

**Cal/OSHA Advisory Meeting  
Heat Illness Prevention in Indoor Places of Employment  
Thursday, May 25, 2017  
Ontario, CA**

Welcome: Steve Smith, Principal Safety Engineer, Cal/OSHA  
Meeting Chairs: Eric Berg, Steve Smith, Corey Friedman, Amalia Neidhardt  
Notes: Grace Delizo, Susan Eckhardt

**MEETING ATTENDEES**

<u><b>NAME</b></u>	<u><b>AFFILIATION</b></u>
Hector Aguilar	Int'l Longshore & Warehouse Union (ILWU) Local 26
Matthew Allen	Western Growers Association
Veronica Alvarado	Warehouse Worker Resource Center (WWRC)
Jerry August	United Steelworkers (USW)
Alice Berliner	SoCal COSH
Joel Berman	Health Science Assoc.; Calif. Industrial Hygiene Council (CIHC)
Brian Bigley	Lehigh SW Cement
Kevin Bland	Ogletree Deakins/California Framing Contractors Association (CFCA), Western Steel Council (WSC), Residential Contractors Association (RCA)
Jeremy Blasi	Unite Here Local 11
Jeff Brown	Pacific Maritime Assoc. & Eagle Marine Services
Rebecca Brown	Medline Industries
Daniel Bustos	Continental Labor & Staffing Resources
Rosalia Candelaria	Milgard Manufacturing
Silvia Carrillo	
Jamie Carlile	So. Cal. Edison
Miguel Castro	Teamsters
John Cartwright	
Sophia Cheng	Restaurant Opportunities Center
Deogracia Cornelio	UCLA – LOSH (Labor Occ. Safety & Health Program)
Mercedes Cortez	Garment Worker Center
Paul Costa	The Boeing Co.
Raul Covarrubias	Wilbur Ellis Co.
Chris Dalphy	AT&T
Kushan Dasgupta	
Larry Davenport	Caltrans
Katherine Dumangas	
Coil Dunn	City of Los Angeles
Tim Egbert	Wilbur Ellis Co.
Marti Fisher	California Chamber of Commerce
Hector Flores	UCLA - LOSH
Miguel Garcia	USW
Miriam Garcia	WWRC
Maricela Gomez	Contract Services Administration Trust Fund (CSATF)
Victor Gonzalez	WWRC
Luisa Gratz	Int'l Longshore & Warehouse Union (ILWU) Local 26

Frank Guercio	Waste Management
Danilo Gutierrez	Pactiv
Steven Hatch	WWRC
Blanca Hernandez	Garment Worker Center
Dana Horne	Calif. Dairies, Inc.
Kathy Hoang	Restaurant Opportunities Center (ROC)
Sheri Hummel	Waste Management
Bruce Jefferson	WWRC
Nan Jiao	UCLA Industrial Hygiene graduate student
Manuel Jimenez	Sherwin Williams
John Kanyan	Milgard Manufacturing
David Kernazitskas	Cal/OSHA Standards Board (OSHSB)
Sheree Kinzel	
Adam Kotin	Wine Institute
Lawrence Lan	Restaurant Opportunities Center - LA
Angelica Lopez	UCLA
Nick Magaña	So. Cal. Edison
Carlos Maldonado	California Rural Legal Assistance (CRLA)
Luis Martinez	WWRC
Brian K. Miller	Rudolph & Sletten; CEA
Janet Moreno	Galasso's Bakery
Michael Musser	California Teachers Association (CTA)
Meghan Neal	3M; Calif. Construction and Industrial Materials Assoc. (CalCIMA)
Rob Neenan	Calif. League of Food Processors
Vina Nguyen	UCLA
Shig Noguchi	USW
Jose Olivera	CRLA
Zacil Pech	Garment Worker Center (GWC)
Jose Pedroza	WWRC
Celene Perez	WWRC
Perry Poff	Peterson Law Corporation
Nick Powell	Granite Construction
Alka Ramchandani	Jackson Lewis PC
Mike Rehor	Pactiv
Nicole Rice	Calif. Manufacturers & Tech. Assoc.
Kevin Riley	UCLA – LOSH
Patricia Riza	UCLA – LOSH
Javier Rodriguez	Teamsters
Maria Rodriguez	EI Super
Veronica Rojas Munoz	Power-Tech Engineers
J. Rosillo	Wegis & Young Property Management
Rania Sabry-Daily	UCLA – LOSH
Lee Sandahl	Int'l Longshore & Warehouse Union (ILWU)
Manuel Saucedo	Senator Connie Leyva
Mitch Seaman	California Labor Federation
Bart Selsted	Galasso's Bakery
Tim Shadix	Worksafe
Pat Singh	Albertsons
Zeynep Sisli	UCLA IRLE/LOSH
Sarah Tan	UCLA
JC Tellez	Galasso's Bakery

Debra Temple	Mallory Safety & Supply
Kevin Thompson	Cal-OSHA Reporter
Alma Trejo	CA Works Foundation
Anthony Vallecillo	Teamsters; WWRC
Richard Warner	ORCHSE Strategies
Jay Weir	AT&T
Bruce Wick	California Professional Association of Specialty Contractors (CALPASC)
D'Wayne Wilson	WWRC
Gil Wong	CA Dept. of Corrections & Rehabilitation (CDCR)

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**Steve Smith**, Principal Safety Engineer, welcomed attendees. He explained that the purpose of this meeting is to receive input on the workplace indoor environment Heat Illness Prevention revised discussion draft.

Steve stated that this is the second meeting and that the initial meeting was in February in Oakland. We appreciate the City of Ontario allowing us to use their facilities today. This meeting's location offers stakeholders in Southern California the chance to provide advice on a proposed standard for preventing heat illness in indoor work environments. Steve introduced panel members from Cal/OSHA, Corey Friedman, Division attorney, Deputy Chief for Research and Standards Eric Berg, and Research and Standards Health Unit staff, Amalia Neidhardt, Grace Delizo and Susan Eckhardt. For the minutes, when you provide comments, please give your name and affiliation. For those not familiar with the process, the advisory committee is used to develop health standards. Stakeholder input is essential, and the initiating legislation requires that this rulemaking be developed by using the advisory meeting process and that a proposed regulation be provided to the Occupational Safety and Health Standards Board. The board then takes the proposal through the formal rulemaking process, including soliciting comments. There will be a 45-day comment period, a public hearing, and the Board is ultimately the adoption authority.

A short break was taken at this point to set up chairs for additional attendees who arrived.

The meeting resumed, and Steve repeated his introduction. In February, there was an initial discussion draft and many comments were received. In response, the discussion draft was significantly revised. He reminded attendees to sign in on the sign-in sheets, and include their e-mail addresses so they will be notified of upcoming meetings. He also noted that comments are being sought on the discussion draft, on both technical and feasibility issues, along with other concerns people might have. The proposal is being developed in response to legislation that requires that a regulation for preventing heat illness in indoor places of work be developed. It provides flexibility in how to do that, but essentially requests that the latest scientific information from the American Conference of Governmental Industrial Hygienists Threshold Limit Value (ACGIH TLV) to prevent heat illness, and the National Institute of Occupational Safety and Health (NIOSH) guidelines, be considered. Using that guidance, along with input received at the first meeting, this discussion draft regulation was revised. Additionally, there is an existing heat illness standard for outdoor workers that has been in place for the past 12 years. Some of the provisions and concepts of Section 3395 have been included in this discussion draft. There are some parallels, but there are also some unique issues for indoor places of employment.

As the agenda lists the different subsections of the standard, if there are comments specific to the language on a particular aspect of the standard, please hold those comments to that point and then provide your comments on that subsection.

For resource materials, our webpage has a copy of this discussion draft, the agenda, all the handouts, and the previous version of the draft. Also, for those who want to know the next steps, after the advisory process is completed, the documents will be prepared for a formal rulemaking proposal and then will be submitted to the Standard Board's staff.

A translator in the room requested that panelists and participants speak slowly to allow time for the comments to be translated into Spanish.

**Eric Berg**, Deputy Chief, Research and Standards, directed the attendees' attention to the table on the second page of the agenda, which goes over the changes from the first version of the draft. First, he explained, the scope of the first version was trying to exclude office buildings at certain temperatures, so in response to comments, it was simplified to have just one temperature, 85 degrees dry bulb temperature. Before it was 80 at certain activity levels, and 90 at other activity levels. Also in the previous version, radiant heat, as measured by the wet bulb globe, an instrument that takes into account radiant heat, humidity and the dry bulb temperature, was included. But there were complaints that this was difficult for employers, so it was simplified to only use the heat index, which takes into account humidity, but does not take into account radiant heat. There is also a separate measure to take into account radiant heat, but this will be discussed once we get to that part of the regulation. Next, work activity levels were removed from the current version to make it simpler, in response to comments that it was too complicated. Acclimatization didn't change much. Humidity has already been mentioned. Regarding clothing, the previous adjustment factor for clothing has been taken out.

Eric stated that under Scope and Application, the regulation would apply to all indoor places of work, where the dry bulb temperature equals or exceeds 85 degrees Fahrenheit. There is one exception where employees work indoors less than one hour per day, in which case the employer can comply with Section 3395.

**Michael Musser**, California Teachers Association (CTA), asked for the rationale for the 85 degree temperature.

**Eric Berg** said the rationale was to simplify the standard as much as possible, and still protect people. 85 degrees is higher, but there are many office environments where it's around 80 degrees that do not need to be included. An office can be 80, 81, 82. Certainly uncomfortable, but not a health hazard.

**Mike Rehor**, Pactiv, asked where the 85 degrees is measured. They have facilities that are tens or hundreds of thousands of square feet, and temperatures vary throughout the facility.

**Mitch Seaman**, California Labor Federation, thanked Cal/OSHA for the opportunity to testify today and bring all of their people down here to Southern California. They have a lot of workers who are directly affected by this hazard and appreciate the opportunity to talk about how this affects them personally. Regarding the change, they consider it a pretty significant step backward. The old version had an 80 degree temperature threshold for those who perform moderate or above work activity levels. Moderate was defined as normal walking. There really is no work that he can think of that doesn't involve some normal walking, so effectively the threshold was 80 degrees Fahrenheit. At 85 instead, with work activity levels taken out of

consideration, people doing very heavy, very strenuous work are not going to be protected. They think 85 degrees is way too high and raises risk and creates a lot of hazards for workers. They recommend bringing it back down to 80 degrees, and applying the heat index so that humidity can be factored in. For example, someone told him it was 68 degrees in Long Beach today, but the heat index had it above 80. So humidity is an appreciable factor, and without any way of bringing that in, just looking at Appendix A, at 84 degrees, it can be over 100 degrees with the heat index. This would allow people to work in over 100 degree weather, doing very heavy activity, wearing heavy clothing, with no indoor heat protection at all. That's just crazy. They hope that the proposal can be amended to 80 degrees Fahrenheit, including the heat index.

**Bruce Jefferson**, Warehouse Worker Resource Center (WWRC), stated that he's a warehouse worker, currently working for Cal Cartage in Wilmington. As a warehouse worker indoors, and inside containers, he asks that it be put back to 80 degrees. A simple fact is, just yesterday, it was 80 degrees, but inside the container it was 104. He's witnessed individuals in the first stages of heat illness. His supervisors aren't properly trained to see the signs of someone who is falling ill from heat illness. They're constantly in there working, lifting 150 – 300 lb. boxes, refrigerators, barbeque pits, patio furniture etc. Also, he has some colleagues who work with him in the warehouse, who are temp workers.

**Meghan Neal**, 3M, stated that while the proposed standard refers to all places of employment, it doesn't specifically recognize exposure. This is contrary to the NIOSH guidelines, that you say this standard was derived from, which specifically say "to greatly reduce the risk of adverse health effects to exposed workers". She'd like us to take that into account.

**Jeremy Blasi**, Unite Here Local 11, stated that he is a staff attorney with Unite Here Local 11, which represents workers in the hospitality sector in the Los Angeles area, including workers in the airline catering sector, where heat stress and illness is a major issue. They echo previous comments and want the reduction of the global threshold from 85 to 80 degrees. To take airline catering, for example, they have workers that they organize and represent in the dishrooms there. These are massive industrial operations, where workers are working with tunnel machines to clean tens of thousands of pieces of silverware, coffee cups, plates, carts and other items over the course of their shift. To do that involves strenuous work, lifting, reaching, pulling, and moving items. Their hands and arms for many parts of the day are in hot water. There is water and steam everywhere, which results in an extremely humid environment, which exacerbates the strenuous nature of the work in a significant way. As a result of these conditions, they've had stories of workers passing out or becoming incoherent, needing emergency medical attention. What ultimately matters is how heat is experienced by workers, and how the body handles it, which is why the heat index and accounting for humidity are so important. We're concerned that at 85 degrees, we're circumventing any analysis that's required to ensure that workers can do their work safely. They therefore strongly support the recommendation to reduce the global threshold to 80 degrees, and include the heat index at that level so that we're taking into account the full experience of workers.

**Javier Rodriguez**, International Brotherhood of Teamsters, stated that he, along with Bruce Jefferson, tracked the temperatures yesterday. The temperature yesterday in Long Beach was 67 degrees, but inside the warehouse and in the containers it was 87 degrees. His recommendation is to keep the standard to 80 degrees, because they have warehouses without ventilation. It is hotter inside than outside.

**Luisa Gratz**, Int'l Longshore & Warehouse Union (ILWU) Local 26, stated that she is disappointed that the wet bulb was taken out. You could have moderate temperatures yet with extreme humidity it can make many workers sick, especially those with the propensity to be sick under those conditions. It is really important to go back to the wet bulb index. In the 2009 hearings her group argued strongly for the wet bulb. They've been trying to get an indoor heat standard for 20 years with Cal/OSHA. Every time they reached a certain point, people that work in air-conditioned environments resist these efforts. She sent a letter to every employer for Local 26 and got three phone calls from three different employers thanking her because they were not aware of the effects of heat, didn't understand it, and each of these employers is now doing training and providing drinking water.

**Amalia Neidhardt**, Senior Safety Engineer, commented that it is important to encourage everybody to make comments and not attack anybody. She asked to please help her not to discourage anyone from providing comments.

**Luisa Gratz** stated that people who work in an air-conditioned environment should not judge those who don't, but rather be willing to share that with the rest of those who don't. She said she would give Amalia a copy of a letter, which lists the things that employers agreed to do. This is what they sent to every member.

**Tim Shadix**, Worksafe, echoed what some of his colleagues said. They strongly believe the threshold for all workers should be 80 degrees; that it should be measured by heat index taking into account the humidity and how much workers are exerting themselves. The most important thing is not just a measurement of the air temperature, but the ability of workers' bodies to cool themselves to stay healthy and safe. It should also take into account whether workers are wearing heavy clothing that might prevent them from cooling down. This standard applies to a very broad range of industries, where folks might be working in warehouses, industrial laundromats, where once the temperature gets above 85 degrees, the humidity level is much higher. They strongly feel that the temperature threshold needs to take into account those factors, and needs to be set at 80 degrees.

**Corey Friedman**, Counsel, said that it is true, in our effort to simplify the regulation, that some of the calculations based on work levels were removed. Work activity is one of the things mentioned in the bill. So comments about how to address those two issues are welcomed, so that people can comply in a reasonably simple and clear way.

**Steve Hatch**, WWRC, stated that he's worked at Cal Cartage for 6 years. They actually unload steel from cargo/shipping containers, which don't have a lot of air circulation, so the heat builds up quickly, usually 20 degrees more than what the outside temperature is. He thinks the standard should be lowered to 80 degrees. He said that they're like the post office, except they deal with heavy objects: appliances, clothing, tables, chairs, everything that you can imagine, they receive and ship. It is very strenuous work.

**Mercedes Cortez**, Garment Worker Center, said, through a Spanish translator, that she was representing all garment workers. She stated that this standard doesn't take into account that as a sewing machine operator, she often has a machine in front of her and in back of her, and rows and rows of machines next to her. All of the heavy machinery and the body's movement produce heat, which is not taken into account. Sometimes people faint, and it is very hot in the sweatshop. She added that garment workers still work in sweatshops, not only here in the IE (Inland Empire), but also in downtown Los Angeles. She said that she's working in factories where there are only about two windows, and two semi-working fans that are used to

try and provide some cooling and ventilation for an average of 15 – 30 workers at a time. It is very hot; employees are drenched in sweat. Garment workers work from 10 -12 hours per day, and they have to sit in that heat. The heat is not being extracted, so it's also creating bacteria, and more rats and roaches are in the environment. She wants more focus and investigation on the whole garment industry. She said she would like to share their health and safety report which was done in collaboration with UCLA - LOSH. They found that an average of 60% of garment workers reported poor heat and ventilation standards at their job. It's not only the 80 to 85 degrees outside heatwise, but also the heat that the machinery causes and the heat that the body creates. Garment workers are working by piece so they're working very fast.

**Kevin Bland**, representing California Framing Contractors Association (CFCA), Western Steel Council (WSC), and Residential Contractors Association (RCA), stated that when it was simplified, it created another ambiguity. There is testimony that a lower trigger is needed. 85 degrees means whatever it is indoors and it doesn't matter what it is outdoors. But the ambiguity is in regards to where the temperature is measured.

**Bruce Jefferson** interjected and **Kevin** clarified that he meant that it needs to be 85 close to where a worker is working, not just anywhere inside a given building/structure. This ambiguity needs to be fixed so that employers understand how it's to be applied and for the Division on how they're going to cite. Another issue is with the one hour indoors. Is that one hour total or one hour at a time? What if one is inside for an hour and one minute, but goes back outside for two hours. Which one applies? Is it indoor or outdoor heat illness?

**Anthony Vallecillo**, Teamsters and WWRC, said that he is an organizer with IBT, and an ex-warehouse worker. It should be 80 degrees, because even when working under 75 degrees, you're working at a fast pace, and you're overworking your body. Even at 75 degrees, there are guys that have fainted inside the warehouse. Your body is different from everybody's even if it's inside.

**D'Wayne Wilson**, WWRC, stated that he is a forklift driver at Cal Cartage. The standard should be 80, not only because it's hotter in the container, but it should take into account the outfits that they're required to wear. At the warehouse where he works, they are not allowed to wear shorts, so people are sweating and they're moving constantly. It is strenuous.

**Luis Martinez**, WWRC, through a Spanish translator, stated that he is a warehouse worker and shared a story of when a coworker fell ill. He said that the temperature inside the warehouse was 82 degrees because the warehouse was completely locked up; none of the dock doors were open. Luis noted that he almost got fired for helping a temp worker and how the supervisors continued to insist that the temperature was fine. The temp worker continued to feel worse and asked the supervisor to call an ambulance, but was told instead to call his temp agency. The temp worker was sent home. The supervisor threatened to fire Luis for abandoning his post. Luis said that employers' consciousness needs to be raised because workers are put at risk. He also asks that the temperature be lower.

**Bruce Jefferson** said he carries a thermometer with him and that where he works, they wear heavy clothing, steel-toed boots, gloves, etc. There's no telling what's in the containers from overseas – scorpions, snakes, etc. and they're told to go inside to work. On an average day, it might be 80 degrees, and after the first 30 minutes inside a container, the top half of his body is soaked. If the heat is getting to him, someone could go tell the supervisor, but supervisors don't care. So the threshold should be 80 degrees, or lower.

**Joel Berman**, Health Science Associates and the California Industrial Hygiene Council, stated that just using a number is not particularly scientific. The American Conference of Governmental Industrial Hygienists has a heat index guideline in their Threshold Limit Values, and that's based on the WBGT, wet bulb globe temperature. It's a fairly good document and should be used. They echoed the concern about how someone would measure the one hour.

**Manuel Jimenez Jr.**, Sherwin-Williams, stated that he is the environmental, health and safety manager for Sherwin-Williams in Victorville. They are part of the Cal/OSHA Voluntary Protection Program and are a certified Star Site. They take heat illness very seriously, and don't rely just on what the regulation states. They go above and beyond to ensure their employees are well hydrated, well-educated and have the means to ensure that they're working under safe and healthy working conditions. They are providing water, Gatorade, PPE, and also engineering out some of the things they can manage with swamp coolers and air conditioning. He's all for more stringent requirements. He encouraged employers to look at their work environments and not just go with what the regulation says.

**Amalia Neidhardt** asked Manuel if he could provide Cal/OSHA with a copy of their heat indoor plan, as they are a Cal/OSHA VPP site.

**Jose Olivera**, an attorney with California Rural Legal Assistance (CRLA), stated that most of their clients are agricultural workers, but some are also in indoor facilities. They work in packing sheds, greenhouses, and a variety of other facilities. The threshold level should be lowered to 80 degrees. Consider women who are pregnant who are working in indoor facilities, to protect their health and the health of their child.

**Rania Sabry-Daily**, an industrial hygienist with UCLA – Labor Occupational Safety & Health Program (LOSH), had three comments. First, the outdoor heat standard triggers at 80 degrees; so 85 is too high and should be dropped to 80 degrees. Second, recognizing hazards is very important, and using a single temperature to measure exposure is not enough because it ignores humidity. Measurements of exposure should be done as close to the worker as possible, depending on one's tasks and the heat sources around them. Indoor situations have very little airflow. If there is no air movement then the cooling effects on the body are reduced. In outdoor environments there's more likelihood of air currents and air movement. This highlights the problem of ignoring the WBGT as a measurement tool, because there are no air movements indoors. Cooling is a major factor but is not being accounted for. So humidity and air movement need to be taken into account. The last factor to add is clothing. Clothing plays a major role in heat stress and is not being taken into account. Exposure needs to be adequately measured so that the risk can be adequately controlled.

**Blanca Hernandez**, Garment Worker Center, stated through a Spanish translator that she was a worker in the garment industry. She said that in their factories, they have those motors, whether they're underneath them or behind them. And it's usually very hot, and it's hotter than the standard being set. Just to reiterate, they have machines in front of them and behind them, and often they have garments on the side of them that encapsulate them in this little heat level. Garment workers are working inside the factory for anywhere between 12 and 15 hours per day. And the temperatures are usually higher than 80 to 85 degrees. Blanca shared a story of a co-worker who fainted twice at work. The second time she fainted they thought that she was dead. She started turning purple, she was no longer sweating, and all the managers did was to take her by where there was one single window. Her co-worker was unconscious for 15 – 20 minutes, and when the paramedics came for her, they said that she fainted because of heat stress. Consider setting the standard at 80 degrees. The heat stress is also exacerbated by the



lack of water at the job site. Sometimes they don't get breaks, so they carry around pieces of bread while they're working. The bosses don't provide them with breaks to go get some water or fresh air. The little pieces of crumbs that they have sometimes attract mice and roaches. They are some of the lowest paid in the workforce, on average they earn about \$5 per hour. It's not enough that they're being robbed of their money, they're being robbed of their health.

**Corey Friedman** said that all comments are welcomed, but asked to please keep them to three minutes. She explained that it is the middle of the day and that there is still the whole draft to go over.

**Kevin Bland** said to make sure that participants know that they should call, if things like the ones previously mentioned are happening. Not getting water or breaks is illegal now. This needs to be communicated so they can get help.

**Miguel Castro**, Teamsters, stated that as a former Waste Management driver, he wants the standard lowered to 80. They're out in the elements 12 – 13 hours per day, and in the summertime heat is even more of a problem. 95% of their trucks are cab over engines, with 8 different pistons, so inside the truck it's 110 – 112 degrees. Drivers don't have a breakroom, the best they can hope for is to find a parking space somewhere under a tree to take a break. Cal/OSHA should use the heat index and take into consideration humidity too.

**Sarah Tan, Vina Nguyen, and Katherine**, stated that they are public health students at UCLA. Along with the UCLA Chicano Studies Department, they partnered with the nonprofit organization Restaurant Opportunities Center of Los Angeles, also known as ROC LA, to survey over 40 restaurant workers in Los Angeles, Santa Monica and Paso Robles. With over 11 million workers, the restaurant industry is one of the largest and fastest growing private sector employers in the nation. California has the largest restaurant industry in the country, with over one million workers. Despite the restaurant industry's growth, most restaurants provide low wages and few options for benefits. Hazardous working conditions, including unsafe indoor heat, continue to be the norm. In their survey, they asked restaurant workers about the impact on their health, and what solutions they'd like to see. They consistently heard that even at temperatures of 80 degrees, workers began to suffer headaches and other physical problems. Workers repeatedly cited the need for air conditioning, ventilation, drinking water and restrooms. They shared the story of a ROC LA member who worked as a waiter for over 7 years, and also did restaurant salad prep. He said that in his experience as a waiter, he subconsciously tried to spend less time in and even near the kitchen when he was waiting to inquire about, request or pick up food. Even working as a wait staff, he would get dizzy if he was in the kitchen too long. When he worked in the salad prep, the humidity made the heat even worse. They sweat a lot, 80 degrees and 75 degrees at high humidity can feel like unbearable heat. There are no standards about indoor heat in the kitchen. Cal/OSHA can make a difference in the lives of millions of employees by protecting their rights while improving productivity. This would translate into healthy profits and is a win-win.

**Lawrence Lan**, Restaurant Opportunities Center (ROC), stated that he is a volunteer with ROC Los Angeles, a nonprofit that works with restaurant personnel. They support lowering the threshold to 80 degrees. Air conditioning and ventilation are very important. There is a long-term impact from working at high temperatures. Not enough rest, not enough water; one feels tired by the end of the shift. Rest is very important because they often work at a fast pace. So it's very important that they have protections, like a regular 10 minute break every hour when it's hot. Waiting until the temperature is 95 degrees is too late. They need these protections at 80

degrees, which is very hot when you're wearing a chef's coat, moving around, and exposed to heat from the stove, oven, grill and fryer.

**Alma Trejo**, CA Works Foundation, stated she is a former warehouse worker and hospitality worker. She echoed lowering the threshold to 80 degrees and using the heat index to account for humidity. She advised creating consistency with the outdoor heat regulation as workers often have to take their work outside or their assignments outside. Workers need these protections. Communities are often afraid to voice these concerns or don't understand the law or their protections. She suggests employers get a thermometer and account for humidity.

**Deogracia Cornelio**, UCLA Labor Occupational Safety & Health Program (LOSH), stated that she is an educator with UCLA – LOSH, and that we need to measure the heat index. Dry bulb temperature does not work particularly well for indoor places, because there are so many sources of humidity which changes the whole picture. She was involved in the Cal/OSHA campaign to prevent outdoor heat illnesses many years ago, and one of the things talked about was the necessity of considering humidity, and not just dry bulb temperature. Based on this, she's been teaching workers of the necessity of considering not only heat but also humidity. Particularly for indoor workplaces, humidity is a huge factor.

**Bruce Wick**, California Professional Association of Specialty Contractors (CALPASC), said that we've heard some very difficult stories this morning. There have been times that he, working with construction employers, has called Cal/OSHA, and turned in another construction employer, who didn't provide fall protection, or were putting people in trenches without protection. And in every case, Cal/OSHA did not identify him as the complainant to the employer. He said that if anyone believes they are working in unsafe, unhealthful conditions, to call Cal/OSHA. Also, Cal/OSHA is the one entity that cannot identify a complainant. If you're not getting breaks, they can call the Labor Commissioner's office. He believes that there are 800,000 indoor employers in California, and with multiple locations, with well over 1 million indoor employment locations. This reg is trying to encompass everybody and he hopes that it comes down to the industries that are represented here - warehouses, unloading containers, restaurants, hospitality, garment workers. Maybe focus on those industries first, and then deal with the other 600,000 or 700,000 employers, who don't have the same problems that we're hearing about here. A one-size fits all standard will be problematic to really address the issues of these specific industries.

**Brian Miller**, a safety director with Rudolph & Sletten and Construction Employer Association (CEA), stated that Rudolph & Sletten is also a participant in the Voluntary Protection Program in construction. They were recently awarded and recognized as a VPP-C at their Apple Campus 2 project, which is one of the largest projects going on in California right now, with about 168 acres, 3000 workers working on the day shift and 2000 on the night shift. He commented on the importance of defining in the scope and application what we are looking for. Without a clear scope and application, you can't do it. 3395's scope and application gives a specific quick list of who it applies to, and it's clear. He recommends that the board consider a subcommittee with key stakeholders, to hammer out the scope and application. Right now it is all over the place with the 80 and 85, and he appreciates both measurements. A lot of our triggers start at 80 degrees for construction. But the scope and application needs to be hammered out, to make it easier for employers to apply to its employees.

**Pat Singh**, Albertsons, said that he represents Safeway Albertsons. They have many facilities in the state, and about 85,000 to 90,000 employees. He said that the question of where to take the temperature had been addressed but he asked for how long and where does it have to be in

excess of 85 degrees? For instance, at a grocery store; if they're frying donuts for 25 minutes, or 1 ½ hours and the temperature exceeds 85 degrees where the donut fryer is, would that put the whole grocery store under this standard?

**Luisa Gratz** stated that this is really a human issue and is not us vs. them. She noted that supervision doesn't have a voice, though they're a component in the training. In some cases their members' supervisors have gotten sick from the heat but because they have no one representing them, they go home sick. She stated that she was in negotiations with a huge employer a couple of years ago, the air conditioning went out and a lot of people got sick. They didn't have a thermometer. And even in her office, when the workers got sick, they shut the building down and everybody had to go home, because it was just too hot. It was like 82 degrees in the room. We need the cooperation of employers; we cannot do this without them. So we'd better come together and stop this fighting because we're dealing with climate change. It's not going to get better. She asks to please reconsider the need for the wet bulb.

**Maria Vasquez**, stated through a Spanish translator that she worked in restaurants as a cook. The temperature in kitchens is really hot because of the fryers, griddles, ovens, and stoves. She shared that in many places, there is air conditioning, but the employer doesn't turn it on, because they want to maintain the food at a high temperature. A lot of times when they're working there is black smoke that is being absorbed into their lungs due to the lack of ventilation. Because of this, she gets headaches, her eyes are irritated, and she gets pain in her joints and bones from working in such high heat. She asks to lower the threshold to 80 degrees, and to also check that not only there is HVAC/ventilation/air conditioning, but that it is maintained, repaired and actually on. She said "thank you Cal/OSHA", for letting them know that there is an agency that cares about their rights as workers. She hopes that Cal/OSHA makes sure that workers stay informed, because a lot of times at work they do not have this information. She also strongly supports training.

**Amalia Neidhardt** encouraged employees to report it too.

**Miriam Garcia**, WWRC, stated, through a Spanish translator, that she is a warehouse worker. She thanked the organization that is based here in Ontario, the Warehouse Worker Resource Center. And she also wants us to take into consideration the temperature. They have a daily fight at their warehouse because of the retaliation they've had to face for asking for a heat break at their worksite for the hard work that they do.

**Steve Smith** thanked everyone for the comments on scope and application and announced that we will break for lunch.

LUNCH BREAK

**Steve Smith** reconvened the meeting at 1:00 pm and said that a lot of good input had been received on the scope and application. Now, moving into the specifics of the discussion draft, starting with the definitions. He requested that attendees narrow their comments into these areas or if their topic wasn't covered to wait until the end, when people can provide more general comments. If you have language that you think is better than the existing language, you can submit that to Amalia. You can also email Amalia additional comments through the end of June.

**Amalia Neidhardt** asked for comments on subsection (b) Definitions. In response to previous requests, definitions from Section 3395 were incorporated into this draft. Some definitions were

removed related to clothing, and other risk factors like work activity level. She asked for any suggestions, concerns, and recommendations regarding subsection (b).

**Mitch Seaman** voiced a concern about the change to the definition of “high radiant heat work area”. The original draft version was better because it defined a significant radiant heat source and listed different kinds of facilities that have high radiant heat work areas. They suggest that one of the strengths of the standard is that it does apply to everyone and it’s something that was pretty important during the fight over SB 1167. It doesn’t just affect warehouse workers, it affects many industries such as garment workers, kitchens, etc. They strongly urge the department to go back to the definition in the old version of high radiant heat work area.

**Joel Berman** stated that they would rather see the definition of “acclimatization” that NIOSH put together in the 2016 NIOSH criteria document related to heat illness.

**Matthew Allen**, Western Growers Association, stated they are concerned with what constitutes an “indoor” environment. For Ag, they have packing sheds and those workers routinely transit between the sheds and the outdoor working environment. The confusion is about which standard would apply. Make it clear and concise so they can implement the standard in a reasonable and cost effective manner. He is concerned about how the definition of “indoor” would apply to vehicles, such as tractors. They are also concerned with subsection (a) which says that you have to reassess whenever there is a change in tasks or work processes and operating equipment. They change throughout the day. Make it clear.

**Tim Shadix** echoes Mitch Seaman’s comments on the definition of “high radiant heat work area.” No industries should be excluded from this definition. The actual definition should be enough without having to enumerate specific industries. They also agree that the definition of acclimatization should follow the NIOSH definitions. They appreciate the addition of a definition for “cool rest area” and request that it include ventilation. The cool rest area should also be large enough to accommodate workers so there is not any overcrowding. They also advocate the need for a definition of “worker representative,” for workplaces where there’s not a union contract. This is important because worker representatives help workers to raise issues with their employers and prevent retaliation. Such definition would be consistent with what they see in the federal OSHA PSM standard.

**Sophia Cheng**, Restaurant Opportunities Center, commented on the definition of “acclimatization” and shared a statement from a cook that has permanent eye damage from going between the broiler and the freezer. He did not have glasses, goggles or other safety equipment. Ms. Cheng echoes Worksafe’s comment that they appreciate the addition of the definition of cool rest area due to the importance of rest breaks particularly when working a long (12 hours or more) shift. Sophia also translated statements made by two workers, **Alvira and Christina**, that worked for a Salvadoran restaurant which was always hot because of the griddle, stove and other sources of heat. They related instances where they did not have water to drink, would get headaches, and kept asking that the AC be repaired. They support reducing the threshold to 80 degrees and stress the importance of having air conditioning and ventilation.

**Steve Smith** reminded them that there are existing standards that says if there’s a HVAC system and it’s not working, it’s a violation. With regard to the comment about drinking water, that is also already an existing requirement.

**Sophia** replied that the existing HVAC regulation is about the quantity of outdoor air, but not about maintaining a certain temperature. **Steve** replied that it doesn't talk about temperature, but that it has to operate as it was intended. So if it is broken, then it is not in compliance.

**Meghan Neal** asked that the definition of "cool-down area" make clear how close is close. Regarding "high radiant heat work area," she inquired whether an entire site, if they have an indoor source like a single oven or a kiln, even if it is thousands of feet away or in a different building, would make the entire site fall under indoor heat. Additionally, she said that the proposed text doesn't seem to qualify that an outdoor source of radiant heat might have an effect on an indoor work area if it is adjacent to that indoor work area. Regarding "heat wave," she thinks that was originally in the outdoor standard 3395, and asked why it was removed from that standard and included in this one. **Amalia** replied that it was not removed from 3395. Regarding the indoor places of employment definition which describes them as consisting of 2 or more walls, they have a welding bay that has 2 walls that go up 40 feet with a roof on them, and she thinks that's more impacted by the outdoor temperature than by the indoor environment. An employee that works there for a short duration would be subject to both standards, and the outdoor standard is simpler for employers to comply with.

**Joel Berman** commented on the definition of "heat wave," that 80 degrees could be a cool day in Fresno and suggested wording it, rather than a specific temperature, as 5 or 10 degrees above the average of the previous 5 days. The definition of "indoor" is very convoluted and very difficult to understand. **Steve** stated that stakeholders have until the end of June to provide suggested language.

**John Kanyan**, Milgard Manufacturing, pointed out that the definition of "heat wave" being at least 80 degrees is out of alignment with the scope and application of 85 degrees so this needs to be clarified. In addition, it doesn't take into account the humidity.

**Steve Smith** clarified that this definition is verbatim from 3395.

**Marti Fisher**, California Chamber of Commerce, stated that the definition of "indoor" lacks clarity. The "cool-down area" also needs more work and asked if a person that is working outdoors goes indoors to cool off, would 85 degrees be good enough. They are also concerned about the definition of "high radiant heat work area," specifically item (2), which states that by special order the Chief can designate a high radiant heat work area. They asked if it is an underground regulation. **Eric Berg** replied that instead of a citation, an employer gets an order to take special action and that it's issued to an individual employer. Marti added that a special order usually has some sort of citation and penalty along with it. Eric replied that there's no penalty. **Corey Friedman** clarified that it's not an underground regulation and that it applies to a specific employer.

**Nan Jiao**, UCLA Industrial Hygiene graduate student, has concerns with the definition of "heat index," specifically the rationale for assigning levels I, II, and III. She adds that the National Weather Service for 80F to 90F, indicate caution. But heat index is developed for outdoor situations and indoor if there is no air flow, humans will feel hotter and heat stress will be increased. She recommends taking into account lack of air flow and the effect of clothing. The WBGT system takes both into consideration. She did a comprehensive literature review and found seven studies on clothing factors and that encapsulating clothing adds 10 degrees Celsius to the WBGT system. Military guidelines show that military chemical suits have similar physiological impact as industrial usage vapor barrier suits.

**Rania Sabry-Daily** suggested that the definition of “environmental risk factors for heat illness” should include conductive heat sources such as the ground – hot equipment, or hot processes.

**Kathy Hoang**, Director, Restaurant Opportunities Center (ROC), read member statements about kitchen workers that have been exposed to high temperatures, fast pace, lots of smoke from cooking with charcoal and lack ventilation. These workers had to bring their own water and fans because the HVAC wasn’t working. They asked the managers to turn on the AC but they didn’t listen and said that food needed to be at a certain temperature. Ventilation is important and so is a rest area that is cool and clean. They wear heavy clothes like a chef’s coat to protect their arms. Like many restaurant workers, they lack access to health insurance and have gone to work sick. They hope for stronger Cal/OSHA rules and protection from retaliation.

**Nicole Rice**, California Manufacturers & Technology Association, is concerned with the specific temperature required on the definition of “cool-down area.” She suggested using “substantially or significantly cooler” to make sure the individual is being acclimated to a cooler environment in a safe and healthy way. Regarding the use and inclusion of cups, having disposable cups is not environmentally friendly and can be a problem since a lot of their member companies are trying to be more environmentally and energy efficient. Having cups standing uncovered, particulate matter and particulates in the air could settle into the cup and the individual would be digesting that. They provide employees with recyclable bottled water containers. Nicole also commented that they are unclear on the definition of “indoor,” as they have cranes and hoists, which complicates this. The heat index and different levels will be challenging for manufacturing facilities because they have processes that have varying temperatures. The industry has certain standards they follow based on the subsector of the manufacturing industry and these are not being reflected in the draft regulation. She suggested excluding manufacturing from this rulemaking and have industry standards apply to their operations instead.

**Corey Friedman** introduced subsection (c) Heat Illness Prevention Plan and asked for comments.

**Marti Fisher** commented on (c)(1), with regards to the active involvement of employees and their representatives, they want to make sure that representative is defined narrowly as the employee’s union representative. **Kevin Bland** added that the representative be under their collective bargaining agreement. They don’t want to see just anybody coming in and becoming involved in employee’s behalf or participating with the employer.

**Michael Musser** agreed with Marti Fisher and stated this really needs to be union involvement with this employee to help make sure they have active participation.

**Tim Shadix** stated that they support the overall inclusion of employees and strongly disagree that this should be limited to union representatives in workplaces where there is no collective bargaining agreement. Workers that do not have a union representative still have the same need and benefit from working with a designated representative to assert their rights and to work on improving their workplace plan. It would be consistent with federal OSHA PSM and other statutes to include in that definition a worker center or an attorney or some other designated representative.

**Meghan Neal** inquired about how the employer would demonstrate “active” participation to Cal/OSHA.

**Luisa Gratz** stated that it should not be limited to union representative. All employees are subject to heat stress, including management and supervisors. So all working people should have access.

**Kevin Bland** commented on (c)(1) where it says “and”, which makes it mandatory that you have to have both employees and representatives. It’s important for representatives to be true representatives and should not be opened to whoever comes in as the representative because it can be worse than having none. He recommends that it be “and/or”, otherwise it’s required to have both and they may not have a representative.

**Bruce Jefferson** stated that non-union workers also need representation like the Warehouse Worker Resource Center. Without them, workers wouldn’t have a voice. **Steve Hatch and D’Wayne Wilson** echoed these comments.

**Brian Miller** asked about other Title 8 sections that require active representation. He writes a lot of plans for the company and brings it out to the employees. As a general contractor, they have 1,000 employees through the state of California and 20,000 other employees that are not their employees working on their job sites. They’re all under his plan. So he recommends thinking about what that really means and how it works out in a real world environment. He is concerned about getting in trouble for not taking the advice of the 200 people.

**Javier Rodriguez** stated that non-union workers should have representation.

**Zacil Pech**, Garment Worker Center, suggested that the definition of representatives should be kept broad. For them it’s very much an underground economy and they want that worker advocates as well as union advocates are taken into consideration.

**Eric Berg** discussed subsection (d) Assessment of Heat Illness Risk and asked for comments.

**Joel Berman** recommended that (d)(1) require the WBGT from ACGIH as it is a much better way to measure.

**Nicole Rice** stated they have concerns about how the employer will know and ascertain when the heat exposure is at or near the annual high in (d)(1). They are also concerned with the requirements in (d)(2) to post heat index measurements. It’s more reasonable to post signs and put their employees on notice with the words “Caution, high heat” than to try to measure and then have to change that measurement every time. With regard to (d)(3)(A) “when there is a change in working conditions,” they routinely rotate individuals to different job responsibilities especially small and medium size employers, because they have a skill shortage in their industry. She inquired whether the heat illness risk will have to be reassessed every time a person rotates even though they may have worked in that process numerous times. She added that the requirement to reassess annually in subsection (d)(3)(D) is very challenging.

**Jeremy Blasi** supports the requirement in (d)(2) to post heat index measurements in each work area. This transparency is valuable because it conveys to workers the risks they’re exposed to and raises the question of what additional precautions should be provided. They suggest adding time-bound requirements, like one month, so that workers don’t have to wait a full year for the assessment to take place.

**Tim Shadix** also supports the posting requirements. It will be a more effective and transparent process if employees can look and actually see what the temperature in the work area is and

understand what protections they need to have or need to be put into place based on the posted heat measurements. It's not an unreasonable burden to ask employers to make that measurement at least annually. There should be some kind of trigger that says once this standard is implemented that employers will have to do an initial assessment within 30 days or 60 days.

**Kevin Riley**, UCLA-LOSH, commented on (d)(3)(A) reassessment of heat illness risk. In addition to procedures, work processes, engineering controls, or administrative controls, it's worth including language around changes to protective equipment or clothing that people might be using. This speaks to the issue of the clothing adjustment factor and the importance of clothing and determining the heat load that people take on.

**Adam Kotin**, Wine Institute, represents close to 1,000 wineries in the state. He pointed out the confusion caused by using different terminology in (d)(1) "determine the heat index in all "locations," vs. (d)(2) posting these measurements in each "work area." Wineries have different activities going on within the same building and he asked what would distinguish one work area from another. Their members are confused about how frequently the measurements need to be taken and how frequently this should be updated based on what's written in (d)(2).

**Kevin Bland** commented on the need to avoid vague and ambiguous language. He recommended tightening the language so that employees know what's expected of the employer, and enforcement knows how it's to be enforced. He inquired if the "change of work task" entailed a substantial or a minor change. If one goes from operating a backhoe to now running a jack hammer, that's probably a substantial change. If one goes from operating a backhoe to operating a loader, then that may not be a big change. **Steve** asked Kevin if he has any constructive language to submit. Kevin replied that they can work on it. **Corey** encouraged people to consider submitting specific language that they want to the Division for its consideration.

**Matthew Allen** agreed with Kevin Bland, they also want to make sure the language is clear and unambiguous. They are concerned with the "indoor" definition about vehicles that would pertain to Ag equipment and the requirement to reassess the heat illness risk. That equipment goes through multiple processes throughout the day such as plowing operations or pulling a trailer later in the afternoon. They would have to change the heat illness placard throughout the day and retrain the employee on different standards when they're already abiding by 3395.

**Rania Sabry-Daily** commented that the requirement to determine the heat index specified in subsection (d)(1) is inconsistent with the definitions given for "environmental risk factors for heat illness" which includes several factors besides air temperature and relative humidity, as well as the definition for "personal risk factors." All of these factors go into assessing the risk of heat illness. The last sentence in (d)(1) that "personal heat monitoring is not required" nullifies the idea that different people may have different exposures in the same work area because the risk may be different from one individual to the other. Recommends using the WBGT because it does take into account multiple things including air movement.

**Meghan Neal** commented that it is not clear if the word "near" means as near as practical, or near to the source, or near to the employee's back. Same with "at the highest levels" and "exposure at or near the annual high," since some tasks are hotter than others and non-routine tasks, turnaround, shutdown, startups could be done in winter or in the summer. Recommends focusing on the worst-case scenario. She also inquired about the length of time that is required for posting and the specific location. With regard to reassessing during a heat wave (d)(3)(B), it



is not clear if it has to occur every time there's a heat wave and on the first or third day the heat wave. It is also unclear, once the data has been gathered, how long do employers have before reposting it. She asked for clarification whether the reassessment is required if an employee heat illness occurs to a contractor, or anybody walking through the area or even if it might not be reported. The requirement to reassess annually is a moving target. From an employer's perspective, they will constantly be assessing.

**Amalia Neidhardt** moved the discussion to subsection (e) Rest and Hydration.

**Tim Shadix** commented on subsection (e)(2) preventative cool-down rests, that they would like to see language about employees' ability to do that free of fear from retaliation. They feel that it's very important, particularly with regard to the ability to take rest breaks when a worker feels any heat stress.

**Meghan Neal** requests language that employees will have to report to the employer the need to take that cool-down period, not from a permission standpoint but from an awareness standpoint so then the employer can effectively monitor the employee during that time. **Amalia** clarified that this language comes from Section 3395 and that this requirement has been around for years.

**Luisa Gratz** stated that some of the employers that they deal with are aware of the need to take breaks and found this information helpful. Others said they think this is a gimmick for people to get out of work. There has to be a component to educate the employers so they understand the health needs of their employees. This has to be seen in the context of the real world so such a component needs to be added.

**Bruce Jefferson** stated that he works at Cal Cartage and shared that it's hard for him and his coworkers to get a 5-minute heat break even when it's 105F or 108F degrees. It needs to be mandated for them to have a 5-minute heat break. They were told to go back to work and maybe someone has to fall down dead, to get a break at Cal Cartage.

**Michael Musser** stated that there was some language on encouraging the use of drinking water but not on bathroom breaks; unless it's already covered under other sections. He also asked if encouragement without any fear of retaliation from management was also covered. Steve Smith replied that it is.

**Javier Rodriguez** stated that he was a former warehouse worker and remembers that he was discouraged from taking a heat break or rest when he felt sick and his supervisor would tell him to go back to work or to go home. So there needs to be a specific policy for them to take a break or to drink water. Some of the warehouses have water but it is not fresh or it requires a 10-15-minute walk.

**Shig Noguchi**, United Steel Workers International Union, represents a broad array of manufacturing in Southern California. He echoed previous comments on subsection (e)(2) on allowing and encouraging employees to take a preventative cool-down rest. There should also be some tie-in to if they feel they're putting themselves at risk of injury due to such dangers as machinery, cranes, mobile equipment, dust, fumes, chemicals, adhesives, paint booths, ovens. If one is feeling sick, they need to cool down and avoid putting themselves at risk. Regarding reporting to the employer, there is a need for an anti-retaliation component and reporting to the employer should be matched by reporting to OSHA so that it can be tracked by OSHA. Any employer information should go on the 300 log.

**Celene Perez**, WWRC, reinforced the point in (e)(1) that water needs to be fresh, pure and suitably cool. Warehouse workers became ill by drinking water that was not pure. They could see foreign objects floating in the water. She then noted the importance of a preventative cool-down rest period and strong anti-retaliation language. At her facility, 12 workers were terminated after pressing management for rest breaks due to heat. Some employers want to do the right thing, but some need to follow the law. Steve Smith restated that the sections they mentioned already require them to have potable water.

**Deogracia Cornelio** said that she is very concerned with the suggestion that workers should have to go and tell a supervisor before taking a break; especially because in some workplaces there is a lot of abuse.

**Alma Trejo** echoed previous comments and noted that (e)(1) does not specify that workers should not fear retaliation if they use the restroom.

**Janet Moreno**, Galasso's Bakery, commented that in manufacturing, workers should notify their supervisor because of the need to have someone to cover their spot. It is important to take into consideration every kind of potential employer.

**Corey Friedman** moved the discussion to (f) First Aid and Emergency Response.

**Brian Miller** stated that 3395(e) High-heat procedures, gives a lot of options to construction employers. This proposal appears to require them all. **Steve Smith** pointed out that (f)(2) specifies one or more.

**Rania Sabry-Daily** stated that an employer wants similar procedures for dealing with emergencies whether they have workers working outside or inside. There are 2 elements that are present in the outdoor heat illness standard section (f)(3) and (f)(4) that do not exist in the current discussion draft. She suggests including these elements to make procedures clearer and for the sake of alignment.

**Luisa Gratz** requested a provision to include training requirements for CPR and first aid. The worker should be able to make that 911 call by himself/herself because in an emergency, minutes make a difference.

**Eric Berg** introduced subsection (g) Acclimatization.

**Tim Shadix** supports the changes to require observation for all new employees in the first 14 days. They're very concerned they've lost the short-term heat exposure limits present in the previously draft that included lower exposure limits for unacclimatized employees. They're very concerned of the loss of protection for unacclimatized employees from high exposure.

**Amalia Neidhardt** introduced the next subsection (h) Control Measures.

**Mitch Seaman** stated subsection (h) is the most important part of the whole regulation. It needs to bring the heat level down. They suggest eliminating levels I and II and instead make the level III requirements the standard. They understand that it is not feasible for every warehouse to install an HVAC system, but employers need to bring temperatures down so workers can get home safe. Rather than worrying about different levels of heat waves, control measures should be required whenever there is a heat wave. As in the outdoor standard, the burden of proof should be with the employer to demonstrate that something isn't feasible. They want to align it

with the outdoor standard and clarify that if an employer doesn't have a way to use one of the control measures they need to show that it was not feasible.

**Marti Fisher** agrees with Mitch on the need to simplify the three heat index levels. However, they would prefer to use a temperature threshold rather than a heat index level. She suggested doing something similar to the outdoor regulation in regards to selecting a high heat area and a regular trigger for the standard. They have concerns about the feasibility language previously mentioned because that part of the outdoor regulation is related to the shade. It is much easier to figure out what is shade and what isn't shade, and when it is feasible and when it isn't. Engineering controls is a much broader area which could entail any number of different controls. An employer doesn't know when it's feasible and when it isn't, when they've complied and when they haven't. They want more guidance on feasibility. They would also like to be able to use administrative controls and other measures like personal protective equipment in order to meet the burden of providing protection. She added that in the opening paragraph of subsection (h), the language is very vague and they don't understand when they're supposed to do a pre-shift meeting. Is that every day? They need more clarity to make sure this subsection can be implemented and understood, so that employers can comply with it.

**Janet Moreno** stated that they don't have shifts in their production department, that they come in at staggered times, so they're not able to have a meeting with all the employees before they start work. She asked for other options like pre-shift education or something that's posted at the time clock, rather than a meeting. Under subsection (h)(1)(C), she suggested rewording "the employer shall ensure..." to "the employer shall permit employees to take a preventative cool-down rest..." since not all employees need that. She stated that under (h)(1)(E) personal protective equipment, some of those items don't work in a food environment because of food safety guidelines.

**Meghan Neal** echoed Marti's comments about the pre-shift meeting and the daily nature of staggered shifts. Some have evening workers that are there for 12 hours a day, which will make it difficult to ensure that the employees follow a break schedule. There needs to be more specificity. She asked if subsection (h)(4), which says "required by Industrial Welfare Commission Order No. 14...", was applicable only to the agricultural standard. It is not clear if the point of rest breaks and meal periods applies to all industries or just some.

**Nicole Rice** stated that given the diversity of California's industries, subsection (h) will present challenges to employers. Within the manufacturing industry, they are concerned about the implementation and use of engineering controls, because there are just some areas in a manufacturing facility that cannot be engineered. If you do implement some type of engineering control, you disrupt the delicate balance that's involved in the industrial process and then the product can't be made. They definitely don't want to see the imposition of any blanket engineering controls. They like to use administrative controls. For instance, they might implement summer hours in the hottest areas of the state and start their shifts earlier. She also expressed concerns about the frequency of pre-shift meetings. They have staggered shifts that overlap making it difficult to implement such a daily meeting. They fear that the information provided will become stale due to repetition.

**Luisa Gratz** suggested replacing the term "pre-shift" because that implies prior to the time you clock in. These pre-shift meetings should be held during the shift. Workers should not be required to come in before their shift to have this.

**Tim Shadix** stated that they would like to see the three heat index levels replaced with just the threshold and the strongest protections of level III beginning at 80 degrees. The best protections for workers at risk of heat illness are engineering controls, followed next by administrative controls. In this current draft, those protections are reserved for level III, which doesn't kick in until the heat index is over 100 degrees Fahrenheit. That's very high. As we've heard from worker stories today, many workers have experienced significant heat illness at temperatures well below 100 degrees heat index. He also echoes the comments related to feasibility and that this standard should mirror the outdoor heat standard with the burden being on the employer to demonstrate when those controls are not feasible.

**Deogracia Cornelio** echoed Tim's comments. Engineering controls are the most effective measures. Whereas personal protective equipment is problematic because it adds heat.

**D'Wayne Wilson** agreed with Deogracia. There should just be one level to apply to everything. People are passing out and fainting at 90 or 85. **Celene Perez** also echoed these comments. In warehousing, they do see a big need for exhaust ventilation and some employers have added ceiling fans but there's nothing extracting the heat. This makes the situation worse since you don't have air circulation.

**Jeremy Blasi** is in favor of simplifying the standard so that the mechanisms required at level III are required at level I.

**Shig Noguchi** inquired if the requirement in (h)(1)(C) that "the employer shall ensure that employees take a preventative cool-down rest for a minimum of 10 minutes every hour," – is paid. He suggested specifying that it be a paid rest period. The language in (h)(4) that talks about it running concurrently with other meal or rest periods, needs to be clarified since it appears to be in conflict since the meal and break period are not every hour.

**Rania Sabry-Daily** noted that the control measures in (h)(1), "for work areas where the heat index is at Level III", is similar to the high heat procedures from the outdoor heat standard but it calls for additional items. For example, it calls for ensuring effective communication by voice with the workers, observing employees for alertness for signs and symptoms of heat illness, that there be a buddy system, or supervisor or designated observer of 20 or fewer people. All these high alert triggers are triggered by 95 degrees in the outdoor standard. Here, they're actually not triggered until 100 degrees so there's a lack of consistency. This is an emergency level, a high alert, and should be recognized and addressed.

**Kevin Riley** echoed the need for a more streamlined single level of controls that include engineering and administrative controls, and the burden on the employer for feasibility. He suggests adding language to administrative controls around removing impermeable clothing or personal protective equipment which add to a worker's heat burden.

**Corey Friedman** moved the discussion to subsection (i) Training.

**Tim Shadix** stated they are glad of the inclusion for the need for effective training, but they would like added the requirement for the inclusion of workers and their representatives in the development of the training curriculum and in its application. They also feel it is critical that the required training be interactive and in person. Effective training is not actually defined in the standard so they would like to see either in that part of the standard or an added definition of training that it should be in person and interactive.

**Hector Flores**, UCLA-LOSH, echoed the comment on making sure that this section includes language that the training be made in person and interactive. Oftentimes employers say they're complying with training requirements by having employees view a video or listen to a supervisor provide information. Reviewing a 15-minute video on health and safety is not sufficient to be properly trained.

**Michael Musser** stated that they want to include language to ensure that the training is consistent with the intellectual level and the language of the employee. They also would like this training to be from a recognized professional.

**Anthony Vallecillo** stated that he is not sure whether the training has to be bilingual or in any other language. He feels that the training should be given by a professional or somebody that's qualified. **Jeremy Blasi** and **Bruce Jefferson** echoed these comments.

**D'Wayne Wilson** believes that there should also be a multiple-choice test to verify that employees understand what they're being told. It should also be bilingual.

**Javier Rodriguez** stated that, in his organizing experience, workers sign a blank paper, so when Cal/OSHA asks for proof of training the company has that paper with a lot of signatures. But the workers sign a blank paper without any title and the company can put whatever title they want – chemicals, heat, etc.

**Rania Sabry-Daily** commented on subsection (i)(2) about "the employees' right to exercise their rights..." and stressed that this is very important in preventing heat illness. If workers are to understand that drinking water is important, then they will need to be provided access to the bathroom.

**Miguel Garcia**, USW, suggested including the employees in the development and implementation of the training. He would like to see a refresher training after an incident occurs, not just for at their employer's facility but for sister facilities as well. Employee rights should also be added to such training.

**Coil Dunn**, City of Los Angeles, proposed striking "annual" based on the fact that 3395 doesn't require annual training. He also suggested adding "as close as practicable" throughout the whole document.

**Eric Berg** introduced subsection (j) Recordkeeping.

**Meghan Neal** suggested that job titles in (j)(2) be stricken. A lot of the mining sites in California are dually regulated by Cal/OSHA Mining and Tunneling and MSHA and they have very prescriptive sign-in sheet requirements. It would be difficult to change all of those forms to include the job titles of employees who change jobs throughout the year.

**Janet Moreno** stated her issue with (j)(4), the employer shall not prohibit an employee from recording or utilizing their own thermometer, is with food safety. Employees can't bring things on to the manufacturing floor that could be a potential hazard to the food, so her suggestion would be to post the routine calibration of thermometers, so that employees could review the records of calibration.

**Bruce Wick** stated that (j)(1) and (j)(3) are confusing because it doesn't tell how long to keep or where to post the measurements or records. A lot of employers may want to consolidate that information at a central location. Nobody would know how to follow these requirements.

**Adam Kotin** commented on the requirement in (j)(2) that it's unclear what kinds of qualifications or characteristics of the person conducting the training need to be recorded. With regard to (j)(4) he understands why there is the provision for employee recordings but they have food safety and quality concerns. Wineries are trying to figure out how to comply with the federal food safety modernization act, but there should be an opportunity for the employer to have control over what's brought into that controlled environment.

**Marti Fisher** suggested to pick an industry and apply all of these provisions to see how it would actually work. Maybe talk to some folks from that industry and get a better feel for how these assessments would work, how they would be done, how they would be posted, etc. The Division might want to draft an indoor regulation with industry by industry sections or parts that employers can comply with and that the Division can enforce.

**Brian Miller** stated that he's concerned about any employee bringing in a thermometer that might not have been calibrated and arguing with an employer about differences in temperature readings. He just had an exposure assessment and they videotaped an employee taking the welding rod and putting it close to his air sampling device and it spiked his reading.

**Celene Perez** stated they are in support of workers bringing in their own thermometers. They have seen employers that do not take accurate readings because they get the thermometers and stick their hands into the container for two seconds to take the temperature. Workers need to have their thermometer because they're actually working inside the container, to get a better reading. With regards to (j)(3) and the issue of representatives, the Warehouse Worker Resource Center does everything that union representatives do except that they can't negotiate contracts. It's only fair for workers' voices to be included in that. **Anthony Vallecillo** echoed these comments. They also highly recommend keeping records for the employees to make sure management is doing their job responsibly. They don't agree that this regulation should apply to just one industry.

**Deogracia Cornelio** inquired as to what constitutes a recordable heat illness that should go on the log. She is concerned with the idea that we should distrust workers with access to their own thermometers. Better to encourage and train workers so they can participate in something that is about their own lives and livelihood.

**Luisa Gratz** stated that this standard is supposed to provide something that does not exist today and employers have had generations of opportunities to show good faith. This standard is very important and she's sorry have to wait until 2019 to get it.

**Bruce Jefferson** echoed the previous comments on the need for giving thermometers to workers so that they can document these temperatures. He shared a story of a worker that came out of the container, fainted and was told to get up off the ground and go home. No paramedic came and the company did not report it to Cal/OSHA.

**Jerry August**, GATX, stated that in the railroad industry they have shotblasters, painters, welders, etc. They have thermometers that can withstand anything, including shotblasting. He thinks they're doing a good job. They go into train cars with infrared or you bring in your own

thermometers. After a certain temperature, they get out of the train car and stop working. They also keep records on all they do, and it's a good thing to keep that in play.

**Rania Sabry-Daily** talked about the OSHA Heat app, a tool that says that measuring with the wet bulb globe temperature (WBGT) at the worksite will provide the most accurate information. The value of this app is that one can put in temperature and humidity in the environment and it gives some information about the level of risk, signs and symptoms, the things someone can do to protect themselves, etc. So, if no one can measure a temperature and humidity, then it is no longer useful. She stated that working conditions change on a daily basis with climate change and things that are happening that are out of the norm.

**Amalia Neidhardt** introduced Appendix A.

**Steve Smith** wrapped up the meeting stating that many good comments were received. The Division will review what further revisions need to be made. He again reminded stakeholders to e-mail the language that they think is appropriate by June 30<sup>th</sup> to Amalia. The legislation requires us to wrap up this effort within two years, which is a very aggressive timeline. Send any follow up ideas to Amalia and we will consider them along with what we heard today. Corey mentioned that if you believe that there are other industry specific regulations to be considered, please send them. **Amalia** added stakeholders may submit additional information on costs or feasibility. You can also send her an email to be added to the interested parties list. Steve reminded attendees to make sure to sign in on the sign-in sheet. Steve noted that minutes from today's meeting will likely be posted within the next few months.

**Kevin Bland** clarified that they were not suggesting to get rid of industries but rather to keep in mind that some industries have different needs. The outdoor heat illness defined some industries that needed different things that really didn't apply to the rest. He echoed Marti's comments to do a test run on a couple of industries to see if it works.

**Veronica Alvarado**, Warehouse Worker Resource Center, noted that heat impacts all workers regardless of industry. She agreed on the idea of test running the standard to see what industries might require extra steps. She highlighted the impact on janitors.

**Bruce Wick** echoed Kevin's comments.

Meeting adjourned.