rely on either traditional or flexible Cox proportional hazard or PH models to estimate concentration response associations and calculate risks. And at the last CASAC meeting, questions were raised regarding whether the use of the Cox PH models was appropriate. So now I've described how the underlying assumptions of the traditional Cox PH model are not always met in these PM studies and this could lead to biased risk estimates. And while flexible Cox PH models used in other PM studies are considered in the ISA and also the PSA, are not dependent on these assumptions they are dependent on parameter specifications and there is currently no standardized method for determining which parameters are most appropriate and models that fit the data equally well can have different shapes and result in different risk estimates. The traditional Cox PH model is based on 2 main assumptions. In several studies relied on in PMISA and PA these assumptions are violated. For the 1<sup>st</sup> of that, effects of exposure and other covariates on the hazard are constant over the study period. And in fact, it's far more likely that at least some of the impacts of exposure and other potential confounders vary over time. For example, this isn't shown to be the case for the effects of smoking on cardiovascular mortality. The second assumption is that exposure and other covariates contribute linearly to the natural log of the hazard ratio. One notable example is body mass index, or BMI. BMI can be a confounder of the PM2.5 exposure mortality association and has been shown to contribute non-linearly to mortality risk. So, overall the validity of these assumptions of the Cox PH model were not systematically tested in studies relied on by US EPA and the impacts of potential violations have not been systematically assessed, meaning they could lead to biased CR curves and result in risk estimates. Now, because of this, several researchers have developed a new Cox PH model to more accurately describe real world data. This model offers added flexibility and doesn't require the standard assumptions of the original Cox PH model, but it does prevent the cost of a more complicated model. Also, flexible cost PH models and risk estimates based upon them are dependent upon parameter and model specifications. Estimates of both non-linearly and time dependents can vary depending on the degrees of freedom and other parameters and models that fit the data equally well can have different shapes and result in different risk estimates. And although a few methods have been suggested to choose the most appropriate model parameters, none of them systematically assessed so one cannot know what certainty which risk estimate are most reflective of actual risks. In conclusion, at this time, in this review, CASAC should recommend that the administrator does not change the PM max. In the next review cycle, you will see PH issues addressed whether the over reliance on studies that do not verify model assumptions or do not require those assumptions lead to

biased concentration response functions particularly at low exposure concentrations. Thanks.

SAMET: Thank you. Questions from the committee? Comments? Ok next, Joel Sherman , Grimmway Enterprises.

**49:37**

SHERMAN: Yes. First of all, let me apologize in case a train goes by my office and you hear it. It's just my location. First I would like to thank Dr. Samet and the rest of the advisory committee for the opportunity to speak today. My name is Joel Sherman and I am the Director of regulatory compliance for Grimmway Enterprises, Inc. Grimmway is one of the largest growers, packers and shippers of carrots, carrot products and organic vegetables in the United States. We farm throughout California and provide jobs to approximately 7,000 people. We consider it an honor to grow healthy products that find their way onto virtually every table in the United States including Canada. We firmly believe that farmers are the original environmentalists and we at Grimmway are just as serious about our responsibility to uphold farming's rich tradition as stewards of the land. All of us want clean air and water and we all applaud and support well researched and well reasoned efforts to improve the quality of our daily lives. However, we believe that such efforts must not be created in a vacuum. They must be balanced against many competing but equally important factors including job creation, the cost of living, and maintaining a level playing field with respect to the domestic and foreign competition. I'm not here to dispute the science but suffice it to say that, our farming experience coupled with our own understanding of the scientific process and recent events regarding scientific credibility have reinforced our skepticism about your opinions regarding the health effects of fine particulate air pollution. Furthermore, the economic impact of additional regulations on farming, transportation and the construction industries has been grossly underestimated. Due to the diverse nature of our operations, we at Grimmway are faced with an increasingly complex regulatory environment. In the area of diesel engines alone, we must juggle numerous differing and competing requirements concerning our on road vehicles, off road vehicles, stationary sources and TRU's just to name a few. The cost of replacing or retrofitting these engines will further diminish our competitiveness in an increasingly global economy. The financial impact will adversely affect our company, our employees and the communities in which we do business. It is especially frustrating to have this discussion at a time when much of our country is struggling economically. National unemployment rates are alarmingly high. The county in which we do the majority of our farming has one of the highest unemployment rates in California. Around 38%. Additional regulation will only increase our financial burden and make it harder to create and sustain jobs. Especially at a time when job creation is of such vital importance. Certainly we all understand the need to protect the health of every citizen. To that end, our company grows vegetables both conventional and organic while at the same time, protecting those natural resources for which we are responsible. But a recent study of 56 of California's 58 counties identified poverty as one of the key factors dictating poor health in a given community. But higher employment levels generally lead to better health. Increased regulation will undoubtedly lead to increased...

SAMET: Thank you for your comments. Your time is finished. Thank you.

SHERMAN: Thank you.

SAMET: Let me ask, when we began there were 2 commenters who were not on. Robert Wagner and John Graham, have you joined the call. Ok, well, they're not... we will leave the public comment period now. I'd like to thank you all for your comments and input and we value your comments as does the agency.

**53:11** End of Audio File

**NOTE:** All "uh's," "um's," and stuttering has been edited from this version.