

## **DRAFT MEETING SUMMARY**

### **CAL/OSHA HEAT ILLNESS ADVISORY PROCESS**

#### **7<sup>TH</sup> MEETING**

**SEPTEMBER 20, 2005**

**OAKLAND, CALIFORNIA**

#### **Attendees**

Jim Abrams, California Hotel and Lodging Association  
Barry Bedwell, California Grape and Tree Fruit League  
Emanuel Benitez, California Rural Legal Assistance  
Gregg Berry, CalTrans  
Kevin Bland, Residential Framing Contractors Association  
Jodi Blom, California Framing Contractors  
Carl Borden, California Farm Bureau Federation  
Bo Bradley, Associated General Contractors  
Juli Broyles, California Chamber of Commerce  
Ed Calderon, Shea Homes  
Debbie Chinn, California Shakespeare Theatre  
Larry Crabtree, California Department of Forestry and Fire Protection  
Bob Downey  
Adrienne Fitch-Frankel, Cal COSH  
Jim Fitzpatrick, Motion Picture Association of America  
Harvard Fong, California Department of Pesticide Regulation  
Judi Freyman, Organization Resources Counselors  
Jon Frisch, Pacific Gas and Electric  
Joseph Frisch, Professor Emeritus, UC Berkeley  
Roy Gabriel, California Farm Bureau  
Rosa Greenhalgh, Armstrong Associates  
Martha Guzman, CRLA Foundation  
Tara Haas, Engineering and Utility Contractors Association  
Richard Harris, Residential Contractors  
Wendy Holt, Alliance of Motion Picture and Television Producers  
Roger Isom, California Cotton Growers Association  
William Jackson, Granite Construction  
Derrick Jarvis, E&J Gallo Winery  
Steve Johnson, Associated Roofing Contractors of the Bay Area Counties  
Anne Katten, CRLAF  
Jim Kegebein, Safety Consultant  
Dana Lahargene, Construction Employers Association  
Vince Lamaestra, Pacific Maritime Association  
Kevin Lancaster, Veen Law Office  
Dan Leacox, Livingston Mattesich  
Dave Little, San Diego AGC  
Marie Liu, Office of Senator Dean Florez

Kerry Lee, California Restaurant Association  
Peter Lupo, San Diego AGC  
Cindi Marshall, California - Sheet Metal Contractors National Association  
Etta Mason, Southern California Edison  
Marcie McClean, United Food and Commercial Workers Local 870  
John McCoy, Lakeview Professional Services  
Georgina Mendoza, CRLA  
Don Milani, Associated California Loggers  
Nancy Moorhouse, Teichert Construction  
Rob Neenan, California League of Food Processors  
Elisa Noble, California Farm Bureau Federation  
Janice Prudhomme, California Department of Health Services  
Catherine Porter, CalCosh  
Guy Prescott, Operating Engineers Local 3  
Dave Puglia, Western Growers  
Peter Robertson, CalTrans  
John Robinson, California Attractions and Park Association  
Howard Rosenberg, University of California, Berkeley  
John Salmassy, Berg Electric  
Lee Sandahl, International Longshoremens and Warehousemens Union  
Cindy Sato, Construction Employers Association  
Mark Schacht, CRLA Foundation  
Silas Shawver, CRLA Foundation  
Jason Schmelzer, California Manufacturing and Technology Association  
Fran Schreiber, WorkSafe  
Randy Smalley, Capital Builders  
Terry Thedell, Sempra Energy  
Kevin Thompson, Cal-OSHA Reporter  
Rhyanne Truax, Shasta Builders' Exchange  
Samantha Turner, Collishaw Enterprises  
Nancy Van Zwalenburg  
Jay Weir, SBC Communications  
Fred Walter, The Walter Law Firm  
Mike Watkins, California Department of Forestry and Fire Protection  
Angie Wei, California Labor Federation  
Greg Western, Air Design  
Bruce Wick, California Specialty Contractors  
Mike Wurm, Quest Technologies

### **Cal/OSHA Staff**

Len Welsh, Acting Chief, DOSH  
Keith Umamoto, Executive Officer, Cal/OSHA Standards Board  
Steve Smith, Supervising Industrial Hygienist, DOSH  
Tom Mitchell, Senior Industrial Hygienist, Cal/OSHA Standards Board  
Bob Barish, Senior Industrial Hygienist, DOSH

## **MAJOR DISCUSSION POINTS**

- Announcement was made of release of DOSH Question & Answer document on enforcement of the emergency standard for heat illness prevention (8 CCR 3395).
- Presentations were made by AGC and WorkSafe of their proposals for permanent rules for heat illness prevention. The AGC proposal was for the construction industry only – it included no specific trigger for application, deletion of the 2 gallon/employee water requirement, and allowance of means to provide shade for preventive recovery periods, rather than ongoing availability of a shaded area. The WorkSafe proposal was more detailed than the emergency regulation as detailed in the discussion summary below.
- Some employers expressed concerns about provision of shade for preventive recovery periods in some remote work locations
- The question of pay for preventive recovery breaks was discussed, including for employees on piece-rate compensation.
- Coverage of indoor workplaces was discussed briefly (Len Welsh asked proponents to be prepared to discuss necessity for this in detail at the next meeting).
- The Division presented data and statistics on heat illness cases – Len Welsh said a more complete report would be provided at the next meeting.
- Labor representatives wanted shade to be required for all legally mandated rest breaks and lunch periods, not just preventive recovery periods, as well as requirements for provision of additional break periods for rest and recovery from exposure to heat.
- Whether a trigger mechanism was needed in a permanent regulation, and its specific elements if one was adopted, was discussed but no firm agreements were reached.
- There was discussion of employer concerns with the specific requirement for provision of at least two gallons of drinking water per day per employee. Len Welsh clarified that this could be achieved by effective replenishment during the work shift.
- It was generally agreed that a requirement should be added to the permanent regulation that training be provided in a language the employee can understand.
- Start of discussion next meeting to be on emergency medical response requirements of existing Title 8.

## **DETAILED MEETING SUMMARY**

The meeting was opened by Len Welsh, Acting Chief of the Division of Occupational Safety and Health. He said that the purpose of the meeting was to work on the content of a permanent standard for heat illness prevention to replace the emergency temporary standard (8 CCR 3395) that took effect August 22, 2005. He said that the duration of the emergency temporary standard was 120 days but that a second 120 day period would likely be granted by the Office of Administrative Law if necessary to complete the permanent rulemaking. He said that while additional extension periods for the emergency rule could be granted if warranted, we should try to have the permanent rule in place by the end of the second 120 period.

Len Welsh introduced staff present from the Division and the Cal/OSHA Standards Board including Board Executive Officer Keith Umemoto. He noted that at the request of the Standards Board, the day's meeting was a joint undertaking of the Division and the Board.

Len Welsh noted that several groups had brought proposals to discuss and suggested that the meeting could start with their presentations of those proposals and discussion. He said the meeting would then proceed to discussion of the details of section 3395 to review possible amendments to the current language of that section and then look at possible additional areas to address such as emergency medical response requirements.

Len Welsh also introduced a Question & Answer document on section 3395 that had just been released the day before. He said that the purpose of the Question & Answer document is to explain how the Division thinks about the standard so that it can be enforced uniformly statewide and also achieve the purpose for which it was intended. He said the Q&A document was intended to help the regulated public by providing an understanding of how the Division plans to enforce the provisions of section 3395. He said that the document's interpretations do not amount to an "underground" regulation with force of law because they could not be used as authority by the Division in the event of an appeal of a citation by an employer. He said in the event of an employer appeal of a citation, what is law is the standard itself and the rulemaking record, that those would be the basis for argument in an appeal.

He said that the Question & Answer document was something that was open to discussion. He said that it could be helpful with the day's meeting by providing a basis for addressing items in the emergency rule and permanent rule proposal, for example, the question of a trigger for a permanent standard such as the Heat Index and questions about the definition of, and requirements for, shade.

## **AGC PROPOSAL**

Len Welsh offered the floor to Kevin Bland to present a proposal for a permanent rule limited to construction operations put forward by the Associated General Contractors of California (AGC). Kevin Bland said that he was making the presentation in the absence of Marti Stroup Fisher who was not able to attend. He noted that a coalition of contractor groups listed in a cover letter supported the proposal.

Kevin Bland said that the AGC proposal did not have a specific trigger but rather applied generally to prevention of heat illness. He said that since temperatures could exceed 80 degrees Fahrenheit in many parts of the state most of the year it was best to simply have it apply at all times. He noted that existing section 1524 applies to providing drinking water at all worksites at all times. He said that the AGC proposal supplemented the requirement of section 1524 by including a specific requirement for replenishment of the drinking water supply.

With regard to shade, Kevin Bland said that shade is normally present at most construction sites during most phases of work. He said that during concrete and base utility work there is usually an air conditioned trailer at the work site and that once the structure of a project started that provided shade. He said these factors meant that it was clearly not necessary to build a special shade structure at every construction worksite where there could be risk of heat illness.

The final element of the AGC proposal was for employee and supervisor training. Kevin Bland said that training was a key element of any regulation on heat illness. He said it was especially important to help workers and supervisors understand possible personal risk factors for heat illness. He said that employers should not be expected or required to make medical diagnoses or assessments for risk factors for individual workers, but that they should inform workers of what the risk factors are so that they can help protect themselves from heat illness.

There were no questions from attendees about the AGC proposal. Bruce Wick then spoke in support of the AGC proposal. He said that he represented specialty contractors with 90,000 employees. He said that there should be a separate standard for heat illness for construction because most construction operations have shade and also because the existing standard for first aid and emergency response for construction (section 1512) is more detailed and comprehensive than the standards for other industries.

## **WORKSAFE PROPOSAL**

Len Welsh offered the floor to Fran Schreiber who presented a proposal by WorkSafe. She said that while the WorkSafe proposal was longer and more detailed than the AGC proposal and section 3395, it was still mostly a performance based approach, including a requirement for a heat illness prevention program modeled after the Injury and Illness Prevention Program, but with additional guidance as to what was expected, and with some specification requirements critical to heat illness prevention especially at extreme temperatures, some of which were limited by a triggering mechanism such as the Heat Index. She said that in terms of scope it would be reasonable to exclude from coverage most work in buildings with functioning air-conditioning systems.

She said the proposal contained requirements for widely recognized elements of a heat illness prevention program such as provision of drinking water and periods for rest and recovery from exposure to heat. She acknowledged that employer provided and paid rest breaks for prevention of heat illness would be the most difficult part of the proposal on which to reach consensus. She said the proposal also contained a requirement for a communication system to keep track of workers, what she termed a requirement for “no worker left behind,” and emergency medical response requirements similar to those of section 1512 for construction. She said that emergency medical response requirements in Title 8 for all hazards and workplaces needed to be updated, but that the WorkSafe proposal on this was an interim measure that would at least cover emergency response preparation for heat illness. She said that deaths from heat illness were highly related to lack of recognition of symptoms and failure to effectively obtain emergency medical assistance.

She said that the WorkSafe proposal contained more detail in the required training than did section 3395 or the AGC proposal, including for training employees on protections from retaliation for taking safety-related rest and recovery breaks as would be provided by Labor Code sections 6310-6312. Finally she said that the WorkSafe proposal contained a number of non-mandatory appendices with information that could be useful to employers trying to comply with the standard and prevent heat illness in employees.

Len Welsh asked attendees if there were any questions for Fran Schreiber. Bob Downey asked about the basis for timing and provision of rest breaks. Fran Schreiber said that the proposal noted that the schedule for breaks in the ACGIH TLV for heat illness could be used with an adjustment for work in the sun, but that during periods with Heat Index at Extreme Caution levels by the National Weather Service criteria, the proposal called for breaks at least 10 minutes per hour, and during Danger conditions 15 minutes per hour. Bob Downey asked if the break schedules were tied to work load. Fran Schreiber responded that the TLV is work load based, but noted that the employer is not required to use it.

Peter Lupo of AGC San Diego noted that the WorkSafe proposal was longer and more detailed than section 3395 and the AGC proposal. He asked Fran Schreiber if WorkSafe was open to shortening the requirements and making greater use of guidance documents. She said this was possible. She said that while she could not speak for all of organized labor she personally felt that non-mandatory appendices and other materials can in some instances be sufficient as guidance, and notice, to employers of their responsibilities. She said however that some parts of the proposal were needed in regulation to be clear enough to enable effective enforcement.

Juli Broyles of the California Chamber of Commerce said that she applauded AGC for stepping forward and doing the right thing in developing a proposal that will work for construction employers. She asked Kevin Bland if non-union contractors had signed off on the AGC proposal. He said that the residential framing

contractors association which is mostly non-union employers had agreed on the AGC proposal. Bruce Wick said that his group, consisting of both union and non-union contractors, had also agreed on the AGC proposal. Kevin Bland said that AGC is 40% non-union contractors.

Juli Broyles said that there would be lots of opposition from employers to the WorkSafe proposal. She said that it went beyond what Cal/OSHA can get into in terms of regulating temperature exposure and that DOSH had no authority to enforce rest breaks or compensation during breaks in piece rate situations. She said she was uncertain about the communication requirements of the proposal and was worried that the non-mandatory appendices could be used as underground regulations.

## **CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

The next speaker was Larry Crabtree of the California Department of Forestry and Fire Protection. He said that his department was the only California employer to receive a Special Order for prevention of heat illness (Len Welsh later noted that other employers had received Special Orders for heat illness prevention.) Larry Crabtree said that in response to the Special Order CDF had put together statewide policies and local plans to prevent heat illness. He said that the Special Order addressed much of what is covered by section 3395. He said that while CDF does not measure how much water it provides to fire fighters he was not concerned with the water quantity requirements of section 3395 as he was confident they were being met by existing CDF procedures. He was concerned however with shade requirements for remote fire-fighting activities. He said that where all equipment must be carried in by foot, portable shade structures would be likely to be left behind as overly burdensome.

He said that the CDF concept is that all employers, including every wildland fire-fighting agency, should have a heat illness prevention program that included the elements of section 3395 but with an exception for shade in remote locations where it would have to be carried in. He said that every fire-fighting agency's program should include the CDF Special Order element of requiring medical assessment of every employee's risk of developing heat illness. He suggested that section 3410 in Title 8 be amended to require this for all wildland fire fighting.

Larry Crabtree provided a written proposal containing the ideas he discussed. Len Welsh thanked him for his work on this. Len Welsh noted that the concerns he raised about difficulty of providing shade in remote work locations was a problem that had been raised to him by other employers as well, for example for some utility line workers.

Bob Downey asked Larry Crabtree what the impact of the Special Order for heat illness prevention had been on CDF heat cases. He also asked if the Division had evaluated CDF compliance with the Special Order. Finally he asked if the Special Order addresses multi-employer issues. Larry Crabtree responded that with the size of CDF operations it was not possible to specifically evaluate the impact of the Special Order on heat case incidence, but that he believed it had resulted in some positive effects and actions with regard to CDF efforts to prevent heat illness. He said that the Special Order had focused attention on emergency response and how best to respond to heat illness symptoms. He said that with the nature of its operations heat illness has been and likely always will be something that occurs from time to time in CDF. He said the Division had not to date evaluated the impact of the Special Order on CDF operations. He said that while the Special Order does not specifically address multi-employer situations, this is addressed through the master mutual aid agreement that includes all wildland fire-fighting agencies, requiring that each agency provides all personal protective equipment and necessary safety programs for their employees. He noted that incident briefings are required at the start of every fire incident and every 12 hours thereafter, including a safety message which addresses heat illness under hot conditions.

Juli Broyles asked Larry Crabtree about his suggestion that all employers should have a program to prevent heat illness. Larry Crabtree responded that he felt there was an obligation under section 3203, Injury and Illness Prevention Program, for all employers to address risk of heat illness, but that not every employer needed as developed a program as was needed for wildland fire-fighting, and for CDF in particular with the statewide nature of its responsibilities. He noted for example that the CDF program needed to address rapid mobilization of employees from cool areas, and therefore less acclimatized, to hot areas, for immediate hard work, and the need to recognize that less acclimatized workers cannot be as productive immediately as fire fighters acclimatized to work in the hot area. Juli Broyles expressed agreement that section 3203 does create the general obligation for employers to address heat illness.

Len Welsh acknowledged that the discussion was bringing up an important point, that regulating heat illness risk required a rule of general application, but that certain operations could pose special problems. He said it might be necessary to do separate special rulemaking, or exceptions in the rule, for special situations.

## **GENERAL DISCUSSION**

Mark Schacht spoke next from California Rural Legal Assistance. Responding to Juli Broyles' suggestion that the Standards Board could not adopt regulations addressing employee work breaks, he noted that the recently adopted regulation on handweeding operations did assert authority to require such breaks. He said that the Governor's recent veto message of AB 755 regarding compensation of piece rate workers for rest breaks noted the handweeding regulation as covering this issue. He said it was necessary to address the question of pay for breaks under compensation systems such as piece work. He said this was especially an issue in agriculture and garment manufacturing, and that it related to payment for the preventive recovery period in section 3395. He said compensation for breaks was not an issue for hourly workers as they are paid during break periods other than lunch.

Len Welsh noted that whenever the issue of breaks is considered, pay for those times is always an issue. He said that Cal/OSHA doesn't normally get involved in pay issues, but that the Bendix decision with regard to employer pay for personal protective equipment might have relevance. He said that the Bendix case was at the intersection of safety and pay issues.

Mark Schacht said he thought the Division would have to respond to this issue as some employer pay systems such as piece rate might not provide pay during the preventative recovery periods required by section 3395.

Jim Abrams of the California Hotel and Lodging Association said the issue being raised by Mark Schacht carried over into the arena of employee pay when the employer provides medical treatment for workplace injury or illness.

John Robinson, California Attractions and Park Association, said that some employer operations are at high risk for heat illness but that theme parks have many control measures such as misters and cool break areas, including for employees working outside and therefore covered by section 3395. He said that much of the work in theme parks was not as severe as in construction and agriculture and that theme park employers shouldn't be penalized simply because their employees work outdoors. He said that requirements for rest breaks would place staffing pressures on theme park employers because they cannot simply shut down amusement rides. He said the Division needed to take account of control measures and worksite conditions at theme parks.

Len Welsh responded that section 3395 applies when environmental risk factors are present. He noted that the just-released Question & Answer document addressed the issue of assessment of risk in specific locations or microclimates. He said that John Robinson's comments highlight that there are many different ways to control heat illness risk.

John Robinson said his concern was that he did not want a trigger for the permanent rule to be based on weather conditions in an entire region. Len Welsh acknowledged the concern and said he did not anticipate any trigger being limited to just regional conditions.

Angie Wei spoke from the California Labor Federation. She said that the permanent rule needs to cover indoor workers as well as those working outdoors. She said the easiest way to accomplish this was simply to strike “outdoor” from the scope of section 3395. She also said the permanent rule should require employer documentation of their procedures for control of heat illness risk, for example employers should be required to describe how and when they will provide shade based on a reasonable assessment of heat illness risk, and that this would also cover the situation when shade was not reasonably feasible. She did not think it was productive to try to develop different standards for different worksites or to have exceptions for specific operations. She also said that a requirement for rest periods was very important for heat illness prevention. She said that discussions with workers on proposed modifications to California lunch break rules found much intimidation of employees by employers had been alleged. So it was therefore important to require that employee training on heat illness require that employees be explained their rights to preventative recovery breaks and other rest breaks without fear of reprisal.

Jim Abrams said that he was looking for data to better understand the risk of heat illness faced in hotels, laundries, etc. Angie Wei said that she could provide such information. She noted the occurrence of a recent heat-related death in a hotel laundry in Texas. She noted that laundries, including those in hotels, have heat and humidity, and may be inadequately ventilated, with employees working on piece rate or at a machine-driven pace.

Jim Abrams acknowledged that there are some employers who don’t comply with requirements for employee breaks but that the vast majority of employers do comply and take their employment responsibilities seriously. He said that the proposed debate over modifications to lunch break rules were mostly the result of frivolous claims and lawsuits over recording issues.

Len Welsh urged participants to be respectful of the discussion and other participants. He said he did not want the meeting to focus on the lunch break issue which is a separate labor law matter under discussion elsewhere, but acknowledged the meeting would need to address the rest break issue for heat illness.

Angie Wei reiterated that in terms of existing rights to breaks and lunch, all that is being asked for is that training be provided on employee rights with respect to breaks, compensation, and retaliation.

Don Milani of the Associated California Loggers asked if anyone had looked at information available from the U.S. military on heat illness prevention. Fran Schreiber and Len Welsh both responded that the military was a good source of detailed technical information on heat illness prevention.

Samantha Turner of Collishaw Enterprises said that the key to success was specifics of the regulatory language. She said discussion of proposed lunch break changes was a distraction, that it was important to focus on periods for recovery from effects of heat exposure.

Len Welsh announced the lunch break and said that after lunch the discussion would begin with scope of the permanent regulation.

## **LUNCH BREAK**

Resuming after lunch, Juli Broyles asked about statistics on heat illness that were provided as the basis for the emergency standard. Len Welsh asked Bob Barish to respond to this. Bob Barish said that four sources of statistics had been looked at: DOSH incident investigations, BLS/DLSR statistics on nonfatal days away from

work cases, Workers Compensation Information System (WCIS), and Workers Compensation Insurance Rating Board. Of these he said that DOSH investigations and WCIS statistics were the better sources.

Bob Barish noted that from 1995 through 2004 there had been nine Division investigations of heat-related incidents in construction with two being fatalities. He reported that for the same period for agriculture there had been 17 investigations with nine fatalities. He said there had also been two CDF fatality cases (in one case the employee was a county fire fighter working with CDF in a mutual aid arrangement) and two fatality cases in manufacturing, both related to ambient rather than process heat.

Bob Barish said that the WCIS had recorded between 300 and 350 claims for “heat prostration” in each of the years 2000 through 2004. He said the claims were from a wide range of industries and occupations and provided details of the numbers in the major industry codes.

William Jackson of Granite Construction asked how these numbers translated into incidence rate, in terms of the number of hours worked and asked how this compared to the incidence rate, for example, for struck by vehicle incidents. William Jackson suggested that the incidence rate of heat cases was very low and did not establish a basis for necessity of regulation. Jason Schmelzer asked about the relative risk of heat illness in the WCIS versus other injuries and illnesses and suggested that the numbers indicate that heat illness is not a significant problem warranting additional regulation of employers.

Len Welsh said that particularly with the limitations of reporting, case statistics alone could not be the basis for the presence or absence of necessity to satisfy the requirements of the Administrative Procedures Act. He said that the Division would provide an update on heat case statistics at the next meeting.

William Jackson said regulations can only be adopted based on facts, and that in light of the case statistics presented he thought the provisions of the emergency regulation go far enough. He said that to satisfy the Administrative Procedures Act necessity had to be clearly demonstrated.

Vince Lamaestra said that the fatality statistics suggest that agriculture might warrant a vertical standard as employees in that industry are obviously afraid of their bosses.

Steve Johnson said that the relatively small number of cases in WCIS for agriculture might indicate that many agricultural employers are not carrying Workers Compensation Insurance.

Jim Abrams asked if it was possible to get details on WCIS claims, for example the four claims reported in the hotel industry in 2003. Len Welsh responded that the Division will look into this but that it can be difficult to get detailed information on claims.

Bob Downey asked why only California Department of Forestry and Fire Protection had received a special order. Len Welsh responded that in fact other employers had received them for heat and that sometimes DOSH responds with a mix of regulatory citations and a Special Order.

## **SCOPE**

Lee Sandahl, International Longshoremen and Warehousemen Union, supported application of section 3395 to all workplaces including indoors. He noted that ILWU members work in a borax mine where temperatures in the raw processing shed can reach 112 degrees Fahrenheit.

Len Welsh asked others to comment on the scope issue.

Jim Kegebein representing Rudolph & Sletton said that he had worked in hot industries such as steel manufacturing and nuclear industries where temperature extremes were common and the need for controls well-recognized.

Len Welsh said that where heat is a well-recognized and more or less constant industry condition such as in those places mentioned by Jim Kegebein, section 3203 might be enough, though it does not provide any guidance on what employers need to do. However he said that in such “hot industries” control methods were generally well known and widely applied. He compared that with agricultural workplaces where heat illness control measures did not appear to be well-recognized. With respect to indoor workplaces, he thought that restaurants might be an example where heat exposure was not so extreme that control measures were widely applied, but that risk of illness may still exist.

Marcie McClean of the United Food and Commercial Workers Local 870 said that with increasing energy costs, employers were reducing air conditioning thus increasing heat illness risk. Therefore she thought the regulation should address indoor workplaces.

Anne Katten of CRLAF said that Belinda Thielen of UNITE-HERE was not able to attend the meeting but asked her to convey that UNITE-HERE felt that hotel and other laundries needed to be covered. Fran Schreiber echoed this sentiment for Jason Oringer of UNITE-HERE regarding application to restaurants.

Len Welsh noted that as suggested by William Jackson, necessity would have to be shown for those workplaces, that necessity was more easily established for construction, agriculture and other outdoor occupations given the large number of possible incidents reported to DOSH in the summer of 2005.

Fran Schreiber said she believed that the references in the ACGIH TLV for heat were sufficient to support necessity for application to indoor work. She said she did not think that regulatory necessity was determined only by a count of the numbers of cases of illness. Len Welsh agreed, saying that while even one case of illness or death was too many, it was important to look at what is reasonable to prevent illness and injury.

Juli Broyles responded that the Labor Code requires that data and experiments be used to show the level of risk. She agreed with others that where there is air conditioning the regulation should not apply.

Kerry Lee of the California Restaurant Association said that the California Retail Foods Facilities Act requires 100 percent make up air in restaurants. She acknowledged though that restaurant workplaces can be hot at times.

Len Welsh said that if scope could simply be limited by presence of air conditioning it would be easy to exclude those workplaces, but that sometimes the air-conditioning is turned off or is not effective.

Len Welsh asked proponents of application to indoor workplaces to come prepared to the next meeting with information to support this position.

Martha Guzman of the CRLA said that with a reasonable trigger based on Heat Index not every hotel or restaurant workplace would have to be covered, only those that exceeded the trigger level.

Len Welsh said that the AGC proposal’s lack of a specific trigger is aided by the fact that its requirements are not extensive in nature. He said that as more specific requirements are added then scope and trigger become more important. He stressed again that proponents of indoor coverage needed to come prepared to the next meeting to make their case.

Jason Schmelzer said that anecdotal evidence from a small number of employers doesn't establish necessity for a burdensome regulation.

Angie Wei applauded the AGC proposal for its unlimited scope of application, but acknowledged it was only possible because of its minimal requirements.

Vince Lamaestra said that PMA members were already doing what section 3395 required in hot locations such as the ports of Stockton and Sacramento. He said he thought that the current requirements of section 3395 are reasonable and acceptable.

Juli Broyles said that if a worker was experiencing dizziness due to heat or anything else a responsible employer would take them off of work and send them home, or at least provide a preventive recovery period.

Len Welsh said that the required preventive recovery period in section 3395 is not intended to be just in response to symptoms of potentially advanced heat illness such as dizziness but also as a preventive measure if the employee feels they need it. He said this was important to prevent more serious heat illness.

### **EVALUATING RISK FACTORS AND TRIGGER**

Len Welsh moved off of scope to the next subject of how to evaluate environmental risk factors to determine if the regulation applies.

Dan Leacox representing Disney said that his client was one of the very specialized types of operations that Len Welsh had referred to earlier as recognizing and taking steps to control heat illness. Len Welsh said that such employers should track what is planned for the permanent regulation and let the Division and the Board know if what is proposed is a problem for them.

Don Milani asked if a Heat Index of 80 for example is used as the trigger for requirements would that then mean that if it is 78 nothing has to be done. Len Welsh said that was a good question and asked what others thought of such a "bright line" trigger. Jon Frisch said that even when below such a trigger other requirements such as water and emergency medical response would still apply.

Juli Broyles said she was concerned that the discussion of Heat Index in the Question & Answer document could be used as an underground regulation. In response Len Welsh asked again if the permanent rule should have an environmental trigger such as the Heat Index or some other "bright line." Juli Broyles responded that the permanent rule should be the same as the emergency version. She said that National Weather Service Heat Index warnings were based on risk to compromised individuals such as the elderly and ill and should not be the basis for triggering additional heat-related protections.

Bob Downey said that he favored a bright line trigger and noted that even the AGC proposal referred to "under conditions of extreme heat" in a training requirement.

Larry Crabtree said that a bright line trigger would force the employer to prove they were below it in order to show they were in compliance. Len Welsh said that the burden of proof of application of a standard in enforcement activities is on DOSH. Larry Crabtree said that with CDF work environment changing so frequently they would probably just always assume they were covered.

John Robinson said that the origin of the emergency standard was the unusual number of possible heat-related incidents in the summer of 2005, mostly in agriculture and construction. He said that if a trigger was set to prevent serious cases in those industries it would be unreasonably low for theme parks, especially if it resulted in a requirement for additional rest breaks.

Bruce Wick said universal application of minimal requirements as in the AGC proposal was preferable to more burdensome but triggered requirements as construction employers often have multiple crews at different locations and it would be troublesome to try to determine what would apply at each location.

Jim Abrams said that even if there are other existing regulations relevant to heat illness, such as for drinking water, it is helpful to have another specifically for heat illness that highlights and reiterates those requirements. He suggested that a trigger approach would be appropriate for additional requirements beyond what is currently in the emergency standard 3395. Jon Frisch agreed with this, saying a trigger was not needed for the minimal requirements of the emergency standard.

Fran Schreiber said that the WorkSafe proposal in trying to balance specific guidance for those who needed it with a general requirement for all, took the approach suggested by Jim Abrams, with some requirements for all workplaces, and additional requirements such as rest breaks only for clearly higher risk situations, eg. based on Heat Index. She said this was appropriate as breaks are one of the most difficult issues so they couldn't simply be required of all employers without some limiting trigger mechanism.

Carl Borden with the California Farm Bureau Federation said there are too many environmental risk factors for heat to set a single bright line trigger, and there is the workload variable as well.

## **DEFINITION OF SHADE**

Juli Broyles asked about metal sheds, if they were indoors or outdoors and if doors opening to the outside would satisfy the requirement for shade. Len Welsh responded that this is addressed in Q&A 7, the key point being that the purpose of the requirement is that the preventive recovery area provide some significant relief from environmental heat comparable to shade.

Jason Schmelzer asked about the last two sentences in Q&A 7 regarding the shade area allowing for normal posture. Len Welsh responded that this was to make clear that the shaded area under a vehicle or equipment trailer, requiring an employee to lie underneath it, is not acceptable both from the point of difficulty of access and also the safety risk. He said the key here was that use of shade not be discouraged by a need to contort the body to use it. Juli Broyles said that the language on posture suggested that special seating might be required rather than allowing sitting on the ground. Len Welsh responded that was not the intent. He said that suggestions for better wording for any part of the Q&A were welcome.

Kevin Bland said that the definition for shade in the AGC proposal was better than that in the emergency standard because it allowed for any measure that could provide relief from heat, not just shade. Len Welsh said that this approach could allow for netting that might only minimally block the sun. Kevin Bland said that no, for example, four inch mesh would not be acceptable but that significantly smaller mesh might. Len Welsh said that incomplete blockage of the sun let in significant amounts of radiant and so was not acceptable for the preventive recovery area. Carl Borden said the emergency standard and the Q&A document did a good job of explaining the shade requirement. He suggested that mesh might improve circulation by allowing heat to rise out of the area. He also suggested that sometimes heat might be so severe that more than shade was needed for the preventive recovery area to be effective. Len Welsh said that shade always helped but agreed that it may not always be enough for the preventive recovery area to be effective.

Jim Abrams agreed that the Q&A explanation of shade was helpful. He suggested that the language on normal posture should be added to the language of the regulation itself along with an explanation that no special furniture was required.

James Fitzpatrick of the Motion Picture Association of America said that member companies in his association often use netting of various mesh sizes to control lighting and this provides some shade relief. He asked if this would satisfy the requirement. Len Welsh said that it probably would not be sufficient. He said that shade for the preventive recovery break area needed to provide maximum reasonable cooling by effectively blocking the sun.

Samantha Turner said that it is key to remember that no “one size fits all” approach will work for everyone. She said it was important to find consensus on what was critically important for heat illness prevention and not be distracted by minor issues.

Len Welsh acknowledged that the discussion to this point had been difficult but that it had also been helpful to him to understand everyone’s concerns.

Peter Lupo said it was important to effectively train employees on the requirements of the regulation. He suggested that if the only problem with the AGC proposal definition of shade is that it allows for netting then he suggested that be left out. He said what was needed was something that would work, not what was easiest for DOSH to write citations on.

Samantha Turner said that there are at least five products on the market at reasonable prices that combine misting with shade. Len Welsh said he appreciated examples of readily available control measures.

Derrick Jarvis of Gallo Winery said that the emergency standard suggests that only an artificial shade structure was satisfactory but that the Q&A document suggests that trees could be acceptable. He said he raised this because some grape vines might be big enough to provide reasonable shade while others would not. He suggested adding the Q&A language on trees and shade to 3395. Dan Leacox agreed on this point.

John McCoy of Lakeview Professional Services, primarily a construction employer, suggested that “blockage of the sun” be added to the definition of shade in the AGC proposal. He noted that there had been two deaths recently in the 125 degree heat in the southern California desert. He said that with this level of heat his plastering crews had a shaded misting area running all day and employees took breaks whenever they needed to in order to keep cool.

Len Welsh said it might be appropriate to mention misting as a control measure in the permanent standard.

Dan Leacox questioned the reference to the shadow “test” in the definition of shade. He said it really was not enforceable. Rhyanne Truax of Shasta Builder’s Exchange agreed. Len Welsh said that while the shadow “test” may not define the border between being in and out of compliance, it does define for the employer what clearly is in compliance which is what an employer would presumably want, that is, to be well away from the border of being out of compliance.

William Jackson suggested that the sentence after the reference to the shadow test regarding the shaded area being inadequate when it is hotter was not necessary and was confusing. Len Welsh said its purpose was to provide for blockage of sunlight without creating another heat hazard, but acknowledged the language could be improved.

Jay Weir of SBC Communication asked if the requirement for the preventive recovery area could allow for other effective cooling devices instead of shade. Len Welsh said this could be considered if specifics were provided. Anne Katten said that it was acceptable to look at other cooling mechanisms but that a requirement for shade needed to be retained.

Kevin Bland suggested alternative language using the word “substantial” rather than “complete” blockage of shade such as: “Shade is a location that provides relief from heat by providing substantial blockage of sunlight so as to assist the body to cool.” Len Welsh thanked Kevin for that and suggested that he and anyone else with suggested language changes write them up and send them to him.

Don Milani asked how accessible shade has to be, i.e. 10 minutes, 15 minutes? Len Welsh said that with the purpose of the requirement for shade being for the preventive recovery period area, that it must be immediately available. He noted though that in some situations such as wildland fire-fighting operations there may be a few times when that is not feasible. Don Milani responded that if there is no specific guideline on accessibility then it will depend only on the judgement of the DOSH inspector. Len Welsh asked him to provide suggested language that might address his concern.

## **DRINKING WATER**

Len Welsh then moved the discussion onto 3395 subsection (c) for drinking water. He asked if there were any comments on the requirements of the emergency standard.

John Robinson said that for theme parks the quantity requirement of at least two gallons per employee per day is a problem. Len Welsh said that this should not be an issue for employers relying on plumbed water supplies where quantity is virtually unlimited, noting that it is intended to assure provision of sufficient quantities of water where provided from portable containers rather than plumbed sources. Len Welsh suggested that language might be added to the beginning of the subsection “In the absence of a plumbed water supply...” to clarify this point. Juli Broyles suggested taking the language from the start of the second paragraph in Q&A 6 “Where unlimited drinking water is not immediately available from a plumbed system....”

Dave Puglia, Western Growers, said that irrigation workers can sometimes be far away from field sanitation facilities where drinking water is normally provided. Len Welsh said that in such a situation the main compliance issues would be accessibility to the drinking water and replenishment of supply.

William Jackson questioned the necessity for stating a requirement for at least two gallons of water per employee per day. He asked why this language was needed, at least for construction, when section 1524 requires provision of “adequate” quantities of drinking water. Len Welsh responded that recommendations from many recognized sources, medical literature, Centers for Disease Control, all say that to control risk in extreme heat workers should drink three to four cups of water per hour to replace lost fluids. So the question is not what is the appropriate quantity to require but rather what level of detail is needed to provide effective guidance to employers to ensure they understand that they need to provide substantial quantities of water during work in heat.

William Jackson responded that he doubted that many workers ever consumed two gallons per day and reiterated that he felt the language of section 1524 was sufficient guidance. Len Welsh noted that the Division’s field experience in inspections and consultations has shown that employers sometimes don’t recognize how much water is needed during work in heat, or don’t realize how not being aggressive in keeping supply replenished can inhibit worker consumption and thus negate an essential and basic element of heat illness control.

William Jackson responded by asking Len Welsh to provide the citation history to support his statement and the basis in necessity for the drinking water quantity requirement. Len Welsh responded that citation history alone is not a basis for necessity. William Jackson responded that if the heat cases being investigated were shown to be due to lack of water or shade then he had no problem with specific requirements for those elements.

Bo Bradley of Associated General Contractors said that two gallons water consumption per day for heat illness prevention is an average based on body weight, she thought 230 pounds. Therefore, she said few people will drink that much water. Len Welsh responded that the requirement is not to force drinking of two gallons per day, only that it be readily available.

Tara Hoss of the Engineering and Utility Contractors Association said that most workers in her industry bring their own cooled water supply. She said that the key in the regulation would be to require accessibility to “adequate” quantities of water. She said it can be hard for a contractor to provide at least two per employee per day. Len Welsh pointed out that the language of section 3395(c) allows for replenishment, which means that a large supply is not necessarily required at the beginning of the shift, only that water be constantly available throughout the shift to allow drinking of up to one quart per hour for heat illness control.

Len Welsh said it sounded like the quantity requirement of at least two gallons of water per day was confusing or of concern to some employers. Dave Puglia just said maybe it would help to clarify that employers can start the day with, for example, a quart per employee on hand (e.g. one gallon at start of shift for four employees, and then active replenishment).

Anne Katten said that her group frequently sees employers running out of drinking water before the end of the workshift. She said that the two-gallon per day requirement was essential to ensuring that employers had clear guidance as to how much water needed to be provided to employees throughout the day to address risk of heat illness.

Bob Downey said he was concerned with which employer had to provide water on multi-employer worksites. He said that wording of the requirement should clarify this. Len Welsh said that this was a difficult item and asked for suggested language from attendees.

Jay Weir asked if the language of subsection (c) required employers to document their individual efforts to encourage frequent water consumption during work in heat. Len Welsh responded that the key item for compliance with this requirement is documentation of training and procedures encouraging consumption and ensuring continual and easy access to drinking water.

Barry Bedwell of the California Grape and Tree Fruit League asked if water supplies that employees bring to work could be a factor in judging compliance with the standard. Len Welsh said that while employees’ own water can be a helpful supplement, it cannot be a factor in judging employer compliance because water provision is a responsibility of the employer. Employer compliance will be judged on the basis of a solid and reliable procedure for ensuring employees are provided with water in quantities needed to reduce risk of heat illness.

## **ACCESS TO SHADE**

Len Welsh then moved the discussion onto subsection 3395 (d), Access to Shade. Samantha Turner said that the AGC proposal goes beyond section 3395 by requiring a means of providing shade be readily available at all times. Len Welsh said he did not understand the effect of this additional language in the AGC proposal. Kevin Bland said that this language helped mobile construction operations by clarifying that a shaded area did not have to be erected at all times, just that the means to provide it such as a tarp and tent-poles, did need to be immediately available.

William Jackson said that the Q&A document suggested that shade is stationery in the workplace. But his company’s road building operations can move at one to three miles per hour. So the AGC language that “a means of providing shade be readily available” was helpful to his company’s type of operation.

Len suggested attendees send him any additional language or thoughts they had on this matter.

Dave Puglia asked if a tarp draped over two rows of grape vines could serve as shade. Len Welsh said that this sounded like it could be acceptable if it provided effective sun blockage and did not require unusual posture to use.

Georgina Mendoza of CRLA said that in addition to preventive recovery periods, shade areas should be required for rest breaks and lunch when working in heat. She said that unlike construction operations described earlier which frequently have inherent shade areas, agricultural fields are often bare of any structures or trees that might provide shade. Len Welsh asked if misting as suggested by a number of attendees might be a reasonable alternative to shade. Georgina Mendoza said that it might be a good supplement but that it was not a substitute for shade. She also said that that with respect to availability shade should be immediately accessible, in one minute or less.

Emanuel Benitez CRLA said that where he works, in the Coachella Valley, most of the year area it is over 90 degrees Fahrenheit and frequently over 100 degrees. He said in these conditions workers seek any available shade including under tractors, trucks, and trailers. He showed photographs of workers seeking shade under a trailer of irrigation pipes.

Steve Johnson said that Georgina Mendoza's comments on shade support the construction industry contention of the need for a separate standard since as she noted, most construction sites have shade.

Barry Bedwell said that many agricultural workplaces do have shade. He said that agriculture should not be separated out as being at special risk for heat with a different regulation.

Dave Puglia said that Western Growers members were comfortable with the language of section 3395 for shade because most already are in compliance. While acknowledging the potential benefits for heat risk control, he questioned the feasibility of a requirement for shade for rest breaks and lunch periods for entire work crews. He said that many growers during hot periods work to control heat risk with earlier start times, shorter workdays, etc.

Kevin Bland said that construction employers also often use earlier start times and shorter workdays during hot times of the year. He said that the purpose of the standard was heat risk control not rest breaks.

James Fitzpatrick said he had heard several references during the meeting to Imperial County, which is the hottest part of the state. He said it was not right to have regulations for heat based just on the worst case. He said that a geographic approach to scope of the regulation might be effective.

Len Welsh said that the regulation had to address the reasonable worst-case situation.

Martha Guzman of CRLA said that it had been generally agreed previously that a geographic approach would not be effective. She noted that with consistently hot temperatures over most of the year her group had seen greater attention given to heat illness risk in the Imperial Valley area than in other areas of the state where exposure was more seasonal in nature. She was particularly concerned with heat risk in areas where it might not be so continuously hot, where control measures were possibly more likely not to receive continuous adequate attention. She said that language requiring shade for rest and lunch periods should be conditioned on being "if possible" not just "if feasible." She said that various available portable shade structures mentioned in earlier discussion, beach-type umbrellas etc., should make shaded break areas "possible" in almost all situations. This could address the concern with work in some remote locations away from roads where it really might not be reasonably possible to provide a shaded area for breaks for large work crews.

Len Welsh said it would be helpful if proponents of shade for all rest breaks and lunch periods during work in heat could articulate how they thought employers could comply with such a requirement, that is, what would be substantial minimum compliance, especially in open fields where there are no potential sources of shade. And on the other hand employers should articulate problems they see with such a requirement or that they have had in trying to do this.

Len Welsh said that with regard to the pay issue raised in the morning by Mark Schacht, he thought it would be good to have some discussion of the entire issue of pay for recovery periods and how that should be addressed.

Martha Guzman said that the Standards Board and the Governor in his announcement of the emergency standard were clear that the preventive recovery period was to be paid. Len Welsh acknowledged this and narrowed the focus to pay for those on piece rate compensation as raised by Mark Schacht.

Carl Borden said that yes the preventive recovery period would be paid as hours worked just like required rest breaks under current labor law. He said that preventive breaks would be likely to be short, under 30 minutes, and so could not be viewed as time when employees could pursue personal business, which is the basis for the legally mandated lunch period not being required to be a paid break. He said further that existing law provides for overall compensation of piece-rate workers at least at the level of the legal minimum wage over a pay period such as one week or in some cases even one hour. Thus he said that while piece-rate workers may not be directly compensated for break periods, they are guaranteed a minimum level of pay regardless of breaks taken. He said that employees can choose to work through their break periods if they want. He said he doesn't think the Cal/OSHA Standards Board has the authority to address pay issues.

Len Welsh agreed that pay issues would be a new area for the Board to address directly. He said that current medical removal requirements for example for inorganic lead do address pay issues so the Board's taking up a safety-related pay issue would not be entirely unprecedented. Carl Borden responded that medical removal provisions for lead and other substances were all based on Federal OSHA standards the state is required to adopt.

Martha Guzman said the issue is not pay differentials between hourly and piece-rate work. She said that in at least two heat-related deaths in summer 2005 in agriculture, piece-rate work or machine-paced work played a role.

Carl Borden said that AB 755 and the WorkSafe proposal suggest that piece-rate workers would be entitled to compensation for breaks even if they were not taken. He said these proposals therefore provided no additional incentive for workers to take breaks for safety purposes.

Dave Puglia said that some of the issue might be able to be addressed through supervisor training requirements.

Anne Katten said she appreciated employer groups' acknowledgment of the importance of shade for break periods. She said that a Heat Index based trigger for shaded breaks 10 minutes every hour or 15 minutes every hour as discussed in the WorkSafe proposal would limit the requirement to those times and workplaces where it was truly needed as a heat illness prevention measure and thus was not overly burdensome.

Martha Guzman expressed concern that while the required recovery period is named and intended to be "preventive," there is a problem that some employees requesting it should probably be receiving medical treatment.

Len Welsh agreed with this point and said this was possible. He said it was important to try to clarify for employers, and for employees, those circumstances in which obtaining immediate medical treatment was

needed, rather than just a recovery break period. He said that effective in-house first aid response was key, that a trained first aider could contribute to appropriate decisions on when to seek medical treatment.

James Firzpatrick said that sweating by itself is not a sign of heat illness that necessarily warrants a preventive recovery break period.

## **TRAINING**

Len Welsh said he did not think there were major issues with this and if there were they could be discussed at the next meeting. Georgina Mendoza asked that a requirement be added to the permanent rule that training be provided in a language understood by the employee. There was general agreement to this proposal.

Martha Guzman said that the permanent regulation should make reference to first aid training.

Carl Borden noted the language in Q&A 10 for a person to contact emergency medical services when workers cannot do so themselves. He supported this and the other language in Q&A 10 on training for emergency preparedness being incorporated into the permanent regulation.

## **EMERGENCY MEDICAL RESPONSE**

Len Welsh said that Carl Borden's comment led into the fact that it was still necessary to look into possible changes in the regulations for emergency medical response preparation.

Bob Barish passed out copies of the first aid and emergency response standards for construction, general industry, and agriculture (Title 8 sections 1512, 3400, and 3439 respectively).

Carl Borden asked if this discussion could be held for the next meeting as he had not reviewed these sections. Len Welsh agreed and said that emergency medical response preparation would be the first item for discussion at the next meeting. He also said there would be discussion of the question of whether section 3400, first aid and medical response for general industry, also applied to agriculture.

**END**