

Smoke and Excessive Heat Rulemaking

August 19, 2021

1pm

Agenda

- Updates on changes in the draft wildfire heat rule (Gary Robertson with Oregon OSHA)
 - Break
 - Updates on changes in the draft wildfire smoke rule (Tom Bozicevic with Oregon OSHA)
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Gary Robertson with Oregon OSHA started the meeting at 1:04 pm.

Gary stated that the adopted temp rule for heat illness prevention went into effect about a month ago.

Excessive Heat

Updates on changes in the draft wildfire heat rule (Gary Robertson with Oregon OSHA)

- Gary discussed additions and removals from the current draft rule to the former version of the draft. Draft rules sent to attendees before meeting.
- Questions/comments?
 - Q. Attendee: Could more context be provided around the removal of wildland firefighting as an exempt workplace?
 - A. Michael Wood: This is part of what we looked at in developing the temporary rule. Rather it exempts or excludes, which is probably the better word, certain activities and certain requirements. Short answer is that while the control measures and their feasibility vary, wildland firefighters certainly are exposed to a significant level of smoke and the folks that argued that we should not completely exclude them seemed to have a persuasive point. That is the background for the decision as it has been made to this point. Will be subject to continued discussion.
 - Q. Attendee: (3)(a)(A) Why is only the temperature of 80 in section 3 for shade and not the humidity threshold as well?
 - A. Gary Robertson: We had added up above the language relative humidity of 40%. Same language was just not added back in to Access to Shade section.
 - A. Renee Stapleton: The temporary rule uses the heat index. Technically the same as heat index but would be interested what the group thinks in terms of heat index vs. the complexity of temperature and humidity. In regards to the language under Access to Shade being different, I think that it just a misstep.
 - Q. Attendee: Can you point stakeholders to the background materials that state that an employee who is already acclimatized must be then acclimatized for an additional 4 days?
 - A. Ted Bunch shared link in chat box:– <https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2017-124.pdf>
 - Q. Attendee: A recent NPR report based on extensive research noted that many workers who died from heat stress were relatively new to the job (often a week or two). So, appreciate that acclimatization language has been added back in.
 - Q. Attendee: How will exemption language vary between the heat illness and wildfire smoke rules pertaining to activities related to wildfire fighting and emergency response?
 - A. Renee Stapleton: I think the answer is that at this point we don't know. We are developing these rules at the same time. We are independently working through those [exemptions] rule by rule.
 - Q. Attendee: In agriculture this will cause significant workforce issues.
 - Q. Attendee: Is there mention for those providing aid to someone with heat aid or exhaustion have legal protection if they make a mistake in providing aid or miss a step. i.e. Good Samaritan clause so those do not hesitate to help.
 - A. Michael Wood: Our rules normally do not address that issue, but the Good Samaritan standard that exists in law generally is not excluded from workplace applications.
 - Q. Attendee: Heat index is first mentioned in 9(B). Using heat index would be simpler than monitoring temperature and RH separately, especially since employers have already been introduced to the concept through the temporary rule; and it's relatively easy to acquire.
 - Q. Attendee: As to concerns about going with / leaving out heat, with nursery production requiring greenhouses, at times have relative high humidity in those areas. To the extent that provisions cover

structures like that or structures that are open on the ends with plastic cover, the humidity is quite high. So, my concern is that if we rely solely on heat temperature and not on humidity, we are leaving out a significant number of workers. This might be true in other industries as well.

- A. Michael Wood: In the temporary rule, it doesn't just say temperature. It does say the heat index, which, takes into account humidity. But employers can use the heat index for the general location. There isn't a requirement to calculate it separately for locations. With regards to indoor locations, it specifically says they do not have to. In essence you are correct with regard to those potentially high humidity locations there is no requirement for the employer to separately determine the humidity as part of the determination in the temporary rule.
- Q. Attendee: I know that we differentiate for example like in a foundry and it is heat generated from that source. Leaving out the possibility of measuring what is humidity within that particular area leaves out a lot of workers. I think it is a mistake to leave out that sector of workers to the extent that we are not measuring humidity on site. What are the instruments that need to be available for employers or Oregon OSHA staff to measure the humidity at the site and how much what does it cost?
- A. Renee Stapleton: As far as cost, it probably makes a difference of what we end up with. With a heat index assessment, there are free apps available for temp and heat index. There are more complex pieces of equipment (perhaps a higher level of accuracy but also higher complication to those as well). We will be doing a full assessment on the fiscal assessment on the direction we land on.
- Q. Attendee: Acclimatization definition in Temp Rule doesn't list a time period. What you showed lists 7 to 14 (and asking again) the language recognize this is for FIT INDIVIDUALS and twice that for other less fit people. This has been shared from a variety of sources and is key IF you're requiring employees and employers to work through the process.
- Q. Attendee: The implementation of the temporary standard has really heightened the broad effect this rule potentially has. It seems excessive to include people who are doing sedentary work or those not performing physical labor. An office worker in an un air-conditioned office or teacher in an un air-conditioned classroom, the provisions of this rule will do little to help mitigate the risk if there is one. In regards to Access to Shade, this will be difficult to implement. Recommend changing this over to a hazard assessment process and employer can select the controls they want put into place.

Section 3

- Q. Attendee: Acclimatization, 7-10 days would be feasible in some areas of the state but not others. What is the employer supposed to do to get employees acclimatized for example when it gets hot for three days? Let's put in the rules that 7-14 days is for "fit" individuals. Someone who is not fit would take twice that. Gave proposed language.
- Q. Attendee: Due to wind, terrain, constant movement, there is no safe way to provide a shade shelter. We use other methods they have access to. Hope for permanent rule that access to shade is required in those areas, needs to allow for variables. Keep (d) in permanent rule, when not safe or feasible.
- Q. Attendee: (3) in a previous version there was a provision for holding pre-shift meetings when temperature is anticipated to be 80 degrees or higher or when heat wave is projected, but that section is not in the latest rule draft. Also, there were alternatives to shade when working in an area where there is practically no shade. Should be added back in latest version.
- Q. Attendee: In regards to breaks and exertion of work, doesn't seem like this is how we had it before. Is this still a break every two hours? Concern in certain circumstances is why people need the break every two hours (in regards to previous example of it being unsafe to provide a shaded area). Need to be discussing the workload and high exertion that goes along on an hourly basis with these tasks plus the heat.

Section 4

- Q. Attendee: When the temperature is 90 degrees and higher and that portion of the rule is triggered, add language that employers need to follow the hierarchy of controls (shifts changed, etc.). Under 4c, shade may not be sufficient in some cases, add in a provision to provide employees with other methods of cooling (cooling bandanas, etc.).
- Q. Attendee: With solo employees, we have a variety of communication methods. But rule language on monitoring/observance needs to be specific if this is eyes-on or monitoring where you get supervisors in touch with individuals. Also clarify if 90 is degrees F irrespective of humidity or heat index.

Section 5

- Q. Attendee: Agency needs to be clear that we are not going to be sticking thermometers into employees' personal drinking containers. Needs to be clear how employers are supposed to implement that with employees' personal water containers, in regards to employees' water/drinks being cool or cold.
- Q. Attendee: (In section 4) in a given work shift, time in the day – B and C, is it clear enough for example if up to 90 at 1:30pm and shift ends at 3:30pm, is the need for breaks every two hours starting at the point it reaches 90 or is that required at the start of the day? Just wanting to make sure this is clear in the rule.
- Q. Attendee: Is there an air temp that drinking water procedures are triggered?
- A. Gary Robertson: Starts off at 80 degrees heat index. Others triggered at 90 degrees heat index.
- Q. Attendee: If these triggers only occurred for a few hours once a year, because the heat index is below 80, it does not seem logical for employers to need to have all of these plans.
- A. Michael Wood: One way to look at it, we can give them the benefit of the doubt that if they haven't prepared to work in high heat, and they have high heat, that they suspend work. If they continued work and didn't provide these, then that is where they are in violation of the rule. Workers are more at risk in the areas that are not used to getting hot multiple days of the year.
- Q. Attendee: OR-OSHA staff... the temporary rules have been in place since July 8. What are the lessons learned so far? Are there gaps? Are there areas of confusion for stakeholders (employers and employees)? For the major changes proposed, are they based on the lessons learned from the temp rule implementation? Can you provide us with any and all data you have so far?
- A. Gary Robertson: I am not aware of that data. Renee Stapleton: we have some in process but I don't know that we have data yet to share [due to time it takes to process]. We looked as a team of things in the temporary rule and things that were not included due to complexity of adding those in the temporary rule.
- Q. Attendee: Drinking water is a basic human need so should be adequate supply in all working environments no matter what the temperature is. Should be some language added about access to drinking water, not just providing it.
- A. Renee Stapleton: These rules are in relation to heat. Drinking water is also part of other Oregon OSHA rules, that also states that water must be available and accessible.
- Q. Attendee: In this version, the role of employers seems much more passive as compared to previous versions. I am seeing a removal of requirements of employers. For example, (1)(a) ensure adequate drinking supply is not clear/specific compared to parts later in the rule.
- Q. Attendee: I am asking OSHA to recognize that acclimatization takes time and needs to be specific, not a blanket requirement.
- Q. Attendee: I want to state that it should be to provide not to control every moment of what our employees do [in regards to drinking water].
- Q. Attendee: If expecting heat to go over 90, are you counting on employers to brief with workers that they need to break when heat index hits a certain point, in a certain number of hours or minutes? How is this implemented?
- A. Gary Robertson: When outdoor ambient temperature equals or exceeds 90, is when these procedures must be followed. I suppose an employer can look out and see the forecast is going to be 97 throughout the day, but the point it hits that is hard to predict. The procedures might include that.
- A. Renee Stapleton: If heat only triggers rule for part of a shift, we need to discuss that language. Instinct is that breaks would apply in the part of the shift that hits the certain heat index. I am not aware of this in relation to the temporary rule.

Sections 6, 7, 8, 9

- Q. Attendee: In regards to drinking water. Keep in mind that there is plenty that employers can do to dissuade employees to not take proper breaks.
- A. Renee Stapleton: Rules would fall into current rules structure. Would evaluate if Serious or Other Than Serious and potential hazard.
- Q. Attendee: Acclimatization: there is a lot of ambiguity around re-acclimatized (employee on leave for example or they were acclimatized the previous summer: If they were already acclimatized, do they need acclimatized again? Do they lose that over the cooler months of the year?).

Q. Attendee: Section 8(a)(D) is not feasible in many situations (followup: vehicles may not have AC, may be in the field and away from an ACed office, schools may not have AC. Similar argument in regards to Access to Shade in some types of work. (E) adds back in that needs to be provided in all situations. (F) imposes a new requirement that is not in the rule itself. Section (H) should be in the training component, not in the plan. It is a paperwork burden to require all of this to be in writing when employers would be just following the rule.

- Q. Attendee: These plans should be made available in multiple languages.

Break

Tom Bozicevic went over wildfire smoke resources posted on Oregon OSHA website:

- <https://osha.oregon.gov/Pages/topics/wildfires.aspx>
- <https://osha.oregon.gov/rules/advisory/smoke/Pages/default.aspx>
- <https://osha.oregon.gov/OSHARules/adopted/2021/advisory-memo-wildfire-smoke-temp-rule.pdf>

Wildfire Smoke

- [Audio from attendee was inaudible.] Tom Bozicevic reminded attendees that they can add comments to the chat box during the meeting or send to the contact information on the Oregon OSHA website for heat and smoke rulemaking: <https://osha.oregon.gov/rules/advisory/heat/Pages/default.aspx> and <https://osha.oregon.gov/rules/advisory/smoke/Pages/default.aspx>
- Attendee: For training employees on heat illness, needs to be training on more than acute illness. Should also be on long-term effects of heat exposure. Also on 8(f) in heat, should be discussion on limiting work and not just on exertion. Should be mentioned in Smoke rule as well.

Tom Bozicevic reviewed additions and removals of each section. Draft rules sent to attendees before meeting.

Section 1

Asked for suggestions on date ranges. Two notes added.

Questions or comments?

- Q. Attendee: 1) Wildfire smoke rule applies to AQI 101 related to PM2.5, not other contaminants, correct? Concern is that employers will look at AQI of 101 but may not look at whether it is a PM2.5 or perhaps ozone. 2) Are you intending to use AQI or Nowcast on AirNow? Seem to be different number based on formula each site uses.
- Tom Bozicevic: 1) Yes 2) I believe it is listed as a resource. We will take a look at that.
- Tom Roick: The AQI on DEQ's AQI uses the Nowcast calculation; it is one and the same as you would see on AirNow. There shouldn't be a difference. There are different calculations for different pollutants. *Concentration* for AQI is based on 24-hour average but actual Index value is derived from AirNow. Per Tom Bozicevic, Tom Roick will be providing clarification on the use of those sources.

Sections 2, 3, 4

Clarified definitions for "wildfire smoke" and "wildlands" in this draft rule.

Questions or comments?

- Q. Attendee: [Our organization/company] strongly opposes expanding the scope of the definition for "wildfire smoke" beyond the definition contained in the temporary rule.
- Q. Attendee: Please provide some trigger for performing an Exposure Assessment (#3). DEQ forecasts possible impacts from wildfire smoke would be acceptable, otherwise it appears employers are doing this 365.
- Q. Attendee: I oppose expanding the scope of wildfire smoke to include prescribed burns and field burning.
- Q. Attendee: Under greater hazards exemptions burns are NOT limited to MAD, other utilities have flash fire hazards so perhaps going back to more generic or adding these other examples in the final rule would be appreciated.
- Q. Carol Trenga: In sections G and H, in regards to concern about smoke that may be from agriculture or prescribed burns. The prescribed rule change has exemptions for certain entities and it also protects SSRAs, populated areas from smoke intrusions. OR-OSHA should consider the health implications of that (exposure to workers from smoke that have not become wildfires).

- Q. Attendee: The training required in rule and is currently posted to Oregon OSHA website, (b) should also include language on long-term health effects and effects to more than just sensitive groups. Suggested additional resources be added to OR-OSHA website (Northwest Forest Worker Center, Western Center for Agricultural Health and Safety, University of California-Davis for farm workers) .
- Q. Attendee: Is there a significant difference in the chemical makeup in types of smoke (wildfire vs. prescribed burn)?
- A. Carol Trenga: A few factors: temperature that things are burning, controlled burns are typically burning under more ideal temperatures/conditions (often at higher temperatures), so may burn cleaner. Some studies do look at wildfire particulate matter compared to non-wildfire particulate matter. Show more severe health impacts from the wildfire-related particulates. I wouldn't conclude that controlled smoke is less detrimental to health than wildfire smoke. Also support providing more information about chronic health effects and mortality, as current information is very symptom-oriented.
- Q. Attendee: 1) AirNow fire maps include both regulatory AQI DEQ-type stations and lower-cost sensors like PurpleAir. For Oregon OSHA's purposes are all of these valid readings under the rule? 2) Why is there the exemption for wildland firefighting, including support activities in the exemption? We have heard concerns about the lack of fire-resistant respiratory protection. I see that as an issue on the fire line but not in the camps where people could be exposed to high levels.
- A. Tom Bozicevic: When we started this rulemaking, we did so on the recommendation that we use the framework of the Cal-OSHA wildfire rule that included the exemption. We have heard concerns about putting in requirements that would interfere with firefighting activities. Map: In the assessment, we allow for equivalent sources.
- A. Tom Roick: EPA's fire and smoke map is that reference. There is a data layer that does include information from PurpleAir. It expands the number of sites around the state beyond DEQ site. There are qualifiers about using this information for regulatory purposes. My recommendation is to use the EPA fire and smoke map and PurpleAir sensors to get a sense of what air quality is but then look at nearest DEQ monitors to see how much of a difference there is if any between lower cost PurpleAir and DEQ sites.
- Q. Attendee: With exempting wildland fire support in camps, doesn't make sense to exempt them. I suggest following the hierarchy of controls when possible. Providing respirators.
- Q. Attendee: In the draft heat rule, discussion of buddy/monitoring system and breaks, but I don't see that in the draft rule for the smoke rule, as in the case of the heat rule.
- A. Tom Bozicevic: The hazards are different in a sense. With heat, the buddy system makes sense.
- Q. Attendee: We support buddy system and breaks for smoke rule too. I thought Washington had some language about breaks. Also, I thought there was some discussion about using methods for firefighting camps to similar to ag labor housing with COVID in regards to reducing capacity.
- Q. Attendee: Is there a PEL for PM2.5 wildfire smoke?
- Tom Bozicevic: It triggers at 101. PM2.5 has been shown to have adverse health effects at levels below 101.
- A. Carol Trenga: There is no specific PEL for PM2.5 that I am aware of.
- Q. Attendee: the AQI uses terms like "may be" and "likely to affect" and was created more for the use of general public. Employees should be educated on the effects of wildfire smoke and given respirators to be worn as they see fit.
- A. Michael Wood: We are always talking about probability and risk and relative risk.
- Q. Attendee: Wildfire smoke is an environmental hazard that is not just in the workplace. Sending employees home is potentially no safer than continuing work and putting controls in place.
- Q. Attendee: We are concerned with dropping mandatory masking from 201 to 151. That would add a significant number of days to requirement. Masks run counter to the heat rule. Masks should be optional, should be provided to employees when requested. It is not feasible for large numbers of employees to have medical evaluations, shave off facial hair. We would have to shut down for those days.

Section 5

- Q. Attendee: Arguing for 501 to be too low of a threshold to implement respiratory protection, that number is off the charts.

- Q. Attendee: for part B, 151, would make sense for it to be any higher than that. As far as masks being hot and uncomfortable, shows the needed interplay with smoke and heat standards/threats. We should not assume that workers would be exposed to these same hazards in their homes.

Section 6

- Q. Attendee: I think we are making a mistake not adding breaks and the buddy system to the smoke rule too. Many workers may not even have a high education or speak English as their first language. Having a buddy system would help assure reporting issues more quickly. Pay attention to the demographics these rules will apply to. Assuming that employees have a cell phone etc. is not accurate.

Adjourned at 4:03pm.