

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350  
Sacramento, CA 95833  
(916) 274-5721  
FAX (916) 274-5743  
Website address [www.dir.ca.gov/oshsb](http://www.dir.ca.gov/oshsb)

**SUMMARY**  
**PUBLIC MEETING/PUBLIC HEARING/BUSINESS MEETING**

November 19, 2009  
Costa Mesa, California

**I. PUBLIC MEETING****A. CALL TO ORDER AND INTRODUCTIONS**

Chairman MacLeod called the Public Meeting of the Occupational Safety and Health Standards Board (Board) to order at 10:00 a.m., November 19, 2009, in the Costa Mesa City Council Chambers.

**ATTENDANCE****Board Members Present**

Chairman John MacLeod  
Jonathan Frisch, Ph.D.  
Bill Jackson  
Jack Kastorff  
Guy Prescott  
Willie Washington

**Board Members Absent****Board Staff**

Marley Hart, Executive Officer  
Mike Manieri, Principal Safety Engineer  
David Beales, Legal Counsel  
Tom Mitchell, Senior Safety Engineer  
Bernie Osburn, Staff Services Analyst  
Chris Witte, Executive Secretary

**Division of Occupational Safety and Health**

Len Welsh, Chief  
Steve Smith, Principal Safety Engineer  
Mike Horowitz, Senior Industrial Hygienist

**Others present**

Fran Schreiber, Kazan et al.  
Steven Johnson, ARC-BAC  
Peter Riley, DOSH  
Deborah Gold, DOSH  
Connie Leyva, UFCW & California Labor Fed.  
Bob Hornauer, NCCCO  
Barbara Materna, CDPH  
Val Schaeffer, Federal OSHA  
Tina Kulinovich, Federal OSHA

Dave Harrison, Operating Engineers Local 3  
Peter Greyshock, SoCal COSH  
Mary Kochie, DOSH  
Zohra Ali, DOSH  
E.J. Penewell, M.R.S. OSHA Safety  
Jay Weir, AT&T  
Joan Gaut, CTA  
Joel Foss, DOSH  
Larry Pena, SoCal Edison

David O'Connor, Federal OSHA  
Dan Leacox, Greenberg Traurig  
Kevin Bland, CFCA & RCA  
Wendy Fischler, Affinity Flavors, Inc.  
Bruce Wick, CalPASC

Eric Brown, SoCal Edison  
Bo Bradley, AGC of California  
Cory Bykosky, Dynalectric  
Sherrell Reggie, Affinity Flavors, Inc.  
Julie Broyles, Grocery Manufacturers Assn.

B. OPENING COMMENTS

Chair MacLeod indicated that this portion of the Board's meeting is open to any person who is interested in addressing the Board on any matter concerning occupational safety and health or to propose new or revised standards or the repeal of standards as permitted by Labor Code Section 142.2.

Chair MacLeod stated that the Board had received a request to combine the Business Meeting discussion regarding Petition 507 with anyone who wishes to comment on that petition during the public meeting. Therefore, the Public Meeting will be reconvened for the Petition 507 discussion only during the Business Meeting. Anyone wishing to comment on that petition may do so at that time.

**Bob Hornauer of the National Commission for the Certification of Crane Operators (NCCCO)** stated that in the next 12 months, NCCCO will be concentrating on the recertification process, as described in the handout distributed to the Board members immediately prior to the meeting. That handout is a brochure designed for the crane operators to understand the requirements for recertification.

The regulation was enacted in 2005, and there were approximately 4,900 operators certified that year. NCCCO is still testing and certifying crane operators on a fairly brisk basis, and over the four-and-a-half-year period between the time the regulation was enacted and the present, NCCCO had 18,600 candidates take 51,491 exams. One significant change since the original certification process was implemented is that there is now a computer-based testing process where an operator has the option of going into a testing center and taking the test on the computer. The computer-based test is an option; it does not replace the paper and pencil test.

On the practical exam side, there are no 161 practical examiners in the State of California, although not all of those are current. If a practical examiner has not given a practical exam in a 12-month period, he or she is required to go back to a one-day workshop; if he or she has not given a practical exam in a 24-month period, the entire workshop must be repeated. NCCCO also has 33 practical examiners for hire.

Since 2004, NCCCO has conducted 22 mobile crane, three signal-person, and three rigger practical exam workshop. The rigger and the signal-person exams go beyond the State of California requirements. The signal-person program has been available for approximately a year, and NCCCO has approximately 15 practical examiners in the state. The rigger program is fairly new, and there are approximately seven practical examiners in California. Two upcoming programs are Master Crane Operator, which acknowledges those individuals who have been in the industry for a long period of time that go beyond the basics, but it does not change any of the other programs. In order to qualify for this program, a candidate must have 10,000 hours of

operation time. NCCCO also is working with the State of Washington to develop a certification process for the State of Washington that would also serve as a template for a national certification process.

Currently in California, there are approximately 12,000 operators, and NCCCO is performing a lot of recertifications this year.

C. ADJOURNMENT

Chair MacLeod adjourned the public meeting at 10:09 a.m.

II. **PUBLIC HEARING**

A. PUBLIC HEARING ITEMS

Chair MacLeod called the Public Hearing of the Board to order at 10:09 a.m., November 19, 2009, in the Costa Mesa City Council Chambers.

Chair MacLeod opened the Public Hearing and introduced the first item noticed for public hearing.

1. TITLE 8:     **LOW-VOLTAGE ELECTRICAL SAFETY ORDERS**  
Division 1, Chapter 4, Subchapter 5, Group 1  
**Low-Voltage Electrical Safety Orders—Addendum**

Mr. Manieri summarized the history and purpose of the proposal, and he indicated that it was ready for the Board's consideration and the public's comment.

There was no public comment on this item.

Chair MacLeod introduced the next item noticed for public hearing.

2. TITLE 8:     **GENERAL INDUSTRY SAFETY ORDERS**  
Division 1, Chapter 4, Subchapter 7, Article 109  
Section 5197  
**Occupational Exposures to Food Flavorings Containing Diacetyl**

Mr. Horowitz summarized the history and purpose of the proposal, and he indicated that it was ready for the Board's consideration and the public's comment.

**Connie Leyva, President of United Food and Commercial Workers (UFCW) Local 1428 and President of the California Labor Federation**, stated that the UFCW and the California Labor Federation petitioned the Board for an emergency temporary standard three years ago as the result of popcorn lung among labor and manufacturers in the State of California beginning in 2004. The UFCW is especially concerned with this issue because of the workers who work in manufacturing; they make everything from cookies to chips, dogfood to cheese, and butter

flavoring is found in all of these items. The Grocery Manufacturers Association (GMA) readily admits that artificial butter flavoring is found and is present in thousands of products. Without a diacetyl standard, these workers will continue to remain vulnerable and unprotected.

While the UFCW saw the need for prompt action on the regulatory front when they petitioned the Board in 2006, they are pleased that the Board is poised to enact a permanent diacetyl standard today. This standard was preceded by the important work of Cal-OSHA in flavor manufacturers inspections, citations, and the special emphasis program (FISHEP). They teamed up with NIOSH, which has special expertise from the microwave popcorn plant investigations as well as the California Department of Health Services and the Flavor and Extract Manufacturers Association (FEMA). Cal-OSHA is once again taking the lead in workplace hazards through investigation and regulation. What this comes down to is that no worker should go to work and be concerned about making enough money to put food on the table for their family and also be worried about being exposed to this chemical that could, at the very least, cause a health hazard to them and at the worst, often death.

There is much good in the proposed standard: medical removal; medical surveillance; control measures; sampling; training; and regulated variables. These all are necessary for protecting workers from this chemical. There are, however, three areas of concern for the UFCW. The first is the one-percent concentration of diacetyl. There is simply no data that supports that one percent is a sound number; the UFCW feels it is just an arbitrary number. Conversely, the food and flavoring industries, who may be the source of this number, can present no data that less than one percent exposure to diacetyl will not be harmful. The UFCW is especially concerned about the thousands of workers who make our food every day and are exposed to even very small amounts of diacetyl.

The second condition that triggers the standard is worker illness. The UFCW believes that the standard should simply reference obstructive and restrictive lung disease rather than fixed obstructive lung disease. UFCW's medical colleagues do not believe that there is really such a diagnosis as fixed obstructive lung disease. There is research that has found workers exposed to diacetyl have reversible disease. The spectrum of diacetyl associated lung disease is still being defined, and the UFCW is concerned that by limiting the scope of lung disease to fixed obstructive lung disease, workers will not receive the proper follow-up care that they need to prevent further exposure to the permanent disease.

A third concern regards sampling and analytical protocol, which is referenced in Appendix A. As with diacetyl associated disease, methods for sampling and analyzing diacetyl will emerge as the standard goes into effect and as Federal OSHA works toward a national standard on flavorings. As long as the method used is at least as accurate and reliable as the one the UFCW is citing, the method should be allowed.

The UFCW has outlined these concerns in writing, and other members of the labor coalition will speak to the Board today as well. Ms. Leyva thanked the Board for the opportunity to comment on this standard, and she urged the Board to adopt the standard today so all workers that are exposed to this chemical will be protected.

Dr. Frisch stated that one of the concerns he has seen raised in some of the written comments has been the issue of product substitution, specifically that if diacetyl is regulated to a low level, the employer may choose to use a different product for which there is no data available. He asked whether the proposed regulations or the modifications suggested by the UFCW will exacerbate that problem, help that problem, or have no effect. Ms. Leyva responded that the UFCW hopes that the modifications would rectify the problem, and there are butter flavorings that do not contain diacetyl at all, and those would be flavorings that the manufacturers could use so they would continue to be able to make the products without harm to the workers.

Dr. Frisch stated that that is unknown, which is the trouble. A lot of those alternate products have no toxicologic data. Ms. Leyva responded that UFCW has data that supports that. She does not have that data with her, but her information is that there is butter flavoring that is not harmful. It is butter flavoring that was used prior to diacetyl coming on the market.

Dr. Frisch stated that he would be interested in further discussion this morning as the commenters go on about this issue.

Chairman MacLeod clarified that the Board is not adopting the standard today but simply receiving public comments. The Board is required by law to respond to comments, and the proposed standard will be brought before the Board at a future meeting, at which time the Board will vote to adopt the standard.

**Jeremy Smith of the California Labor Federation** stated, in response to Dr. Frisch's concern, that one good substitute for diacetyl would be real butter. He expressed appreciation for the work done by the Division, Board staff, the California Department of Public Health (CDPH), NIOSH, the regulated community, and the worker community. The FISHEP program was a good first step in protecting workers and getting an idea of how deeply diacetyl permeates this industry. He stated that the California Labor Federation (the Federation) has concerns with the proposed language.

One of those concerns is the one percent concentration by weight requirement that needs to be met before the regulation will go into effect. For all the good stuff in the proposal that the Federation likes that helps workers, this is one of the things that has to be met. This is a de facto permissible exposure limit (PEL), and one of the facts that came out of all the meetings between the regulated community, the worker community, and the Division is that the amount of diacetyl that makes a person sick is unknown, and that is really scary. This is not a chemical for which a PEL can be established, because the level of diacetyl necessary to make a person sick is unknown. The one-percent concentration was proposed by the regulated community at an advisory committee meeting, but there was no back-up data presented to support that concentration.

The second concern is the issue of diacetyl substitutes. To Mr. Welsh's credit, he has stated from the beginning of this process that the manufacturers are going to use other chemicals that may or may not be safe, and those chemicals will not be covered by this standard. He stated that after the petition and as the Division started the process of developing a rulemaking proposal, and as people started getting sick from inhaling diacetyl, the microwave popcorn industry began labeling their bags as diacetyl free. The Federation and the UFCW pushed them to make that

change and they did change because there are other chemicals that can be used to deliver the buttery taste. The Federation hopes that those chemicals are not as insidious as diacetyl, and Mr. Smith hopes that NIOSH and the people at the Federal OSHA level are performing studies to determine that.

The third concern is the fixed obstructive lung disease language that is in the proposal. It is another requirement that must be met before the good parts of the regulation that would protect other workers in a work environment can go into place. The doctors and scientists do not know if "fixed obstructive lung disease" actually exists in the medical literature. The main problem is that workers exposed to diacetyl could have full or partially reversible obstructive lung disorders, which means that a person could be exposed to diacetyl, begin showing abnormalities or obstructions in their lungs, and this regulation would not monitor that person or medically remove that person from their job at that point. When a person gets to the fixed obstructive lung disease stage, the next step is a lung transplant, which is too late. The regulation must go into effect before the worker reaches that point.

Mr. Smith closed by stating that there are some good things in the proposal about which the Federation is pleased. Medical removal, medical surveillance, full measure sampling, training, and the need for regulated areas are all positive additions to the proposal, and they are additions that should be part of any chemical regulation. Workers need to be able to take time off and have their jobs protected; they need to be moved to other parts of the factory so they can get away from what is making them sick. They need to not be afraid to speak up and say that they are not feeling well and not be afraid of losing their job or being treated badly by their employers because they are speaking up. He expressed the hope that this proposal would come before the Board for a vote sooner rather than later.

**Dr. Barbara Materna of the Occupational Health Branch of the CDPH** spoke in support of the proposal, stating that CDPH has been working directly with the Division since the first case of bronchiolitis obliterans was identified in California in a flavor manufacturing workplace, and they have been directly involved in the FISHEP program to try to further investigate this situation in the food manufacturing and flavoring industry and to prevent further disease among these workers. CDPH's role in FISHEP was to collect copies of the respiratory health questionnaires and the occupational tests from company medical providers, review them, and provide overall analysis. The CDPH also developed the diacetyl health alert and the written guidance for providers on how to conduct medical surveillance, both of which are referenced in the proposed standard.

Through providing medical oversight of FISHEP, CDPH has identified seven additional workers with moderate to very severe fixed obstructive lung disease diagnosed by their physicians as being occupationally related to their flavoring exposure. This brings the total number of physician diagnosed cases to nine. CDPH recently learned that one of these workers has received a lung transplant, which provides one indication of the severity of this disease. There are additional workers that have had abnormal screening tests, although the specific numbers are not currently available. It has been difficult to acquire all of the pertinent medical records from the workers, so CDPH has been reluctant to make any sweeping judgments based on lack of information. From the medical data that CDPH has collected, in collaboration with NIOSH, they

have performed an epidemiological analysis, and their findings corroborate the evidence in support for the need for regulating diacetyl.

The proposed standard includes a comprehensive set of control measures and preventive measures that the CDPH fully supports. This kind of approach is necessary, and all of the measures are warranted, particularly since we lack the current information on which to base a permissible exposure limit. The proposed standard also requires that flavor manufacturers who make flavors with .1 percent or more of diacetyl identify this information on their Material Safety Data Sheets (MSDS), and this is particularly important for downstream users to be alerted to this hazard.

Although CDPH supports the proposed standard, they have some specific suggestions for strengthening it. As has already been mentioned, diacetyl substitutes are of great concern. CDPH is very concerned that the flavoring industry and the food production industry have had several years now to phase out their use of diacetyl and replace it with other chemicals such as 2, 3-pentanedione, diacetyl trimer, and starter distillate, and there is concern that these chemicals are similar in chemical structure and may cause similar health risks despite the current lack of toxicity testing. There is some emerging new testing data on 2, 3-pentanedione, which has been discussed in a recent NIOSH-HHA report that was just released.

CDPH is very concerned about worker exposure to these substitutes in flavor manufacturing where the workers handle these chemicals in pure form as they do diacetyl, thus risking the highest exposures. It is very important, therefore, that the flavor manufacturing industry continue to be covered. If a company were to phase out their diacetyl use, currently they would not be required to do any of the things in the proposed standard, including medical surveillance. Thus, there would be no way to build knowledge about the affected workers that may be handling these substitutes.

Although the CDPH supports moving forward with the adoption of a diacetyl standard, they urge Cal-OSHA to consider ways of addressing potential risks from these substitutes. Cal-OSHA could consider requiring employers to warn their employees when they are using diacetyl substitutes and to tell them that they may pose similar risks to respiratory health, label these substitutes as such, identify their presence in MSDS's, and use similar worker protection measures. In addition, the respiratory health questionnaires in Appendices B1 and B2 and the diacetyl use questionnaire in Appendix D could be expanded to collect information on these related chemicals.

Another concern, which has been addressed by previous speakers, is the fact that the standard has case-based triggers that pertain to the scope and application of the standard as well as reporting of cases to Cal-OSHA that are based on the term "fixed obstructive lung disease." As those others have already mentioned, there is now some indication that reversible obstruction has been seen in some workers exposed to flavorings, and it is unknown whether this is a precursor to fixed obstruction or if it is an additional condition. CDPH would recommend that if the standard is going to retain a case-based trigger, the standard should be modified to indicate "obstructive lung disease that is likely caused by diacetyl or other flavorings," as a broader trigger. CDPH also suggests that cases meeting this definition be reported not only to Cal-OSHA but to CDPH so they can work together to address their emergence.

The final standard should reference the updated 2007 version of the CDPH medical guidelines for surveillance. CDPH is also making recommendations for improving the requirements for the physician overseeing the medical surveillance program and the spirometry technicians that are conducting the surveillance. There have been some issues with spirometry quality in the data collected in the FISHEP program, including indications that all of the physicians involved do not necessarily understand how to use serial spirometry properly to detect early changes among patients.

In the proposal as written there is an exception for the FISHEP companies not to have to complete the diacetyl use questionnaire, and the CDPH feels that the information from those companies is outdated and that exception should be removed.

**Gail Bateson, Executive Director of WorkSafe**, stated that WorkSafe has talked to many different experts around the country, including many physicians who are board certified in occupational medicine, and they have indicated that the language “fixed obstructive lung disease” does not reflect the best scientific evidence. The standard should simply reference obstructive or restrictive lung disease. Fixed obstructive lung disease is the end stage of the disease process and ignores what happens early on, when it is more likely that the disease is reversible obstructive lung disease like asthma, and as the disease progresses, it changes to a fixed disease and eventually bronchiolitis obliterans. Early on, when it is reversible, it can still be treated with medications. To the best of Ms. Bateson’s understanding, it is not completely reversible, but like asthma, there are controller medications. She suggested that the standard should be triggered before the worker develops permanent lung damage.

For example, Irma Ortiz worked in a Los Angeles area plant where she was exposed to diacetyl, and she experienced coughing and signs of obstructive lung disease early on with various symptoms. She continued to be exposed to diacetyl at work over a couple of months and eventually did develop bronchiolitis obliterans. At that point she had lost over 70% of her lung function and is now permanently disabled and waits on the list for a lung transplant.

The medical surveillance section, subsection (g)(3), illustrates the fatal flaw in the medical surveillance section dealing with conditional medical evaluation, which currently requires that the initial medical evaluation be provided “no later than the 30<sup>th</sup> day the employee works in the area.” Ms. Ortiz, according to published reports, complained of constant eye irritation in less than a month on the job. She went to the company doctor, who dismissed this, telling her that she was sensitive to light. She then developed a persistent cough, and she ended up going to a number of doctors until she reached the fourth doctor, who actually asked her about the chemicals with which she worked and was able to refer her to a specialist. Thus, if somebody in Ms. Ortiz’s situation was covered by this 30-day period, she would have already showed the symptoms of diacetyl exposure and there would have been no true baseline to test what her health status was prior to being diagnosed with fixed obstructive lung disease.

Ms. Bateson urged the Board to move forward on the standard while incorporating the proposed modifications.

**John Halligan with the Flavor and Extract Manufacturers Association (FEMA)** stated that FEMA has been fully engaged with the Division since they received the first phone call in December 2005, and he congratulated Mr. Welsh, the Division staff, and Dr. Materna and her colleagues at the CDPH for an excellent job in addressing a very difficult issue faced by all flavor and extract manufacturers in terms of a high degree of uncertainty as to what is really happening with diacetyl.

FEMA has participated in all of the advisory committee meetings and was heavily participatory in terms of providing information to the Division. They have actively shared information regarding flavors, including substitutes for diacetyl, and their message is simple: FEMA supports the adoption of the proposed standard. This is an excellent opportunity to move forward on this issue in the face of significant uncertainty. Because FEMA has been so heavily participatory in the rulemaking process, they are confident that the proposed standard, if adopted, will continue to help flavor manufacturers in California have the safest workplaces possible. If there is going to be any subsequent activity on the proposed standard in terms of modification or revision, FEMA would like to participate in those activities as well. FEMA would like to see the proposed standard adopted as soon as possible.

Dr. Frisch asked Mr. Halligan to shed more light on how product substitutions should be approached. He stated that FEMA represents manufacturers that produce a wide variety of different chemicals that are used in food manufacturing to create flavors. Many of those products, while generally recognized as safe for the purpose of food, have unknown properties from an occupational point of view. For example, when the diacetyl issue came to light, very little was known about the properties of diacetyl in aerosol form. Manufacturers, naturally, are looking for alternatives that will get them out of regulations that necessitate a lot of additional work. Those other products, as has been pointed out by CDPH, may be as hazardous, more hazardous, or less hazardous than diacetyl itself, and in many cases it is uncertain whether the risk is actually known. Clearly, there are issues of economics, rancidity (in the case of pure butter), and other factors that have to be considered in determining which products to select. He asked how the regulation should be crafted in a manner that is protective of workers in this industry and that assures that a product substitution as a result of the imposition of the proposed regulation does not create a more hazardous environment.

Mr. Halligan responded that everyone involved is dealing with a significant degree of uncertainty. There are two substances that are primarily of interest right now in terms of substituting for diacetyl; they are 2,3-pentanedione and acetoin. FEMA does not consider starter distillate as a substitute because it essentially is diacetyl in natural form, and diacetyl trimer is simply diacetyl in a slightly modified form. There are other substances that have a similar structure to 2,3-pentanedione and acetoin, but they do not impart the butter flavor of diacetyl, and therefore, FEMA wants to watch them for other reasons. In the context of butter flavor, however, the two substitutes are 2,3-pentanedione and acetoin.

This is a very important workplace safety issue, and in August 2004, FEMA issued a report in which they identified approximately 90 flavoring substances as high priority or low priority, and FEMA understands that workplace safety must be addressed in a more holistic manner rather than focusing on any one substance. However, on this particular issue, coming out of the microwave popcorn industry, FEMA has looked at all of the scientific data on all of the

substances with an aim towards looking at the workplace exposure issue, and they keep coming back to diacetyl because of some particularly unique structural characteristics that lend themselves to a greater biological reactivity. Thus, there is a limited data set in terms of the animal studies and a very limited animal model given that rats and mice are not appropriate models for humans, which has been a vexing scientific issue.

FEMA supports the proposed regulation, thinks that it is an excellent place to start, and wants to continue working with the Division, Federal OSHA, and others. He emphasized that the most knowledgeable physician about this illness is Dr. Cecile Rose of the National Jewish Medical and Research Center. She has worked with the Division and the flavor industry for many years, and she states, "In the face of significant uncertainty, what do you do?" Since August 2004, when FEMA issued its report, and during its three training workshops, they have emphasized that flavor manufacturers need to take the approach embodied in the proposed regulation: exposure control, medical surveillance, and hazard communication.

Dr. Frisch asked whether Mr. Halligan would agree that it is likely that as information is gathered on the alternatives, the proposed regulation might potentially be modified to incorporate other chemicals that are used in the same processes. Mr. Halligan responded that that could be a possibility. The NTP includes diacetyl, acetoin, and acetyl propanone 2,3-pentanedione. These chemicals are all under study, and FEMA has shared information with NIOSH and others. He stated that we need to keep an open mind as further research is performed, and if it is necessary to modify the standard, FEMA wants to work with the Board staff and Division staff on those modifications.

Dr. Frisch asked whether there is a reason to believe that butter flavoring, as opposed to other flavoring, is special. Mr. Halligan responded that, as was discussed in great detail in the advisory committee meetings, butter flavor for microwave popcorn was a very unusual flavor formulation. Many of the flavor formulations contained much higher levels of a single chemical, in this case diacetyl, that is found in the flavoring industry in other types of flavors such as berry flavors and fruit flavors that typically have very low levels of any particular, individual chemical. Because of the nature of the microwave popcorn manufacturing process and the characteristics of actually popping the product or preparing it in the home, at the time it was felt that it was necessary to have a significantly higher amount of diacetyl than is typically in any other kind of flavor, sometimes up to 10%, sometimes more. As was discussed in the advisory committee meetings, that is extremely unusual in flavor manufacture. The use of heat processing in the manufacture of microwave popcorn itself, in the microwave popcorn manufacturing facility, and the intense heat of a microwave oven results in significant volatilization (?) and loss of the diacetyl, which is dispersed into the air.

Dr. Frisch expressed appreciation of FEMA for their engagement on this issue. Mr. Halligan's candor in this and the advisory committee process has been greatly appreciated by the Division and the Board. Mr. Halligan responded by thanking the Board and Division staff because under the leadership of Mr. Welsh, this has been a model for how an industry and regulators can work together to accomplish a very positive result.

**Julianne Broyles, representing the Grocery Manufacturers Association (GMA), the American Bakers Association (ABA), the California Chamber of Commerce (Cal**

**Chamber), the California League of Food Processors (CLFP), the California Manufacturers and Technology Association (CMTA), the Dairy Institute of California (the Institute), and the International Dairy Foods Association (IDFA) (collectively referred to as Ms. Broyles),** stated that GMA has been a very strong proponent of the proposed standard and participated in the advisory committee process, providing a lot of information to the Division. In fact, they have also made the effort to bring the best scientific experts that they could find to make a presentation to the Board in January 2009 on the issue of diacetyl and the ability to create an occupational exposure level (OEL), to be followed by a permissible exposure level (PEL) at some point in the future.

It has been a very constructive and positive experience, and Mr. Welsh has done a terrific job of bringing people together. There are some concerns about the proposed regulation, however. From the beginning Ms. Broyles has always believed that the scope and application should be limited to the food flavoring industry. As confirmed by Dr. Materna in her comments, the cases of pulmonary obstructive lung disease are found in the food flavoring industry workers. There were seven cases initially; two have been added, but they all have been within the food flavoring industry. No cases have been found in the food products industry, and that is an important distinction for the Board to note. It is one that is of concern to Ms. Broyles because in a time of great economic issues, a regulation should not be imposed on an industry that does not have a problem in the first place.

Ms. Broyles also believes that a lot of information has been gathered over the last three-and-a-half to four years since this issue really started to come to the public's attention. Just recently, two major studies were published: the Lockey and Hilbert report on airway obstruction related to diacetyl exposure at microwave popcorn plants that was published in the European Respiratory Journal and the Morgan and Flake respiratory toxicity of diacetyl in mice that was also released recently. These two reports provide a lot more definition to what is happening on the diacetyl front. The science exists, and the information from those reports was then used by Toxicology Excellence for Risk Assessment (TERA) in its assessment of diacetyl studies. The effect of diacetyl on the lung and the relationship between the exposure level and the adverse affects are something that needs to be questioned. There are epidemiological studies and other risk exposure assessments that have been performed only in the last 12 to 18 months that have been published and forwarded to the Board staff and the Division staff to examine in the development of the proposed regulation. There have been problems with prior studies, including the NIOSH study that had issues with the humidity and its effect on their testing levels. That study has been recalled and is being reevaluated. The most recent studies are those performed by the NTP and others, which present cutting edge information that the Board should take under consideration as it moves forward on a diacetyl regulation.

The most recent reports must be taken into consideration in further developing the regulation. Based on all of the information coming to light, a PEL for diacetyl is possible. TERA determined, based on the recently published reports, a PEL to prevent tracheal bronchial inflammation could be developed. According to TERA, the data from the studies identified the same critical affect, the tracheal bronchial inflammation, converged on a likely occupational exposure range in which they would have high confidence. They did stress that it is an eight hour time weighted average (TWA) of .2 parts per million (ppm), and they used a well-recognized benchmark test methodology method in order to reach that recommendation.

Given the very big diversity of diacetyl use in the food products industry, diacetyl-related disease has been identified only in the Midwest popcorn manufacturing facilities where they were using exceedingly high levels of diacetyl in their continuous production process. They were using it in an open process in which the diacetyl was being added to hot oil, which vaporized the diacetyl into the air surrounding the worker. Food manufacturing is a very different process, in that they are mostly enclosed processes that is part of the process that is used in best practices in food manufacturing according to national standards. There is no open addition in the food manufacturing process. In fact, the diacetyl used in the processes in the food manufacturing plants is not used on a continuous basis the way popcorn plants were; they are intermittent, and not every product they produce contains diacetyl. If diacetyl is included, it is in very small amounts in relationship to the overall volume, usually much less than 1%. There are distinct differences between the food flavorings industry and the food producing industries in California. Food manufacturers are not using diacetyl at high rates, they are not using open processes where workers are exposed to diacetyl, and there has been no indication that workers in the food manufacturing industries are being afflicted with bronchiolitis obliterans.

Ms. Broyles then summarized the recommendations included in her written comments previously submitted to the Board. She stated that the Division should develop an OEL, using the reports that were issued in 2009 and the results of the NTP studies. If it is not feasible to wait for the results of these studies in the establishment of an OEL, an interim rule should be put into place that would expire once an OEL and a PEL have been set for diacetyl in the workplace. If it is not feasible in that way to limit sectors covered by an interim rule to test the food flavoring industries, the Division should ensure that diacetyl is being used in the workplace. Finally, any interim rule should specify that once a PEL is established, compliance with the PEL, with which all companies in California that use regulated substances are familiar, rather than the large standalone and descriptive standard being proposed, should equal compliance with coverage and meeting the regulatory standard as proposed in Section 5197.

Ms. Broyles closed by stating that all of the studies referenced in her written and oral comments had been provided to both the Division and the California Labor Federation. She stated that in 25 years of working on occupational safety and health regulations, she has never seen such a prescriptive standard. Anytime there is a step-by-step prescriptive process, reasonable and useful health and safety control measures that can be used are limited, and there is a greater danger that members of the regulated community might inadvertently violate a provision of the regulation. When there is a proactive standard that sets out the limits of the box in which the employer may operate and provides flexibility to address issues that a particular group of companies or a workplace culture might require, the result is better responses and better health and safety control.

Dr. Frisch expressed agreement with Ms. Broyles concern about the comprehensive nature of the standard, stating that the Board runs the risk of hamstringing epidemiologists, industrial hygienists, and employers from doing what makes the most sense or something that makes more sense by embedding the detail contained in the proposal.

Mr. Kastorff stated that Ms. Broyles had recommended that the restrictions in the regulations apply only to flavor manufacturers because in most cases they are working with very high

concentrations of diacetyl. For a flavoring in a food, the concentrations are going to be far less, hence the occupational exposure would be far less, and he expressed uncertainty that there would be an exposure exceeding the recommended 0.2 ppm. Ms. Broyles responded that the regulations that would capture food manufacturers under the proposed standard is that, there is a requirement to control the exposure to the lowest detectable level feasible, and that is far below the engineering controls that would have to be implemented. There is a reporting requirement in the appendices that would require employers to report on usages down to 1% or greater, but the MSDS's that the employers are required to keep and on which to train their employees indicate a concentration of 0.1% of diacetyl, which would include many more businesses than a higher concentration would include.

Mr. Prescott asked which portion of the food processing industry, which Ms. Broyles asserted should not be covered under the proposed regulation, uses more than the 1% concentrate by weight required in the proposal. Ms. Broyles responded that there are very few food processors that use a higher level than that specified in the proposal, and at this time there is no manufacturer in California that is using high percentages of added diacetyl. There is naturally occurring diacetyl that occurs in products such as cream or butter that is above the 1%. Those manufacturers would be pulled into the requirements of the regulation even though it is naturally occurring diacetyl, which is not exempted in the proposed standard.

Mr. Prescott asked Mr. Welsh if the naturally occurring diacetyl would be covered under the proposed regulation, stating that that is not his understanding. Mr. Welsh responded that although the Division had originally talked about covering both natural and artificial diacetyl, once they settled on a 1% concentration, that issue became moot because the actual concentration of diacetyl in dairy products is much lower than 1%. Ms. Broyles responded that, to the best of her knowledge, ice cream and cream may contain higher concentrations of diacetyl. Mr. Welsh asked her to provide that information, and she agreed.

Mr. Prescott stated that it had been his impression from reading the documentation that the overwhelming majority, if not all, of the food processing in California would not be covered under the proposed standard because of the 1% requirement. Mr. Welsh responded that in the two years it has taken to develop this standard, the percentage of companies not working with diacetyl above 1% has really increased.

**Fran Schreiber, speaking on behalf of a labor coalition consisting of WorkSafe, California Labor Federation, and others,** expressed disagreement with Ms. Broyles presentation regarding the approach taken in the proposed regulation. Ms. Schreiber has had over 25 years' experience with setting PELs, and one of the significant things about the proposed regulation is that this is moving in the direction of what can be called a task-based approach, particularly if there is the ability to eliminate the 1% trigger. That trigger is inappropriate because there is no scientific basis for it. A task-based approach would be similar to the regulations for lead, silica, and a number of other chemicals, and that approach works quite well. The labor coalition also disagrees that the proposed regulation should be more of a performance-based regulation. The kind of problem presented by this particular chemical requires the kind of specific, restrictive direction in the proposed regulation. The Division and the CDPH have done a really good job of pulling together the most necessary things; the proposal contains prescriptive provisions where

they are needed, and other things have been left open, including specific work practices such as goggles, coveralls, and gloves.

In addition, when a PEL is determined that triggers the requirements in a regulation, it is tied to one of the weakest set of regulations in Title 8 in terms of requiring when monitoring is required and when the Division can cite an employer for violation. Setting a PEL is a very ineffective way of approaching this type of regulation.

Ms. Schreiberberg stated that fixed obstructive lung disease is the trigger event for the regulation. Thus, an irreversible condition must exist before the regulation is triggered; therefore, at the very least, that provision should be modified to include obstructive or restrictive lung disease so that there is a possible way of addressing those illnesses before they become irreversible. In addition, the requirement that there must be no other cause than occupational exposure to diacetyl is unrealistic because no doctor is going to report that there is no other cause. The language should be modified to the effect that it is more likely than not caused by occupational exposure to diacetyl.

Although the diagnosis of obstructive lung disease triggers certain parts of the regulation, it does not trigger any of the medical surveillance requirements of the proposed regulation. She suggested that if a person has been diagnosed with obstructive lung disease, that person should be covered by the medical surveillance provisions. She also suggested that the definitions that are based on scientific documents should not contain a specific edition but rather should refer to the most recent edition of the document.

Ms. Schreiberberg suggested that if the regulation is modified to include diacetyl substitutes, it should also include diacetyl substitutes that might be introduced in the future and that the information regarding diacetyl substitutes should be added to the subsections regarding additional training. She suggested that the baseline should be established after an employee has been hired, but before he or she begins work rather than before being hired and that medical evaluations should be repeated at three-month intervals instead of six-month intervals. The labor coalition is concerned about discrimination on a pre-employment basis. She expressed concern regarding the provision that should a worker decide to get a second opinion, it must be reported to the employer. It is an unnecessary requirement that could expose that employee to discrimination. She recommended eliminating the exemption from the record-keeping requirement for employers that have been part of the FISHEP program.

**Azita Mashayekhi of the International Brotherhood of Teamsters (Teamsters)**, stated that the Teamsters have actively participated in the advisory committee meetings, and they have worked closely with both the Division and CDPH in developing the proposed regulations. She thanked Mr. Welsh and CDPH for the work that has been performed and their efforts to include all interested stakeholders. Ms. Mashayekhi stated that stakeholders and the Board should err on the side of caution, because bronchiolitis obliterans is irreversible, it can occur very quickly, and it can be due to prolonged exposure or low exposure over a period of time or peak exposures depending upon the process and the form of diacetyl used. There are a lot of factors at work, and it is very difficult to control all of those factors unless regulators and employers err on the side of caution and set the lowest possible limits and concentrations to counter the existing variations.

Because there is no cure for bronchiolitis obliterans, we are morally obligated to do the best we can.

Ms. Mashayekhi then went on to summarize the Teamsters' written comments, stating that since we do not know what level of diacetyl exposure is safe, and we do not know what a 1% air concentration of diacetyl might produce, it is hard to support an arbitrary percentage concentration of 1%. NIOSH issued a Health Hazard Evaluation report on their visit to the Hansen Berry flavoring company in 2009, which stated that because diacetyl-related lung disease can occur after several months of exposure and can rapidly progress to severe, irreversible disease, uncontrolled exposure should be minimized to the greatest extent feasible. The Teamsters are very concerned that keeping the trigger at 1% or below is going to keep 90% of the food manufacturers in California out of the proposed standard. This number actually is increasing because there has been a switch to substitutes for diacetyl, which are structurally similar to diacetyl and are expected to have toxicology effects that are as bad as or worse than those of diacetyl. Thus, the inclusion of diacetyl substitutes should be added to the monitoring provisions in the proposed standards.

In addition, fixed obstructive lung disease is not an acceptable trigger, because it is irreversible. The proposed standard should be modified to include restrictive and obstructive lung disease. NIOSH has received reports of restrictive lung disease in people who work with flavorings. At General Mills, the prevalence of a restrictive pattern of spirometry was significantly higher than the prevalence rate for the adult population of the United States. While a restrictive pattern has been seen with a number of conditions, it may indicate the presence of lung disease. Further evaluation by a physician would be necessary to determine if patients with a restrictive pattern of spirometry have lung disease. A more inclusive trigger would allow employers to capture cases of lung disease before it has progressed to a point where it is irreversible.

In a study of a flavor manufacturing plant in Indianapolis, of 88 current and former workers who underwent spirometry testing, 33% had obstructive, restrictive, or missed patterns of abnormal spirometry while 32% of those evaluated over time had an extensive decline in (inaudible). In all, 47% of 88 workers had abnormal recent spirometry. Permanent, irreversible, fixed obstructive lung disease should be an ending point for medical surveillance, not a starting point.

Ms. Mashayekhi further stated that there other risks from diacetyl use than lung disease; there are also cases of skin and eye irritation associated with it. NIOSH has documented that many flavoring chemicals are highly irritating to the eyes and skin. Prevention of these symptoms should be included in the engineering controls through the use of gloves and goggles.

Mr. Washington asked whether eye and skin irritation were documented in the Indianapolis survey. Ms. Mashayekhi responded that they had been documented in the General Mills HHE, but she expressed uncertainty as to whether it was cited in the Indianapolis survey.

Mr. Washington then asked what protections were in force at the time that survey was taken. Ms. Mashayekhi responded that there were some engineering protections in place, but not enough for all exposed employees.

Mr. Kastorff asked whether diacetyl substitutes were in use at the General Mills plant and how long they had been in use at that plant at the time of the NIOSH HHE. Ms. Mashayekhi responded that substitutes had been in use for approximately a year.

Mr. Kastorff then asked if lung disease had been reported in connection with the use of diacetyl substitutes. Ms. Mashayekhi responded that the data were unclear as to whether the reported lung disease was related to diacetyl or substitutes. Mr. Welsh stated that the reason that NIOSH was performing a study of the substitutes is to determine whether the risk of lung disease from diacetyl substitutes is as great as it is with diacetyl. He stated that one reason for the proposed standard is that employers in the food industry currently are not required to perform pulmonary function testing, although some may do so on their own. Because of this lack of pulmonary function testing, the risk of lung disease from diacetyl substitutes is unknown. The NIOSH HHE of the General Mills plant in Los Angeles found some evidence of compromised lung function, although it was not fixed obstructive lung disease. He stated that he had asked NIOSH to provide some guidance on this issue, and he asked that the Board keep the record open for comments until NIOSH could provide that information.

Chair MacLeod recessed the hearing for a ten-minute break at 12:05 p.m. and reconvened at 12:15 p.m.

**Dr. Leslie Israel, an Associate Professor of Specialty Certification in Occupational Medicine and a lead physician at the University of California Irvine for Occupational and Environmental Health**, stated that UC Irvine's occupational and environmental practice has provided oversight, medical surveillance, and outreach to companies who make flavorings, and she and her practice have worked very closely with the Division, NIOSH, and CDPH. She also testified at the Assembly Committee on Labor Employment Informational Hearing on Diacetyl on March 28, 2007, and she stated that she would be happy to provide that testimony for the Board, if they wanted it. NIOSH performed medical surveillance for a company in Southern California in which it found that there was an abnormally low spirometry reading. NIOSH was referred the person to Dr. Israel, who found that he had bronchiolitis obliterans, which fortunately, is mild and asymptomatic.

Dr. Frisch asked Dr. Israel to describe how a physician determines whether reversible obstructive lung disease is diacetyl-related. Dr. Israel responded that it has to do with obtaining a person's history. Residents are trained to take these complete medical histories, which the general internist or pulmonologist often does not have the time to do. It is the responsibility of an occupational medicine trained physician. In the case she cited, she worked closely with Kelly Howard in monitoring the patient's exposures. The industrial hygienist and the safety people act and serve as the eyes of the physician, and it takes skill to determine the most likely exposure contributing to the lung disease.

Dr. Frisch asked whether Dr. Israel believes there would be a large number of cases that would be falsely identified as diacetyl-related if the standard were relaxed to include reversible lung disease. She responded that the physician is responsible for delving into the patient's history, and she expressed the opinion that it would be very interesting to look at the data, but to the best of her knowledge, she does not think that the cases that have been identified are false positive cases.

Mr. Kastorff expressed confusion regarding Dr. Israel's patient who was diagnosed with mild, asymptomatic fixed obstructive lung disease. He stated that because this is a disease that is defined by its symptoms, he was unsure how the patient could have been diagnosed with bronchiolitis obliterans if he was asymptomatic. Dr. Israel responded that there are certain measures that are examined when spirometry is performed on a patient. One of these measures was low, and this raised a red flag to NIOSH. This particular measurement is consistent with an obstructive pattern, and thus NIOSH wanted him to be evaluated further. When he was evaluated, it was shown to be a fixed obstructive pattern. Further testing according to the FISHEP protocol showed that he had the radiographic findings on a high-resolution CT of bronchiolitis obliterans that was administered by a pulmonologist. To the best of her knowledge, this is the only case of an asymptomatic food flavoring worker, and she repeated her offer to provide the Board with the write-up of that case.

Mr. Welsh stated that there is a difference between science and symptoms. Symptoms are what a patient notices and reports to the doctor; they are the body's reaction to a challenge. Saying that the patient was asymptomatic simply means that he did not recognize that he had a problem, and it did not come up until he was tested and it was discovered that he did not have proper lung function.

Dr. Frisch stated that he had a lot of questions, and he needed some of them answered today but others needed to be answered in the Final Statement of Reasons. He also stated that some of them would be appropriate for Dr. Materna and some of them would be for staff.

He stated that there is a lot of detail in the proposed regulation that will require implementation by an industrial hygienist, and thus asked that staff look for opportunities either to use existing standards in industry or to not be quite as prescriptive, particularly when a protocol is almost identical to one described elsewhere. Mr. Welsh asked for an example, stating that the Division had used other standards as models. Dr. Frisch cited the detailed procedures that need to be followed by an industrial hygienist when performing the monitoring. If they are following standard practices as is normally expected, he feels it may be unnecessary to describe the procedures so exhaustively.

Dr. Materna stated that as an industrial hygienist, she would not feel hamstrung by any of the provisions in the proposed standard. As far as how to do proper sampling, there is an amazing prevalence of poor industrial hygiene reports. In this case, sampling is being used in an attempt to understand if there is something detectable, and it is even possible to design a sampling protocol to ensure that nothing detectable will be found. In addition, there has been a lot of differences in the methods, so it is really crucial so the testing be done consistently across companies.

Dr. Frisch cited the spirometry as an example, and given Dr. Materna's comment earlier related to the nature of the spirometry and how it is performed, he echoed her concern. He stated that the issue actually goes beyond this proposed regulation and it speaks to the larger issue because spirometry is not just done with respect to the proposed diacetyl standard, it is throughout the Title 8 standards. If in fact there is a need to be more specific, that may call for a different rulemaking that is more generic and applies to spirometry across the board.

A second observation by Dr. Frisch related to the proposed regulation is that it is incredibly verbose, and in some places, it is unnecessarily so. A little more attention to how things are ordered may be helpful to someone who is trying to implement it.

He stated that we should contemplate, if it comes to an employer's attention that a former employee has been diagnosed by a physician, that employee should perhaps come within the scope of the regulation. Dr. Frisch asked that item (2)(C) be modified to indicate that there must be an occupational exposure to diacetyl.

As to subsection (3)(B), Dr. Frisch asked whether actions were being inserted into a definition, stating that "shall do all of the following" should not be included in the scope and application portion of the regulation. Mr. Welsh stated that because that provision is an exceptional case, the Division wanted to make it clear what needs to be done to comply. He stated that staff would review the proposed standard and try to modify it.

Dr. Frisch stated that he was unsure whether it needs to be changed; he was merely pointing out that it was an area where he became uncomfortable because an employer who may be going straight to the back of the regulation to see what he needed to do might miss these requirements.

Dr. Frisch expressed confusion regarding the provision that if diacetyl is not in the workplace, but a worker is diagnosed with fixed obstructive lung disease attributed to diacetyl, certain actions on the part of the employer are required. Mr. Welsh responded that that was a fair point, and stated that the idea behind that provision is a workplace in which there is less than the 1% trigger amount in the food manufacturing industry. He stated that when the Division started writing this proposal, it tried to capture more than diacetyl and tried to include some high-priority substances identified by FEMA, but that concept was roundly rejected; so the Division focused on diacetyl. The thought was that in some concentration, diacetyl is prevalent just about everywhere in food manufacturing. Thus, if an employee is in food manufacturing, working with flavors, and is diagnosed with fixed obstructive lung disease, that is serious. If it is occupationally-related, the culprit may not be diacetyl, but something caused that lung disease, and food flavorings have been demonstrated to have an effect on the lungs.

Dr. Materna stated that the material safety data sheets that come with flavorings often do not say much of anything, and the 1% requirement of diacetyl being identified would also apply to flavors coming in from out of state.

Dr. Frisch asked whether the "diacetyl-related disease" referenced in subsection (b)(18) is a recognized condition. Mr. Welsh responded that they are trying to recognize it through regulation. Dr. Frisch stated that if that is the case, it needs to be defined, stating that the signs and symptoms described could be asthma.

Dr. Frisch asked whether the sampling procedures referenced in subsection (c)(1) vary from practices that are typically required for other substances and whether this provision is one to which industrial hygienists need to pay particular attention or whether it is normal practices that they have been doing anyway. Mr. Welsh stated that when sampling, industrial hygienists will often pick the average case or the most prevalent operation. In this case, the Division wants the

industrial hygienists to find the worst case. Dr. Materna added that they also wanted to ensure that the industrial hygienists take short-term exposure measurements.

Dr. Frisch then asked whether subsection (c)(3) includes closed processes. Mr. Welsh responded affirmatively, because things can deteriorate.

Dr. Frisch asked whether the “change in process, production, or control measure that may result in new or increased exposure” referenced in subsection(c)(4)(B) would apply to routine maintenance that would involve opening the closed process. Mr. Welsh responded that the intent was not to capture routine maintenance, but rather something in the sense of a major, significant modification.

Dr. Frisch asked how often closed processes are opened up for routine maintenance. Mr. Welsh responded that some of them can be opened every day. Dr. Frisch asked, for the sake of clarification, whether the closed processes in food manufacturing are similar to closed processes in refineries, where it could be closed for months. Mr. Welsh responded in the negative.

Dr. Frisch stated that in subsection (d)(3), an authorized person is not defined, pointing out that that term is used in areas of the regulations to refer to hold a person to certain standards of training and expertise. He stated that he understood what the Division’s intent was, but the term may need to be further defined for purposes of this regulation, or perhaps another phrase could be used instead.

Dr. Frisch then stated that subsection (d)(4) refers to subsection (K)(1), which in turn, refers to Section 3204. He asked why the regulation would not simply direct the employer to Section 3204.

Dr. Frisch stated that the phrases “as effectively as possible” and “where practicable” in subsections (e)(2)(A) and (B) and other places are ambiguous. Mr. Welsh responded that the purpose is to convey that employers are to make a reasonable effort, but the Division recognizes that they may not be able to do it completely.

Dr. Frisch asked whether the “lowest feasible level” referenced in subsection (e)(5) needs to be documented by the employer. Mr. Welsh responded affirmatively, stating that subsection (2)(b) states that if the program reviewer determines there are no visible emissions and that monitoring has not found detectable levels, the employer may consider that process to be closed.

Dr. Frisch stated that subsection (e)(5)(C) requires that an evaluation of the technology alternatives considered in achieving the lowest feasible level, but if an employer elects not to use technology that would achieve a lower exposure, there is no requirement for documentation of the decision-making process. Mr. Welsh responded that the employer is required to go as low as they feasibly can, and there must be documentation that there has been some fair consideration of what methods are available.

Dr. Frisch then stated that language needs to be incorporated into subsection (e)(5)(E) that holds the employer accountable for actually implementing the schedule, requiring documentation of the reason for changes in the schedule.

Dr. Frisch stated that subsection (f)(1)(C) confused him, asking why respirator use in adjacent areas be necessary on request. Mr. Welsh responded that if people are concerned that the regulated area might not be as exposure-tight as it is believed to be, it does not hurt to allow someone to have a respirator as a precaution, and that respirator should be fully in accordance with respirator usage principles.

Deborah Gold of the Division stated that part of the issue is that there are limitations to the industrial hygienist's ability to assess exposures; there is no way to measure powders except to determine whether there are visible emissions. This provision was meant to say that if an employee has a significant enough reason that they want to use a respirator, that employee should be fit-tested as well. They may already be in medical surveillance anyway, which is going to address the medical evaluation issue for respirator use, but if the employee feels that he needs to use a respirator, it should be a fit-tested respirator.

Mr. Prescott asked whether the medical evaluation going to be a substitute for the respirator evaluation or are those who are wearing respirators going to go through both of the evaluations. Mr. Welsh responded that the bottom line is that they need to have things done that are called for by the requirements, so if it is all done in one evaluation, that is acceptable.

Ms. Gold stated that right now, as the standard is structured, the full medical evaluation is not required until after the person has been working in the area for 30 days, but the respirator medical evaluation has to be provided before the person makes the first entry using a respirator.

Dr. Frisch directed attention to subsection (g)(1)(B), stating that there is a lot of language about providing interpretation. He stated that he has not seen this elsewhere in the regulations, present terminology would preclude an interpreter from being a family member or other acquaintance, so it would require the medical provider to provide the interpreter, and he expressed uncertainty as to whether this provision is necessary in the regulation or consistent with other Cal-OSHA regulations related to providing interpretation. It seems that it could be made a lot simpler by incorporating language that indicates provision for the medical exam to be conducted with the patient where someone is there to provide interpretation services. He stated that he would not like to preclude someone bringing a family member (or other alternatives) to act as a translator. Ms. Gold responded that this has to do with changes that have been made in California about medical translation in which people are not allowed to use children, for example, and other provisions that have been made over the course of the last several years. There is a lot going on in terms of medical confidentiality that the Division is trying to address with some of its new regulations such as the aerosol transmissible disease standard.

Dr. Frisch asked whether the Board could anticipate that they are going to be seeing interpretation language elsewhere in Cal-OSHA in the future. Mr. Welsh responded that there are two approaches that could be taken: we can either require that a translator be present and make sure that the employer comply with all applicable privacy laws, or we can tell them what is required so they do not have to go look it up.

Dr. Frisch asked that subsection (g)(1)(D) be modified to indicate a specific version of the CDPH guidelines to ensure consistency. He stated that (g)(1)(D) refers to the most recent version of the

CDPH guidelines whereas subsection (b)(2) refers to the August 2007 version specifically. Mr. Welsh checked with Ms. Gold to determine whether similar language had been used in the aerosol transmissible disease standard, and it had been. Dr. Frisch asked if the Office of Administrative Law (OAL) had approved that language, and Mr. Welsh responded affirmatively. Ms. Gold stated that OAL had accepted the language only to a certain extent.

Mr. Prescott expressed concerns about using the phrase “current guidelines,” particularly when it is something that is not a consensus standard. It takes any and all public opinion out of the equation and automatically updates the standard. Mr. Welsh stated that making reference to a specific version or edition of the guidelines requires rulemaking each time a new version is issued. In the case of this standard, it is not likely that the employers or anyone else is going to second guess a physician who is following currently accepted medical practice.

Dr. Materna stated that she needed to leave in order to catch a flight, and she asked whether Dr. Frisch had any questions specifically for her. Dr. Frisch stated that he would simply list his concerns so that they were part of the record as things that need to be resolved in the final standard, and he thanked Dr. Materna for her time.

Dr. Frisch stated that he had consulted with two attorneys on subsection (g)(2)(A), and they could not figure out the intent of that provision. He suggested that it needed to be clarified. He also stated that subsection (g)(3) also was confusing, stating that it seems that employees that are identified in (g)(2)(B) and (g)(2)(C) are excluded from an initial exam, which he did not completely understand, and then there is a statement in (g)(3) indicating any employee not previously provided an initial medical evaluation, which seems to be a reference back to (g)(2)(B).

He asked why subsection (g)(3)(B) permits alternative questionnaires instead of simply adhering to provisions (b)(1) and (b)(2). Mr. Welsh responded that they were trying not to hamstring the employer, should the employer have an acceptable questionnaire already in place. Dr. Frisch asked whether those alternative questionnaires are required to have the same specific content as the questionnaire included in the proposed standard. Mr. Welsh responded affirmatively.

Dr. Frisch stated that he did not understand where in the standard there is a mechanism for an employee to decline any of the exams. He stated that in some of the other regulations, there are ways for employees to decline a physical and sign a waiver so that the employer has a record of it, and he asked whether there was such a provision in this standard. Mr. Welsh responded affirmatively, stating that even if it is not stated specifically, an employee can always decline the physical examination.

Mr. Welsh stated that Kelly Howard, Senior Industrial Hygienist with the Consultation Unit of the Division, wanted to address Dr. Frisch’s concern about voluntary respirator use in adjacent areas.

Mr. Howard stated that the physical properties of diacetyl are that it has a very high (inaudible) so when it is being poured, it vaporizes extremely fast, it flashes. There are several occasions where they have noticed that the person pouring the diacetyl had lower exposures than people 10 to 15 feet away, depending on air currents in the room. One thing that is going to come out as

far as diacetyl use is sometimes containers are very large and so it is going to be very difficult to ventilate.

Dr. Frisch asked whether that would argue for expanding the restricted area. Mr. Howard responded that it is very difficult to assess exposures, so the voluntary respirator use provision was added as an additional precaution. Dr. Frisch stated that it is always difficult to assess exposures, but there must be some point where the exposure area ends. If an exposure area has been established, and employees outside that area are so concerned about exposure that they request a respirator, then the exposure area needs to be expanded to include that area.

Mr. Welsh stated that that is easier said than done, and Dr. Frisch responded that none of this is easy to do, but it behooves thinking about, since we are making special provisions for respirator use. Mr. Welsh stated that Division staff has done the best it could, emphasizing that Mr. Howard has put over two years' work into this standard, and that particular issue has eluded everyone who has worked on the standard. There is no airtight way to approach the exposure area.

Dr. Frisch stated that nothing he says or questions should be interpreted as criticism of the work the Division or any of the contributors has performed on this standard. The purpose behind these questions is to test how are we actually thinking about this to make certain we are doing what makes the most sense from the Board's point of view. He fully recognizes the amount of work everyone has contributed to this regulation, and he is very appreciative of it.

Mr. Welsh responded that he was not trying to say that Dr. Frisch was criticizing, but it is frustrating for the Division as well. Dr. Frisch responded that part of this is to get these concerns on the record how it was thought through and why it is the way it is and that is what he is trying to do.

Dr. Frisch then moved on to subsection (h). He stated that the PLHCP written opinion is mixed up with the respirator qualifications part in Section 5144. He expressed confusion as to whether there are additional requirements or whether they are the same. It gets very confusing to determine what is the respirator questionnaire, what is the respirator qualification, and what is special for diacetyl.

In subsection (j)(1)(A), Dr. Frisch stated that he did not understand why it would be necessary to train employees such as office workers, who may never set foot in the production area of the plant, the same way that employees that are in the plant are trained.

Dr. Frisch then addressed subsection (j)(2)(A), asking whether the translation requirement is similar to his earlier question regarding medical translation. Ms. Gold responded in the negative, stating that it is an expansion of the earlier provision. Dr. Frisch asked whether it is done elsewhere, and Mr. Welsh responded that they would look it up and respond in the FSOR.

Dr. Frisch asked why we are not allowing for telephonic reporting or email reporting in subsection (k)(2). Mr. Welsh responded that they would look into that as well.

Dr. Frisch stated that there is no explanation in subsection (k)(3) as to where the questionnaire actually is or how to comply with it. He stated that employers are required to fill out the online questionnaire, but there is no indication where it is. Mr. Welsh responded that they are developing that system now, stating that by the time the standard comes up for adoption, that change would not be substantive. Dr. Frisch suggested that the Division consider alternatives for people who choose not to do it on the internet.

Dr. Frisch asked whether this is a one-time questionnaire, to which Mr. Welsh responded affirmatively. Dr. Frisch then asked why the Division would not want employers to recomplete the questionnaire. It seems like something that the Division would want to come back to periodically in order to avoid having stale data. Mr. Welsh stated that the theory is that once an employer has reported to the Division, they have the ability to say which employer has the most important uses for some health reason. The Division would contact those employers and bring their records up to date as their contacts indicate it being warranted.

Dr. Frisch expressed considerable reservations about modifying MSDS requirements, as in subsection (l). He asked Mr. Welsh to provide examples of where California has deviated from the federal standard on MSDS's. Mr. Welsh responded that Prop. 65 has special requirements for chemicals requiring MSDS's, stating that he acknowledges the problem, and the problem is that we can describe MSDS requirements and we can hold manufacturers in California to them, but it is difficult to enforce that against national manufacturers. Dr. Frisch asked whether this subsection would require the employer to rewrite the MSDS because the manufacturer-provided document is inadequate in California. Mr. Welsh responded in the negative, stating that the requirement was limited to the manufacturers.

Mr. Jackson stated that he had a similar question regarding labeling because labeling comes from the HazCom standard, and if an employer is purchasing the product from an out-of-state manufacturer, the provision appears to require employers to relabel the product outside of the HazCom standard, which directs employers to go to the manufacturer to get the appropriate label. Mr. Welsh responded that they would look into that issue to determine whether there is conflict between the HazCom standard and the labeling and MSDS requirements in the proposed standard and the expectations placed on the employer.

Mr. Jackson asked, if the MSDS or label provided by the original manufacturer is inadequate, what is the employer's obligation to reinvent them. Mr. Welsh responded that the state HazCom standard is the one that applies.

Dr. Frisch expressed discomfort with deviating from the federal standards for MSDS's and labeling and he would like to ensure that this has been thoroughly examined. He then stated that in the interest of time, he would move on.

Chair MacLeod stated that it is more important to get the questions on the record than it is to get the answers.

Dr. Frisch stated that in Appendix A in subsection (b)(2)(H), there is a typo: the word should be "shall," not "small."

Dr. Frisch stated that Appendices B1 and B2 need to be more accurate about what the employee needs to do in terms of completing the form, instead of using the term “we would like.”

He asked whether there was a medical purpose in collecting information on race and ethnicity in the questionnaire. Mr. Welsh responded affirmatively. Dr. Frisch requested that that reason be included in the FSOR. Mr. Welsh stated that, for example, spirometry results sometimes vary.

Dr. Frisch stated, regarding Appendix C, that this language is locked into the regulation and presumes that HESIS does not intend to update or change the fact sheets. It would require a regulatory change by the Standards Board in order to change the fact sheets. He asked that the Division ensure that this is the intent of including these fact sheets in the regulation. He stated that there is information in those fact sheets about seeing a physician immediately, and he expressed concern as to whether these fact sheets were plucked verbatim from another purpose and dropped into the regulation where some of the language may not be appropriate for the employees (inaudible).

Mr. Kastorff stated that the area of Appendix C that describes how one might be exposed to diacetyl should also address the fact that it is a food flavoring, and we eat it. The direction to make sure that substitutes are safe is appropriate for the employer, not for the employee.

Dr. Frisch stated that there is also a section regarding respirator use that is inconsistent with the regulatory language.

Mr. Washington stated that as diacetyl has not been tested for cancer or reproductive effects, that section should be removed from Appendix C.

Dr. Frisch stated that Appendix D now references using an online form, and one of the things he would like addressed in the FSOR is what protects that online form from being changed absent a change in the regulation, because including it in the regulation specifically embeds it into the regulation and any modification of the online form would have to be approved through a regulatory change. He wanted to understand what mechanisms have been put into place within the database management system and the internet management system to prevent changes being made to the online form. Mr. Welsh responded that with a one-time response, that is not a problem.

Dr. Frisch concluded by thanking the Division and all of the participants that have been involved in the development of this regulation. He knows how complicated it is and how mind-boggling some of this information becomes to think about, and he expressed the opinion that we are on the way to another ground-breaking regulation.

Mr. Washington stated that when he read the regulation, he was struck by the fact that it appears that the Division was nullifying Workers' Compensation. He stated that his understanding of the law is that when it comes to an injury or an illness that precludes an employee from working, it now becomes subject to the Workers' Compensation code. This regulation seems to be not only redundant but also some overlay of an additional potential cost to the employer because some of the restrictions take away the employer's ability to manage their workforce in terms of cost between workers compensation and health and safety costs. In requiring medical care for that

employee, it removes the employer's ability to manage that. He asked whether this illness would be covered under a workers' compensation claim. Mr. Welsh responded that in most of these cases, if the worker becomes permanently disabled, that will be a workers' compensation case, and they may have temporary disability as well under workers' compensation.

Mr. Washington expressed concern regarding subsection (i)(2), which states that an employer must continue to provide medical removal protection benefits if a workers' compensation claim is filed, stating that filing a worker's compensation claim is not an option for the employer. As soon as that employer becomes aware that there is an injury or an illness, that employer is obligated to give the employee a worker's compensation claim form. He stated that he does not understand why this provision is included in the regulation when the proper procedure would be, once that employee has been injured or falls ill, the employer sends him to a doctor and starts the worker's compensation process. Mr. Welsh stated that one problem with relying solely on the worker's compensation system to take care of that is that the medical evaluation provided through the worker's compensation system is going to be for compensation, to determine whether the employee's condition is caused by a workplace exposure and how much of that is compensable.

This medical evaluation is focused on something different: it is trying to figure out how the employee's condition is related to work, whether the employee can still work there and has to be removed in order to keep from getting worse, and it is more a method of managing the employee medically while they continue to work.

Mr. Welsh stated that the biggest problem they have had throughout the last three years has not be developing a regulation, not managing the FISHEP program, it has been tracking the 40 to 50 employees who have gotten some kind of pulmonary change that may be related to diacetyl and following them with periodic pulmonary function testing and making sure they keep going back to the doctor and keep getting called. The Division has to keep going back to the workplace and see if those employees are being properly protected from exposure.

There is an aspect of medical management for which there is no system; the Division has had to develop the system at considerable resource consumption. This provision is an attempt to make it the employer's obligation under this regulation to manage that employee medically, remove him if necessary, put him back to work under whatever restrictions are necessary, and if in that process the employee loses pay because his job duties change or because they lose work, make sure that they are made whole and compensated.

Mr. Washington stated that nothing in Mr. Welsh's comments changes the worker's compensation system. He stated that he does not understand how the Division can circumvent a program that is established by statute, and what Mr. Welsh has described is exactly what the worker's compensation program is designed to do. It will treat and take care of all identification of all the ills that are work related and that an employee incurs, so to have a program in the proposed regulation that will circumvent that and insert another obligation on top of what the employer is already required to do strikes him as being redundant and unnecessary.

Ms. Gold stated that the provision in the proposal is more similar to medical removal under the lead standard or the cadmium standard, in which the employer is trying to encourage the

employee to participate in medical surveillance. In the medical surveillance, the employer is going to be detecting changes in their pulmonary function that may or may not indicate disease and may or may not indicate diacetyl-related disease. Thus, the employers are going to be doing spirometry on these employees and they are going to be completing these questionnaires, and they are going to find people who are not sick. The question is what to do when something is detected through that medical surveillance—and they want to find the effect as early as possible—they want the employees to go in and participate in the medical surveillance so we can find these effects before they have to stop working and before they have an irreversible disease, and that is what the medical surveillance is about. There is a provision that comes from the lead standard and similar standards with medical surveillance requirements that indicate how the medical surveillance program will interface with worker's compensation if, in fact, the employee ends up with a compensable disease. However, many of the people who are going to be medically removed are not going to have a compensable disease. They are not going to be in the worker's compensation system. They are being removed while the health care professional is trying to determine whether the employee's lung function changed from six months ago to the present because he has a cold or some other reason or whether it changed because of exposure to diacetyl. This is medical removal related to medical surveillance rather than compensation for a work-related illness. Sometimes that line will be crossed, which is why language was taken from existing standards with medical surveillance provisions.

Mr. Washington stated that he read the lead standard in preparation for today's meeting, and he did not want to continue the discussion, he simply wanted it on record. He suggested that both the PLHCP written opinion provision (subsection (h)) and the medical removal provision (subsection (i)) be carefully considered. He further stated that many of these companies are not large employers but companies with 50 employees or fewer, and the cost of this program to those employers could be prohibitive. He encouraged the Division to discuss these provisions with the Worker's Compensation agency and get its comments on the proposal.

Chair MacLeod asked Mr. Washington whether the issue was one of overlapping authority. Mr. Washington responded that the concern was overlapping authority and that once the lung disease is determined to be work-related, it becomes a worker's compensation issue. He again suggested that the provisions be discussed with the Worker's Compensation agency to ensure that they do not conflict with the worker's compensation program.

Mr. Prescott asked for the rationale or justification of the 1% concentration trigger point. Mr. Welsh responded that the starting point is below 1%, because that is where the reporting requirement arises under the MSDS requirement. If the food manufacturing industry is being regulated, and we want them to know what concentration is in their food products, they can find out if it is 1% or more for their MSDS requirements; they have a way to find out. It is a bit of a different issue for food manufacturers versus flavor manufacturers. Flavor manufacturers will know what they are working with because they order chemicals based on the concentration because they actually do the formulations of the flavors. It is true, as has been stated at today's meeting, that there is no proof that working with substances with lower concentrations than 1% is safe; however, there is an abundance of proof that virtually all of the cases of bronchiolitis obliterans and fixed obstructive lung disease that have been identified have occurred in environments where they were working with substances that were significantly greater than 1% concentration. He stated that he would prefer a lower trigger amount, and he thinks it might be

appropriate to consider a lower trigger for flavor manufacturers, at least. The reason for the 1% is that the lower the concentration, the less likely it is for higher concentrations to be in the air. There are definite, legitimate concerns that perhaps it may not provide complete safety; that cannot be ruled out of a 1% concentration trigger. However, it is much better than higher concentrations, and since it is recordable on the MSDS at that level, food manufacturers can be held to it. If the level is decreased for food manufacturers, then it would be difficult to determine the concentration that they are working with. There is a problem with boundaries; if there is a concentration trigger for the requirements, and there is not a PEL, which currently does not have supporting data, then the concentration trigger is the most appropriate method and the question then becomes one of an appropriate trigger concentration.

Mr. Prescott asked whether the access provision (subsection (d)(3)) was meant to refer to Division personnel, not the employer's. Mr. Welsh responded affirmatively.

Mr. Prescott then stated that all of the appendices are mandatory, and he expressed concern regarding employee training. He stated that federal standards quite often contain a provision that compliance with the appendices is voluntary, and if an employer has a procedure that provides equivalent or greater safety, it is acceptable. He suggested that such a provision in the proposed standard would serve to alleviate some of the concern regarding Appendices B1 and B2. He stated that, ordinarily in the respirator protection standards, there is a clause that states that the questionnaire goes directly to the medical provider, not to the employer, and he does not find that language in the proposed standard. He expressed concern that that information could go to the employer, which is a potential violation of Health Insurance Portability and Accountability Act (HIPAA) regulations regarding confidentiality.

Mr. Washington expressed concern regarding the records retention requirement for businesses that close and asked whether that is consistent with other regulations dealing with carcinogens and other harmful chemicals. Mr. Welsh responded that he did not have that information with him, but the question would be answered in the Summary and Response to Comments.

Chair MacLeod stated that the proposed regulation is breaking new territory, and he expressed appreciation for all of the comments received, both oral and written. The degree of difficulty with this proposal is that we are trying to craft a regulation in an area where we do not have accurate data, and we are even unsure of all of the chemical compounds that need to be addressed with respect to substitutes. It takes a lot of creative thinking and wisdom to proceed on this course. He also expressed appreciation for all of the hard work performed by all parties over the past two years in crafting this proposal. It is an important endeavor, and this chemical does have some clearly hazardous components. He asked whether there had been any chemicals in the past that the Board had attempted to regulate without a PEL. Mr. Welsh responded affirmatively, stating that there are a number of carcinogens that have been regulated this way, which were the model for this proposal.

Chair MacLeod asked whether a concentration trigger had been attempted before. Mr. Welsh responded that there is a concentration trigger in the asbestos standard for certain requirements.

Chair MacLeod stated that, obviously, there is still a lot of work to do, based on the comments received.

Mr. Welsh stated that he has had some communication with NIOSH, who intends to submit a letter, and he asked that the Board hold the record open long enough for them to have time to submit that letter. It must be submitted through several levels of review before it is released, and it could be as long as two weeks before they are able to do so.

Chair MacLeod asked for the Board's input regarding holding the record open for two weeks.

Dr. Frisch responded that holding the record open for NIOSH's comments would be beneficial, stating that they are an authoritative body, and they have been working very hard on this issue. Mr. Welsh expressed appreciation for Dr. Frisch's comment and stated that NIOSH is the definitive authority on this issue at the present time.

Mr. Jackson asked whether Mr. Welsh whether two weeks is enough time for NIOSH to submit its comments. Mr. Welsh responded that he had not received absolute assurance that the comments would be submitted within two weeks, and if the Board is comfortable with a longer period, he would support that.

Mr. Jackson stated that it is appropriate that the Board hold the record open for the NIOSH comments, and he expressed reluctance to make that period of time too short.

Dr. Frisch asked the Chair whether there were any negative implications if the Board were to hold the record open until the end of the year. Chair MacLeod responded that the real problem is with the Division's response to comments, stating that if the record is held open, anyone can comment not just NIOSH. The real challenge, however, is the Division's ability to respond to comments within the one-year time frame that the Board has in which to adopt the regulation.

Mr. Welsh asked whether there was any legal impediment to incorporating the letter into the file and using it as a reference if it is received after the deadline. Mr. Beales responded that the letter could be referenced in a 15-day Notice as a further document relied upon by the Division.

Mr. Welsh expressed the opinion that it would be better to include the NIOSH letter as a comment, and stated that if the Board could hold the record open for four weeks, that would be best.

Mr. Jackson suggested that the record be held open until the Board's next regularly scheduled meeting on December 17, 2009. Mr. Welsh responded that if NIOSH cannot comment in four weeks, perhaps they cannot comment at all, so that time frame would be reasonable.

Mr. Prescott and Dr. Frisch suggested closing the comment the day before the next meeting.

Chair MacLeod also asked that the Board receive the Summary and Response to Comments prior to calendaring the proposal for adoption.

Mr. Jackson suggested that the Board receive the Summary and Response to Comments at least 30 days before adoption of the standard.

Chair MacLeod stated that the record would be held open for written comments on the diacetyl standard until December 16, 2009, at 5:00 p.m.

B. ADJOURNMENT

Chair MacLeod adjourned the Public Hearing at 1:46 p.m.

**III. BUSINESS MEETING**

Chair MacLeod called the Business Meeting of the Board to order at 1:46 p.m., November 19, 2009, in the Costa Mesa City Council Chambers.

A. PROPOSED VARIANCE DECISIONS FOR ADOPTION

Mr. Beales requested that the Board approve the items on the consent calendar and adopt the proposed decisions.

MOTION

A motion was made by Mr. Jackson and seconded by Dr. Frisch to adopt the consent calendar as proposed.

A roll call was taken, and all members voted "aye." The motion passed.

B. OTHER

1. Board discussion/inquiry regarding the status of the Petition 507 related rulemaking and Board action, if and as deemed appropriate by the Board, directing Board staff to undertake actions regarding that rulemaking.

Chair MacLeod re-opened the Public Meeting in order to take public comments regarding Petition 507.

Bo Bradley, AGC of California, stated that back in October, the Petitioners met with CARB and several other people and reached a temporary agreement as far as moving forward with Petition 507 in regards to installing the filters that currently obstruct vision on pieces of equipment, and that temporary agreement is in effect while CARB conducts testing and performs further research. CARB asked for a six-month period for this testing and research, which would put it at March before a testing model is developed.

Ms. Bradley expressed concern that if Petitioners wait until the testing is over, they are going to have to wait longer for the language to be developed, which could mean another year before there is a proposed rulemaking ready for public comment and Board consideration. She stated that that is too long to wait.

She asked that the Board consider going forward with proposed language so that by the time the testing is done, the rulemaking proposal can be ready for public hearing and adoption as soon as possible. She expressed concern that to do otherwise would risk further delay of a regulation, which she is certain is going to be necessary regardless of the outcome of the testing and research.

Mr. Washington asked what the Petitioners would do in the interim between now and the end of the six-month testing period. Ms. Bradley responded that the current agreement is that any filter that obstructs any vision to the sides, front, or rear of a piece of equipment is not permitted. Employers are to apply for an exemption on that piece of equipment. If CARB feels that it is still safe to install that filter but the employer disagrees, then the Division will get involved and make the determination regarding obstruction of vision. Currently, zero visibility obstruction is the only thing acceptable, because there are filters that do not impact visibility.

Mr. Jackson asked about employers that have retrofit their equipment to comply with CARB's regulation and have already obstructed the view to the rear of the vehicle. He asked the Division's position about those employers being in violation of the existing obstruction regulation. Mr. Welsh responded that the Division's position is that employers should not be operating an unsafe vehicle, and he asked Eric White of CARB to comment on what CARB's policy is going to be.

Mr. Jackson stated that he is not interested in CARB's position but rather he is concerned about employers that have already retrofit their equipment. Mr. Welsh responded that the Division does not want that equipment operating, and those employers right now are stuck with a bunch of vehicles that have been retrofit and something needs to be done about that, and there are issues about taking the vehicles out of service, taking the retrofits off, getting credits, etc., and it might help if Mr. White were to provide some description of how CARB is going to treat that issue.

Mr. White stated that CARB has worked very closely with Mr. Welsh and his staff in terms of exploring the visibility concerns around off-road equipment, and he stated that CARB had recently entered into an agreement with the Division to provide a mechanism for the installation of retrofits in a way that will not have an impact on visibility to the front, rear, or sides. CARB is in the process of putting together a methodology for people to use to make that evaluation so that they will know whether or not a retrofit does or does not impact visibility.

Mr. White stated that the Petitioners have been concerned with fleets that have already installed retrofits because they feel caught in the middle between the two state agencies with requirements that are in conflict with each other for some of the retrofits. CARB is in the process of putting out policy guidance that will allow fleets to maintain the credits that they have for retrofitting and provide them the ability to remove the device and put it on another one where visibility will not be impacted and the ability to idle the equipment.

Currently, most fleets are at the lowest point of activity of the year, as winter is the off-season for construction, particularly in Northern California. CARB shares the Division's intent, in that they want to accommodate fleets as much as possible, recognizing that they feel somewhat caught in the middle, and CARB needs to make every effort to ensure that they have provided a path out so that they are not unnecessarily burdened as CARB performs its assessment.

Chair MacLeod asked when Mr. White expects the policy guidance to be completed. Mr. White responded that for the fleets that already have the filters installed he expects the guidance to come out very shortly. As part of the implementation of their regulation, CARB has an industry-CARB workgroup that has been in place for a number of years, and one of the subcommittees to that is a safety subcommittee. In response to some comments and suggestions from industry, CARB is reconvening the safety subcommittee and scheduling a meeting for the second week of December. The intent is to have a methodology that the stakeholders can examine to evaluate whether or not a retrofit will in fact impede visibility. CARB is sharing this proposed policy guidance on existing retrofits with employers so they can get industry feedback. CARB wants a policy and a methodology that is going to work, and they find industry feedback very valuable in guiding CARB and alleviating concerns and implementation issues that may occur in the future.

Mr. White noted that the first compliance date under the CARB regulation is March 1, so there is some time to provide resolution and clarity on this issue over the next month or so. CARB is working very quickly to pull all of this together in a way that provide clarity to fleets. He also noted that the legislature directed CARB earlier this year to make some amendments to the regulation, which were approved in July, which provide some new credit mechanisms for fleets that are experiencing a downturn, either in activity or vehicle retirements, because of the current recession. Thus, CARB expects that many of the fleets that are going to be affected by that March 1 deadline will, in fact, have sufficient credits that they probably will not be looking at having to retrofit their vehicles in the first year.

CARB thinks that with this approach they will be able to address this issue in the longer term in cooperation with the Division, industry, and other stakeholders so that by the middle of 2010, they will be able to come forward with a proposal that will address the issues around visibility, provide the needed specificity, and still provide enough time for fleets to meet future compliance dates.

Chair MacLeod expressed confusion, stating that there are two issues: one is the issue of vehicles that already have been retrofitted, and CARB is going to have a meeting in the second week of December on that issue; the second issue is in regard to vehicles that have not yet been retrofitted. Mr. White responded that CARB wants to simplify this process as much as possible for fleets, because they recognize that CARB has a complicated regulation, and the issue of visibility has added complexity to it.

CARB intends to establish lists of vehicles that have already been retrofitted in a way that does not impact visibility, and typically that means the retrofit is able to fit as a muffler replacement underneath the vehicle hood. There are a number of vehicles that already have been successfully retrofit in that manner. The expectation moving forward would be that those vehicles can continue to be retrofit. However, there is a much broader population of vehicles on which no assessment has been done, and they do not want to "reinvent the wheel" each and every time for each and every fleet. Thus, CARB also will be compiling a list of vehicles for which an assessment has been done, and that assessment has determined that a retrofit cannot be done without impacting visibility, so any fleet operator that has one of those vehicles will know that they do not have to retrofit that vehicle in the first year while the longer-term study is being performed, and there is objective criteria for future evaluations.

Mr. Welsh stated, for purposes of clarification, that right now, nobody is required to put a retrofit on a vehicle if they feel that the visibility is going to be impaired; they can apply to CARB for abeyance of that requirement if they feel that there is a visibility problem. If CARB disagrees, then the Division will make the decision. Mr. White responded affirmatively.

Mr. White went on to state that CARB has two new web pages they will be launching in support of this plan. One is helping people to understand what retrofits are, how to go through the selection process, and other basic information that fleets should have. The second one is how fleets can go about requesting an exemption from CARB. They plan to include both the internal policy that they have with the Division, the methodology that they are working with the Division to develop so fleets can make that assessment on whether or not visibility is impaired, the lists of vehicles that can and cannot be retrofit, and the application form.

Chair MacLeod asked whether CARB is still working on methodology to measure visibility and criteria to apply to vehicles that have not yet been retrofitted. Mr. White responded affirmatively. He stated that CARB wants a methodology that a typical fleet owner would understand and be able to implement, and they have been working with Tom Mitchell on how to do that, whether there is a way to use the mirrors and whether or not there are any visibility obstructions. There are some proposals for perhaps using cameras to do that, and Mr. White expressed the opinion that they are getting close to having that methodology in place that will allow fleets to definitively make that application to CARB.

Chair MacLeod asked whether there is a work plan as to how and when this methodology will be developed. Mr. White responded that the work plan is that for the December meeting, CARB would like to have the methodology in agreement with CalOSHA so that it can be provided to the stakeholders.

Chair MacLeod asked whether there is a time frame in which this assessment will be done. Mr. White responded that the process probably would be quicker if they did not intend to bring the industry in to provide some valuable feedback, something that is going to be field workable, reproducible, and that meets everyone's standards.

CARB does not want to do anything that is going to impact safety, and it is going to be very important to get that feedback from industry and from labor and the other stakeholders so they have an opportunity to say whether or not they feel this interim policy and this interim methodology is going to meet their concerns around this issue. Mr. White expects that being able to have the meeting would mean being able to have something by the end of the year that fleets are going to be able to use.

Ms. Hart asked Mr. White what the date of that meeting would be. Mr. White responded that the CARB Board meets on December 9 and 10, and there are going to be a number of stakeholders because an update on this regulation is on the Board's December agenda, so he would suspect Monday, December 7, or Tuesday, December 8.

Ms. Hart stated that the methodology is being developed by Tom Mitchell, CARB staff, and Division staff, and although a lot of progress has been made, there is no guarantee that there will

be a methodology available by December 7 to actually present to the people at the meeting. At some point in the conversation today, Ms. Hart feels it is important that Mr. Mitchell speak to what he has been doing, although methodologies have been developed, they do not work as well in field testing as they do on paper. Thus, prior to bringing anything before this committee, tests need to be made so that untested information is not being disseminated.

Mr. Prescott stated that CARB has had over two years that the regulation has been in place, and labor fought very hard to get the wording that says that if the installation of the filters violates a CalOSHA that they shall make exception. He asked why that process is not in place already, as it has been over two years. Mr. White responded that as CARB has tried to implement so many aspects of this regulation, their initial focus was on educating fleets as to what the requirements were, updating their Board as to the ongoing progress with that, and dealing with some of the legislative direction that they have received, CARB has had to prioritize those issues.

He stated that in terms of a process by which fleets could apply for this particular exemption, there have not been a lot of fleets clamoring to do this; there have been a handful of fleets that have contacted CARB even with the ongoing discussion and ongoing work CARB has been doing with CalOSHA about how to actually go about doing that. While he agrees that it is important to have this process, and this process is clearly needed sooner rather than later, CARB has been somewhat restricted by its limited resources. He expressed certainty that they would have it in time for fleets to utilize and not be penalized as we approach the March 1 deadline. He stated that the pace at which they have been able to look at safety and how to address the obstruction of visibility has really picked up, and a lot of progress has been made lately that has really given CARB the direction they need to try to address this head-on before the March deadline.

Mr. Prescott asked whether there is any chance that the CARB Board would vote to delay the March 1 deadline in lieu of the safety issues. Mr. White responded that an update on this regulation is calendared for the December Board meeting, and while that update is not regulatory, and the Board cannot make any changes to the regulation at that meeting, the Board always has the ability to direct staff to bring any recommendations forward that they see fit in regards to any aspect of the regulation.

Mr. Prescott asked whether Mr. White meant that the deadline would not be delayed. Mr. White responded that he would never say never. There are always mechanisms to modify a regulation. The deadline would not be delayed at the December meeting, but beyond that he could not predict what direction or what actions the Board may choose to take on any aspect of the regulation, including this one.

Mr. Prescott expressed a number of concerns regarding the safety subcommittee and the December meeting. He stated that one of the members of that subcommittee in the audience was shaking his head no, that he had never heard of that date; so it is not published to the members that that meeting is going to take place. This has been more common than not with that safety subcommittee, right up to when this petition was first brought up at that safety subcommittee, and the safety subcommittee strongly disagreed with the CARB staff position on it. CARB staff took this offline and told the safety subcommittee members that if they disagreed with CARB

staff, they could comment at the public meetings. Mr. Prescott stated that he was appalled when that happened.

Until the pressure from the Standards Board and the petition was brought to bear, there has not been any forward movement on the safety issue. He stated that he is extremely concerned about CARB asking to delay the Standards Board making a rule based on the amount of time there has already been and the issue has not been addressed until the petition was presented to the Standards Board. CARB is requesting six months to collect data, and he feels that the Standards Board is being asked to delay protecting the workers so that CARB can come up with a methodology that should have been in place some time ago.

Mr. White responded that CARB has learned a lot about safety through this process, both working with the Division and Board staff and doing their own research about how visibility is evaluated. CARB felt that they had a sound proposal that addressed a number of issues that the Petitioners had raised about what is an appropriate level of masking that would still make the vehicle safe. As they have gone through that process, CARB recognizes that there are substantial concerns about any masking that may occur on a vehicle. Instead of moving forward with regulation now and having to go back and amend the regulation in light of the field study it is better to allow the field study to proceed in conjunction with the exemption process.

Mr. Welsh suggested that the Board might want to hear Mr. Mitchell's report because if CARB staff, Division staff, and Board staff are reasonably close to getting a measurement methodology in place that would actually help to characterize whether or not there is masking, that would be better than a less specific regulation that could create some confusion. He stated that if they are making progress, and they can predict that, within a reasonably small time frame, they can come up with a proposal for a less quantitative approach, that could be a regulation the Board could consider adopting, and it would probably be better than anything seen so far.

Mr. Prescott commented that although idling a vehicle that has been retrofit sounds good in theory, the cost to an owner to park a vehicle is substantial. He stated that some people may not be able to stay in business if they have to park their vehicles. If the retrofits are blocking the operators' visibility, those retrofits need to come off the equipment, not park the vehicle. That is easy enough to do and would be consistent with the agreement between CARB and the Division. CARB needs to make it clear to the regulated public that if the retrofit on a vehicle is blocking visibility, it needs to come off; asking a fleet owner to park that vehicle might very well endanger that person's business.

Mr. White responded that he agreed with Mr. Prescott, stating that parking the vehicle is only one of several options CARB wants to provide to fleets as a way to deal with the visibility issue but maintain any credits they may have received through the CARB regulation. Certainly another mechanism is to afford fleets the ability to remove that device from the vehicle, reinstall a stock muffler or a straight run-off exhaust pipe, and continue to operate that vehicle while that fleet still retains the credits it obtained under the CARB regulation. CARB does not want to penalize fleets for actions that they have taken in good faith to comply with the CARB regulation, and the CARB policy will reflect that. CARB would like an opportunity to discuss that policy with industry.

Mr. Prescott asked when that policy would be issued. Mr. White responded that he would like to have the policy out by the end of the year, but he emphasized the importance of having feedback from the stakeholders because the safety subcommittee includes members other than the Petitioners, and there are other viewpoints based on good, technical knowledge that can be brought to this discussion in addition to real feedback from real fleets that are part of that subcommittee. He stated that CARB staff is driven to have that policy out by the end of the year because time is quickly running out, and fleets need that certainty.

Ms. Hart asked when the lists of vehicles that can and cannot be retrofit would be available for reference. Mr. White responded that CARB has identified four vehicles to date based on some demonstration programs they have done. He expects that the web page will be posted before the December meeting. He stated that it is important so that employers will have some guidance regarding how to perform their own evaluations and how to apply for exemptions.

Chair MacLeod asked whether CARB has technical staff dedicated to these studies. Mr. White responded affirmatively.

Dave Harrison of Operating Engineers Local 3 stated that he agrees with the comments made by Ms. Bradley. In addition, he stated that it has been a year since the petition decision was adopted, and now the Petitioners are being asked to wait another six months while studies are performed and information is gathered. The only reason he is willing to accept that delay for now is that there was a meeting at the Governor's office last month with all of the parties, and at that meeting the Governor's staff reassured the Petitioners that safety would not be sacrificed in the interest of air quality, and Mr. White has repeated that assurance today.

Mr. Harrison expressed concern that he has been a member of the safety subcommittee for approximately four months, and he has yet to attend a meeting of that subcommittee. Today is the first he has heard of a meeting with CARB in December. In addition, he expressed concern regarding the term "*de minimus*," stating that, to his best understanding, the term means "how much is acceptable." He stated that when the issue under discussion is blocking visibility with the installation of these retrofits, no amount is acceptable. He stated that in balancing employee safety and air quality, employee safety should be on that scale so *de minimus* should not be part of the conversation.

Bruce Wick of the California Professional Association of Specialty Contractors (CalPASC) stated that employees on the ground around 50-ton pieces of mobile equipment is a really scary, dangerous prospect, and employee safety must be paramount in that environment. This is also the first time that labor and management have cooperated on a petition, and the experience has been disappointing in that the process has not progressed faster, although he understands that resources are limited. In addition, some of the large fleets may have a little relief from the March 1 deadline, but every fleet in California, or at least most of them, are also trying to survive. They have to make strategic decisions about equipment that they may be able to liquidate and try to pump some cash into their business to weather this situation. Those people do want to have clear information about the equipment that they have, so the sooner that information is available, the better. Communication is so important that he would ask the Board to request monthly updates on how the process is going.

Mr. Mitchell stated that he has been working with a couple of engineers from CARB and with Mike Donlon of the Division trying to develop a test method to measure the masking caused by the diesel particulate filter retrofits around the area of the vehicle. There currently are no procedures for testing of this kind, so one of the starting points they explored was an ISO standard for visibility for heavy equipment, and there is a similar SAE document. It is a very elaborate procedure used by manufacturers that requires the ability to put a large piece of equipment into an absolutely dark room and using a light to cast shadows from the operator's point of view, which is impractical for this purpose. There are some alternative methods suggested in both the ISO and the SAE documents in which a light bar is placed at an index point. It has been a step-by-step process of trying to make some of these procedures more practical and modify them to our use. They have gotten over the first hurdle of identifying the index point of where to place a light bar. Now they are working on developing a protocol on how the light bar should be used and locating and measuring the masked areas, but they are not done with that. They have discovered that in some cases that protocol works and in some cases it does not. For instance, they currently can identify masked areas at an elevation of 1.5 meters, which is approximately shoulder height from the operator's perspective. They cannot do it from the ground level, although they are using a method suggested by the ISO, using a mirror and looking for the reflection of the light from the operator's seat. That presented unexpected problems, because there was no method for that. It may not even be necessary to perform that particular test; they may be able to accomplish the measure of visibility impairment doing the other test which identifies the masking at the elevation of 1.5 meters (approximately five feet). It has been a process of trial and error, and if a method does work, they still have to develop the equipment to obtain baseline measurements. A big part of it has been ensuring that the test method is reproducible and whether it will work on every piece of equipment. CARB has identified 170,000 vehicles that need to be retrofit, and they have four that can be retrofit safely.

Mr. Kastorff asked how many types of vehicles there were. Mr. Mitchell responded that he did not know, and that question has been posed to CARB, and they are unable to provide an answer as well, although it is a large number. It is all diesel off-road equipment. There are a lot, such as loaders and bulldozers, that are commonly used, but there are other pieces of equipment that are more esoteric that will have different types of configurations and places where a filter may be placed. It will present some challenges because they have to identify that there is no place where the filter could be placed that would not impair visibility. The procedure is still being developed, and then they have to get out in the field and perform a sampling of equipment.

Ms. Hart stated that this is a whole new arena for the Standards Board staff, Division staff, and even CARB. We are trying not only to determine the methodology and how we are going to make this work, we are developing the equipment to make it work, and this is an area we have not been in in the past. She knows that there is some urgency, and it is so easy to make it sound like a simple process, but then reality sets in, and the pitfalls are in front of us, and that is what Mr. Mitchell is dealing with on a fairly regular basis. Every time we feel we have a little breakthrough, we have a setback, but we continue to persevere, and she expressed gratitude for the assistance Board staff has received from CARB and Division staff in going out in the field. She emphasized the idea that they may not have a fool-proof method by December 7 or 8.

Chair MacLeod asked how many people among the three agencies are working on this procedure. Mr. Mitchell stated that there is a core group of three or four that are working on the

method and the testing, and he emphasized that they are not full-time on this, as much as they would like to be. They understand that this is an urgent situation for stakeholders, and they are trying to go as quickly as they can.

Chair MacLeod asked about the possibility of assembling a work plan with a timeline as to what needs to be done and how quickly they think they can do it, given their priorities and resources, and briefing the Board next month. Mr. White stated that if we need to move forward quickly with a less-than-ideal test method that fleets can use and that CARB will accept in the interim, they are ready to move forward on that. They would prefer perfection, and CARB has a history of being able to develop test methods for emissions testing, but this is the first time they have been involved with anything related to vehicular safety. He expressed agreement with Mr. Mitchell that there are a lot of subtleties to what they are doing now, which will serve as a foundation for what the Board staff will present as a rulemaking proposal on how this will be addressed. He stated that there are approximately six people from CARB staff that are working on this, some of whom are working directly with Mr. Mitchell on developing a test method as well as a number of other staff that are available in the field in Southern California that have good, hands-on experience with retrofits. He stated that CARB would like to move some of these things forward, not just on an interim basis but also to achieve the critical milestones in understanding what the vehicles are and which are the most numerous and prevalent in California so they can focus on those vehicles. He stated that he would get together with his staff on Monday to start to put a work plan together and share it with the Board staff and with the Division staff.

Chair MacLeod stated that since all three agencies are working on this, he would like to see all three staffs work together to develop the work plan. Mr. White responded that CARB staff have met with Ms. Hart and Board staff on a number of occasions, and they are willing to continue those meetings if that will help the process along.

Mr. Welsh stated that he would like to clarify one issue about the March 1, 2010, deadline and how we are going to manage this if it takes several months to develop the methodology. He asked Mr. White whether, as far as the March 1, 2010, deadline goes, CARB is following an under-the-hood policy. Mr. White responded that the filter must fit under the hood or within the existing obstructions of the vehicle. For example, on a bulldozer where the operator cannot see over the blade anyway, or as long as visibility is not made any worse, CARB would interpret that as not obstructing visibility.

Mr. Welsh stated that, in terms of the stakeholders' problem, there is a fairly robust policy of people being exempted from the March 1 deadline, and he asked what the next step would be. Mr. White responded that there is no deadline until March 1, 2011.

Mr. Welsh then asked about what should be done if the March 1, 2011, deadline is not going to be met. Mr. White responded that if the process is completed but does not allow enough time for the fleets to meet the March 1, 2011, deadline, there will be an opportunity for CARB to look at that deadline to see whether changing or extending it is appropriate. In addition, with the involvement that CARB staff currently has with the Board staff and with Division staff, they will be able to make recommendations to their Board if they find that there are issues for fleets to comply with that deadline.

Mr. Prescott stated that he would like to see a standard in place before we have to start thinking about alternatives. It has now been over a year, and it looks like it may be another year before this is resolved. He stated that he can take a stick with a nail on it, put it where the operator's eyes are supposed to be, and pull a string out, and when the string hits an obstacle and starts to bend, that is where visibility ends. There are many ways to measure this, some more accurate than others, but we need to move forward and have a regulation in place, and not keep postponing it. He is not sure that any further postponements are going to be acceptable to the Petitioners.

Mr. Welsh stated that the current postponement works in the Petitioners' favor because the retrofit requirement basically has been nullified and owners do not have to do it, and he asked whether that was what the Petitioners wanted. Mr. Prescott responded that the Petitioners want a regulation.

Chair MacLeod called a ten-minute recess at 2:45 p.m. and reconvened the meeting at 2:55 p.m.

Mr. Jackson stated that there are some employers who have already retrofit their equipment in order to comply in good faith with the CARB regulation, and in doing so, may have put their employees at risk, but we have not been able to give that group of employers any clear indication of how much obstruction is too much should they, in fact, take the devices off the equipment. He further stated that right now, today, if an employer backs over an employee, that employer is wrong. He asked the Division to provide some direction for those employers as to whether they should remove the retrofits and how much obstruction is too much. Mr. Welsh responded that the employers are not to use those vehicles. Their choice is to either park the vehicle and not use it or to remove the retrofit, which CARB will allow them to do. Mr. Jackson thanked Mr. Welsh, stating that that was a clear answer that could be provided to employers.

Dr. Frisch stated that although this is outside his area of expertise, he stated that something that has not been discussed all afternoon is the danger to the employees on the ground. If a piece of equipment backs over an employee, the employer is not only wrong, he also is faced with a dead employee. He expressed continued concern because this Board is charged with occupational safety and health, not the air or the environment. He stated that he has heard some remarks that have been complimentary to CARB related to safety recently. He also has heard some remarks outside the context of this meeting from CARB representatives who did not know that he was near the effect that they are not going to let a little occupational safety and health board get in the way of getting this regulation in place, and he was angered by those remarks.

He wants to make sure that the Occupational Safety and Health Standards Board is protecting the workers. If we can do this in a manner that is consistent with and in compliance with CARB's regulation, that is fine; however, he does not want to be put in a position where he is told that an employee died because the Board did not adopt a regulation and allowed a device to back over an employee in a yard. He has examined some of these trucks, and he would not be able to operate them with full 360° views. What these operators do is already amazing. It is the Board's job to make sure that they are operating the equipment safely. He fully recognizes that we need to try to work cooperatively to get this done, but he also thinks that we need to move forward on figuring out how to solve the problem.

The necessary research described by Mr. Mitchell sounds like original, brand new research, not like we are going to use an existing regulation. He stated that he does not want to have an experiment in progress and have the decision about a regulation related to when that experiment might produce valid results. With all respect to Mr. Mitchell and his counterparts at the other agencies, it is an experiment, and if they get to March and have not developed a methodology that actually works, it is just going to prolong the regulation. He would like to see the staff start working on a parallel path to get a regulation together to address this issue and to address the petition so that we are not developing analysis paralysis. He recognizes that CARB is trying to accommodate employers, which is great, and he commends them. However, CARB does not have a health and safety mandate, which the Standards Board does, and that means that the Board is going to have to act on this. He would like to see staff start to develop language for a regulation.

Mr. Prescott stated that the Petitioners had indicated in their remarks that they were okay with six months but not additional delays. He echoed Dr. Frisch's remarks that the Board has the responsibility of occupational safety and health, and a regulation can be put forward in a time frame so that when six months is up, which will be in March, there is no reason that the Board should not be ready to go with language that can be noticed for public hearing. He does not see any reason to delay beyond March. If the Board puts language out now that indicates zero blockage, and if in a later time frame the data shows that some blockage could be done without trading additional safety hazards, there is no reason that we should not be able to have a regulation in effect this spring before the construction season begins in the summer. It is the Board's job to ensure that every employee in this state is able to go home in one piece.

He expressed concern about the number of sidebar meetings that have taken place that have not included the Petitioners and perhaps the Board staff. He strongly feels the need for public record. This is a public process, and the Board has done an excellent job of keeping everything public, and that needs to continue. He is also very concerned with the things that have taken place in CARB's safety subcommittee with shutting people down that have opinions that differ from the staff's opinion, and he is not comfortable with that. The arena in which this Board's business is being aired at another Board's subcommittee does not sit well with him. He believes that the public process and public knowledge is necessary. He would like to see, if the Board staff is meeting with CARB staff, that the Petitioners be invited; he does not think that there is any reason that there should be private meetings.

He would also like standard measurements to be used instead of metrics. In the United States, standard measurements are the accepted format. If there is going to be a regulation with which employers can comply, that regulation should reference measurements with which they are familiar.

He asked that the Board direct staff to develop a rulemaking package that can be ready to notice for public hearing at the end of six months. He does not see any reason that we cannot have a regulation in April, and if it needs to be changed a year or two years in the future because processes have changed, it can be examined at that time.

Chair MacLeod stated that he was not at the meeting at which the decision for Petition 507 was adopted, but he has been advised of all of the activity to date. It is his understanding that what we have is a potential conflict and overlay from two state agencies, and that is why the Governor's office got involved. We are trying to resolve the issues that have been discussed between the two agencies, and the Governor's office got involved in that, and the interim agreement between the Division and CARB was the result of the meetings at the Governor's office.

Mr. Welsh stated that the stakeholders were present at that meeting, and they thought the interim agreement was a good temporary solution.

Chair MacLeod stated that the Board has the authority to direct staff to write a regulation, keeping in mind that it has to go through Agency, i.e., the Governor's office, before we can notice it for public hearing. Thus, if the Governor's office does not agree with the proposed rulemaking package, they will not approve it for hearing.

Mr. Welsh expressed the opinion that the Governor's office will go along with a proposed rulemaking if it can be done in a way that is harmonious with what CARB is doing. It seems as though we are partway down that path already.

Dr. Frisch asked if it was possible for the Board to direct staff to begin the preparation of regulation but not submit it for approval and notice. He expressed concern over the lead time that is necessary to prepare the rulemaking documents, and if we find that we are not making progress with the research and the visibility testing, this will at least provide the alternative of moving forward with more alacrity than would otherwise take place.

Ms. Hart asked whether it was the Board's intention to direct staff as to what that standard should require. She expressed uncertainty as to the Board's direction, because staff obviously can move ahead and prepare something for noticing that, in the real world, would waylay the process on which CARB, the Division, and Board staff are working collectively.

Dr. Frisch stated that his goal is to apply more pressure, because his feeling is that there will come a point where the research will either result in an effective methodology or not, and if it does not, he does not want to be caught unprepared without a Plan B. He would like staff to start thinking on a parallel path of what a regulation needs to include if we cannot come to a resolution on the visibility issues. Ms. Hart responded that it had been agreed today that all three parties would get together and develop a work plan.

Dr. Frisch stated that his memory of the original petition is that there were two issues: one was visibility and the other was a burn hazard from hot equipment. Nothing has been said about the heat issue, and he asked what had happened with the issue of extremely hot pieces of equipment right next to the grab points on vehicles. Mr. Manieri responded that there are two rulemaking packages that are about to begin the internal review process. One deals with the issue of hot pipes and surfaces, which comes from a Division Form 9 that specifies a temperature based on scientific studies. There is another one that has to do with off-road or off job-site visibility, which imposes the high visibility attire requirements from public roads to private roads.

Dr. Frisch asked whether the hot pipes and surfaces rulemaking package is considered responsive to this petition. Mr. Manieri responded affirmatively, and he stated that the second one is indirectly responsive to the petition.

Mr. Welsh asked that Board staff work with the Division to develop a proposal that is acceptable to CARB, with a request that that proposal be presented at the January meeting. Mr. Prescott responded that he would be happy with that, provided that it is also acceptable to the petitioners. He does not want them left out of this process. Mr. Welsh responded that he has no intention of leaving them out, but if the Division and Board staff can agree with CARB by the January meeting, we are probably not going to be able to do that.

Chair MacLeod called a recess at 3:10 p.m. and reconvened the meeting at 3:19 p.m.

Chair MacLeod stated that we should continue on the current path of cooperating with both CARB and the Governor's office in trying to develop criteria. The Board can direct staff to develop a proposal, but he was unsure whether there was consensus among the Board members for that.

Mr. Prescott stated that he was comfortable with Mr. Welsh's proposal that something be presented to the Board in January. Ms. Hart asked whether that was the methodology. Mr. Prescott responded that it was his impression that proposed language would be presented in January. Ms. Hart asked whether that language would be for Board discussion, stating that nothing would be noticed for public hearing in January. Mr. Prescott agreed, but stated that the Board would have a rulemaking package in January that included language that is acceptable to the Division, the Petitioners, and CARB, or if that language was not developed by January, we would know that we are not going to come to agreement and have to move forward and take our chances with upsetting the Governor's office. He did not think it would be possible to notice a proposal for public hearing in January, but there would be something the Board could look at in January that would then move forward into rulemaking. It was his estimation that that rulemaking would be ready around the April timeframe, which would place it within the Petitioners' expectations.

Chair MacLeod expressed doubt that language could be developed that quickly that CARB would approve. Mr. Prescott responded that he was basing his comments on Mr. Welsh's remarks that a proposal could be presented at the January meeting.

Mr. Welsh had left, but Mr. Foss spoke in his place, stating that we should be able to develop something where there is substantial agreement.

There was some discussion regarding the exact agreement that had come out of the meeting at the Governor's office, which was to establish a six-month time period after which a rulemaking proposal would be developed.

Mr. White stated that one of the reasons for providing this interim period is to go out and collect data, expressing concern that moving forward with a proposal before there is any data, which the Governor clearly directed the three agencies to collect, would be putting the cart before the horse in terms of what that data is going to show. He stated that the interim policy is, in fact, what the

Petitioners had asked for—zero obstruction of visibility, front, rear, and sides. That was what they had asked for, and CARB has agreed as an interim policy pending this evaluation to provide exemptions. There is a possibility that if the six-month period expires and the Board moves forward with a proposal and there are issues with compliance with CARB's regulation, CARB would amend that regulation. He expressed strong concern that moving forward with a proposal in January is much too quick in light of direction from the Governor's office. He stated that CARB and the Division are within a week of being able to having a methodology that they can start to use now that would be on the conservative side of the equation. This is an opportune time, as it is the off-season for construction, to conduct this work.

Ms. Hart stated that this would be a proposal for the Board to consider, it would not be a public hearing. It would be for discussion purposes only.

Mr. Foss stated that the methodology would have to be one that is implemented immediately, because if there are going to be problems, they will occur with using that method. It is important to test the method before it becomes part of a regulation.

Chair MacLeod asked that the Board direct staff to take a look at this in accordance with the earlier request that they come up with a multi-agency plan to approach what came out of the Governor's office and add what reasonably can be done in terms of a proposal, not as a public hearing item, but as an item for discussion. Mr. Mitchell responded that that was a good idea, but stated that there appear to have been different understandings of what was agreed to in the Governor's office. He stated that his understanding was that the three agencies would work together to develop a test plan, and that test plan would then be used to go out into the field and test the different equipment. CARB's concern was the interim policy cannot become a rule because it will affect their program; they need to go out and collect data to demonstrate how various criteria will affect their program. If a test procedure is developed and agreed upon, CARB can then go collect their data, and Board staff can use it for a regulation, but it needs to be the same test procedure.

Chair MacLeod stated that he had asked for a work plan created by the three agencies to be presented at the December meeting that would outline the development of the test plan, the visibility measurement, and the criteria.

Dr. Frisch asked that the work plan include a description of what decisions need to be made, when they need to be made, and who is going to make them. He stated that CARB is going to have to make decisions regarding whether or not to stay their regulation or maneuver around the timeline to prevent employers from being caught in the middle, and it would be helpful to see the decision points at CARB that will play into the decisions regarding a Standards Board regulation. He expressed concern that because of the complexity of the issue and the different agencies involved, he does not have a clear picture.

Chair MacLeod asked that the work plan include a defined time line for data collection.

Mr. Mitchell stated that the interim agreement that is on CARB's website is between CARB and the Division, and he has not been involved in that. He has been working with CARB and the

Division on collecting data and granting exemptions. He hopes to work with the Division and CARB jointly to develop a testing procedure.

Chair MacLeod stated that the work plan and schedule to which he is referring would relate to the development of that test procedure and criteria.

Ms. Hart stated that criteria is a separate issue than a testing procedure. Once a test methodology has been developed and agreed to, and it has been tested to ensure that it works, then they will turn their attention to any criteria that will apply. The studies that will be used by the Division and CARB will be used to determine what criteria may or may not work, and it is difficult to second-guess at this point what that criteria will be until there is a test methodology.

Mr. Kastorff stated that the interim agreement that had been included in the Board packets states that the regulation provides an ongoing, annual exemption for vehicles that cannot be retrofitted safely under the health and safety requirements. Thus, if a test methodology is not developed and criteria not determined, there is an annual exemption. He asked Mr. White whether that was acceptable to CARB. Mr. White responded affirmatively.

Mr. White stated that a lot of work will be completed between now and when the Board next meets in December, and there will be a lot of progress to report at that meeting regarding a work plan methodology and a plan for performing these assessments. That will be a good time to examine whether any progress is being made towards the end game of what retrofits mean and how they can impact visibility. In addition, there will have been an opportunity for CARB to have received an update on the joint agreement between the Division and CARB staff, and he is expecting commenters to be there that will have some thoughts on this agreement.

Chair MacLeod suggested to the Board that staff should focus on developing that work plan and bringing it back to the Board in December. At that point, it is hoped that better information will be available as well as a plan as to how staff is proceeding. Also at that meeting, Mr. White can present information about the meeting in the second week of December, to which the Petitioners should be invited, and any decisions coming out of that meeting.

Mr. Jackson asked, for purposes of clarification, whether Mr. White had stated that CARB would not have a punitive response if employers who have already retrofit their equipment have to take that device off in order to stay in compliance with Cal-OSHA. Mr. White responded affirmatively, stating that CARB would use its discretion to allow those vehicles to remain in operation with the device removed and still be in compliance with the regulation. One of the agenda items for the meeting in the second week of December will be regarding that policy to get stakeholder feedback.

Mr. Beales stated that in order to accomplish what the Board wants to accomplish, one of the Board members could make a motion to continue the current agenda item until the next month's meeting. Mr. Jackson made that motion, and Mr. Kastorff seconded it. The Board members were polled, and all voted aye. The motion passed.

## 2. Legislative Update

Mr. Beales stated that there were no further updates to what was presented in the Board packets.

3. Executive Officer's Report

Ms. Hart stated that she has no briefing today.

3. Future Agenda Items

Mr. Jackson asked whether all of the meeting locations for 2010 had been finalized and reserved. Ms. Hart responded affirmatively.

D. ADJOURNMENT

Chair MacLeod adjourned the Business Meeting at 3:40 p.m.