

Comments on Wildfire Smoke Exposure draft rule comments – October 2022
Scott Tomren, WSU Tri-Cities

After attending the October 13, 2022 Stakeholder meeting for the Wildfire Smoke Exposure rulemaking, and review of the draft rule, Washington State University Tri-Cities respectfully requests consideration of the following comments:

- WAC 296-62-08510(1):
 1. Removing the phrase “for wildfire smoke” from this section provides no clarity. During the rulemaking presentation, it was explained that this section applies only to wildfire smoke, but this creates two potential issues:
 - a. There is nothing in the rule language that limits this to wildfire smoke. Quite the contrary, the plain language of this section makes this applicable to *any* PM_{2.5} exceeding the threshold. The title of the section is irrelevant based on this language. If it is intended to be applied solely to wildfire smoke, the purpose and scope language must make that clear.
 - b. Even if it is assumed that this regulation only applies to wildfire smoke, no explanation has been provided for how employers are to determine whether PM_{2.5} concentrations are due to smoke, or from other sources. It was stated multiple times during the rulemaking presentation that the threshold values were unlikely to be reached unless there was a wildfire “in the vicinity.” However, based actual observations, this is incorrect. In recent years, the highest smoke concentrations in the Tri-Cities region were from fires that were hundreds of miles away. The question remains, how are employers to determine whether PM_{2.5} concentrations – particularly at the lower thresholds – originate from wildfires, when there are none burning “in the vicinity”?
 2. Add “while performing work” to this section. Since these are ambient conditions, employees will be exposed outside of their work duties, including during their commute, their lunch break, and periods outside of the employer’s control.
- WAC 296-62-08510(2):
 1. Include an exemption for employees who are traveling between buildings for meetings or other non-strenuous activities. These types of exposure are identical to those experienced in normal, day-to-day activities and are inseparable from non-work activities.
 2. There needs to be reconsideration of application of this to positions like bus drivers. Asking bus drivers to wear respirators is impractical, and potentially creates risk greater than the protection it provides. There should be no requirement for anyone operating a vehicle to wear a PAPR or FFAPR.
- WAC 296-62-08530:
 1. The department should develop and provide a listing of air monitors that meet the standards described in Appendix A. There are many areas which are not near any of the defined air monitoring locations, and many employers in these areas are likely to have difficulty determining which portable monitors meet the correct standard. In the absence of more specific information, it seems likely that many will purchase and use monitors that are not suitable for the purpose.
 2. There are too many trigger levels.

Comments on Wildfire Smoke Exposure draft rule comments – October 2022
Scott Tomren, WSU Tri-Cities

- WAC 296-62-08540:
 1. Is there any guidance on how far apart the “two consecutive current PM_{2.5} readings” must be?
 2. There are too many notifications required. The current requirement creates the possibility of 5 separate notifications to employees. This will almost certainly lead to employees ignoring these messages. Recommend restricting notification requirements to only those points when employees are required to take action, for example:
 - Notify employees at 35.5 ug/cm³ that N95s are available for their use
 - Notify employees at 150.5 or 250.5 ug/cm³ that use of N95s is required
 - Notify employees at 500.4 ug/cm³ that respirators are required, or that outdoor work is being curtailed.
 3. On what basis is the requirement raised to require FFAPR or PAPR at 555 ug/cm³? There’s very little concentration difference between this threshold and the point at which APR are first indicated (555 v. 500.4 ug/cm³), which does not appear to justify the increased requirement, the additional fit test, or the burden to the wearer.
 4. The rule notes that the environment inside an FFAPR must be less than 55.5 ug/cm³. If this level is allowable, there should be no regulation established at an ambient level that is lower.

General comments

- Previous comments pointed out that employers would be forced to meet these requirements *before* wildfire season, even in years when smoke conditions never actually require protections. The most recent changes to the rule have made this burden worse, as it will now require two fit tests – one for half-face APR and another for full-face.
- 296-62-08580 effectively ignores the “hierarchy of controls” concept. It mandates provision of PPE at threshold levels without consideration of the possibility of engineering or administrative controls. Accommodating these alternatives would protect employees without creating requirements for continuous monitoring of PM_{2.5} concentrations and adjustment as various trigger values are reached.
- Including outdoor workers within the definition of “sensitive groups” is not appropriate. “Sensitive groups” are typically those who have diseases or conditions that make them more susceptible to health risks, it is not based on exposure level.
- The research articles provided on the rulemaking website do not provide strong basis for regulation. They reinforce the knowledge that people with conditions such as asthma and COPD are more likely to have adverse reactions to wildfire smoke, as are young children and the elderly. They do not indicate a major concern among the working population, nor a need for increased regulation of general employees. Such vulnerable employees should be encouraged to communicate with their employers, and accommodations offered *for those employees*. No regulation for other employees is indicated.
- Smoke should not be regulated more strictly than other emissions such as welding fumes, which already have an established Permissible Exposure Limit (PEL) under WAC 296-841, Airborne Contaminants, unless research indicates that it has a similar toxic effect to the average worker. The research provided fails to do this.

Comments on Wildfire Smoke Exposure draft rule comments – October 2022
Scott Tomren, WSU Tri-Cities

- If exposure limits are established for smoke, they should rely on a time-weighted average, rather than discrete concentrations. The exemptions in WAC 296-62-08510(3) effectively provide short-term exposure limits, without corresponding PEL values. The explanation that TWAs are not practical because smoke levels change does not excuse using discrete concentrations, as employers will need to track concentrations anyway.
- The higher exposure threshold (250.5 ug/cm³) should be used. This remains well below the existing PEL levels for other particulate contaminants, and should reduce the burden on employers by mandating full respiratory protection less frequently.
- Mandating use of an N95 at any concentration moves this outside of voluntary use. Exempting this from respiratory protection requirements creates a point of conflict between DOSH rules, as well as potential liabilities for the employer. At *minimum*, the trigger level for mandatory N95 should be at 250.5 ug/cm³. Preferably, any mandatory respirator use should be at a higher level (or based on a TWA), and subject to the requirements of the Respiratory protection standard.
- This rule will create a significant burden for minimal benefit. It will be difficult to implement, especially for employers with many employees spread over a large area, multiple locations, or with a wide variety of duties. Its primary benefit will be to a small number of employees with certain conditions that make them vulnerable, and who can be reasonably protected under existing processes.
- Further, it attempts to protect workers from ambient conditions, to which they will continue to be exposed during non-work periods outside of the employer's control. The likelihood that these employees will continue to wear respirators outside of working hours is near zero, so it is also unlikely that any reduction in health impacts to these employees is similarly minimal.