

August 27, 2019

Eric Berg, Deputy Chief of Health
Cal/OSHA
1515 Clay Street
Suite 1901
Oakland, CA 94612
eberg@dir.ca.gov

Amalia Neidhardt, Senior Safety Engineer
Cal/OSHA
2424 Arden Way
Suite 495
Sacramento, CA 95825
aneidhardt@dir.ca.gov

“UPDATED”

RE: Permanent Regulation re Wildfire Smoke Protections

We, the undersigned organizations (Coalition) have significant concerns regarding the Proposed Revisions to Emergency Regulation Section 5141.1 (Emergency Rule), developed by the Division of Occupational Safety and Health (Division) that is in effect and dated August 13, 2019, regarding “Protection from Wildfire Smoke,” numbered Section 5141.1 (Discussion Draft Rule).¹

The Coalition is greatly concerned about the practical feasibility of the Discussion Draft Rule, as well as its clarity. Some of these concerns stem from the changes made in the Discussion Draft Rule, and some stem from issues inherent in the present emergency regulation’s text, which formed the basis for the Discussion Draft Rule.

It is our understanding that the Discussion Draft Rule contains two sets of proposed changes: those to be implemented in the approaching permanent rule (in black) and those for consideration at some time subsequent to the initial adoption of the permanent rule (in red). We have addressed both below, but would urge the Division to ensure that a thorough discussion is given to the more urgent changes/immediate issues (Section I, below), and that the more structural changes proposed in red intended for a long-term discussion (Section II) do not prevent discussion of the smaller, but more immediate adjustments. Finally, Section III details our procedural concerns with the overall process of this emergency and final rulemaking.

I. Proposed Discussion Draft Rule & Minor Changes to Make the Emergency Regulation Permanent

The following issues are those that relate to the most recent Discussion Draft Rule’s changes, or that we hope can be addressed urgently in the Discussion Draft Rule, as they represent ongoing issues from the Emergency Rule.

A. Section (d) Should Permit Use of Existing Air Quality Monitoring Infrastructure

The Discussion Draft Rule’s section (d) – Identification of Harmful Exposures – provides that an employer may determine whether the AQI for PM_{2.5} is below 151 via an identified list of methods, including checking the AQI from a government body ((d)(1)/(2)), or measuring at the worksite ((d)(3)).

This present language does not authorize (and therefore effectively prohibits) utilizing air quality monitors which are closer to the worksite than a government monitor, but not literally on site, because there is no provision allowing a business to utilize such nearby monitors.

¹ Unless otherwise identified, all references to any subsection, such as “Subsection (a)” refer to the Draft Text.

For example, AB 1647 (2017-2018) required installation of air quality monitoring devices at refineries in California. Though these monitors may be closer to the worksites than the AQI monitors feeding the permissible websites, these monitors are not permitted under the Discussion Draft Rule. In order to allow businesses to utilize existing air monitoring tools that are already in place, we ask that section (d) of the Discussion Draft Rule be amended as follows:

(3) Measure PM2.5 levels at, **or within a reasonable proximity of,**² the worksite and convert the PM2.5 levels to the corresponding AQI in accordance with Appendix A.

Or, alternatively, we propose adding the following subsection:

(4) Obtain air quality data from air quality monitoring devices within a reasonable proximity of the worksite and, if necessary, convert the PM2.5 levels to the corresponding AQI in accordance with Appendix A.

We believe this change is reasonable given that such pre-existing monitoring equipment may be closer than the AQI monitoring equipment relied upon for the permissible government websites identified in Subsections (d)(1) & (d)(2), and therefore preferable, while also being more economically efficient than installing air quality monitoring equipment when such equipment is already in place.

B. Translation-Related Issues with the Text and Appendix B

Though we appreciate the Division providing translations in three languages of the regulation, we urgently request that the Emergency Rule be translated into additional languages. At the time of this letter, pursuant to Subsection (e) of the Emergency regulation, employers are required to provide Appendix B and “effective training and instruction” on its contents – but may not have any version of Appendix B that can be understood by workers. As a result, neither employers nor employees benefit from these limited translations. In order to ensure that Appendix B’s benefits are effectuated (quickly providing information to workers who may soon face wildfire smoke hazards), we would ask for additional translations in at least Chinese, Tagalog, Punjabi, and Vietnamese, as common languages in California.

C. Substantive Issues with Appendix B

Appendix B remains ambiguous in key areas and will prove confusing to employees as a result. We urge the Division to consider revisions to clarify Appendix B’s application prior to the adoption of a permanent regulation, not delay such corrections until a future date.

- i. Appendix B should not mention or suggest requirements which are not part of this rulemaking.

Appendix B should not mention issues or solutions which are not part of this rulemaking, as such mentions only serve to confuse employers and employees. For example, Appendix B still suggests that “Loose-fitting powered air purifying respirators may be worn by people with facial hair . . .” However, neither the present Emergency Rule, or the Discussion Draft Rule, requires employers to stock or provide such respirators. On a financial note, this is important, because such respirators cost significantly more than non-powered, N95 respirators.³

Predictably, employees with facial hair may review Appendix B and say, “I do not want to shave, so I would like a powered air purifying respirator.” Employers will all be forced to contact counsel to determine if this is required, given its mention in a government-provided form. Then, presumably after speaking to counsel,

² We utilize “reasonable proximity” here, as opposed to a specific distance, in recognition of the fact that different AQI meters may be different distances from worksites, making a privately-operated air quality meter preferable at different distances – so establishing any absolute distance standard would be a matter of form over function.

³ Generally, powered air respirators costs range from hundreds of dollars to over one-thousand dollars, making providing them a significantly different burden as compared to disposable N95 respirators.

the employer will be forced to respond, “we don’t have those, and the law doesn’t require we have them,” to which employees will quickly say “What do you mean? This document, Appendix B, says I should have one because I have facial hair. What do you mean you don’t have them?” And employers will be forced to explain that, though a government prepared form says they “should” have one, it is actually not required or even suggested in the applicable regulation. This is an entirely unnecessary and unproductive discussion, but the present text of Appendix B will force employers to have it repeatedly.

- ii. Appendix B should address what will occur at the mandatory respirator threshold.

Similarly, Appendix B entirely does not address the event most likely to create conflict between employers and employees – mandatory requirements at the appropriate AQI threshold. We would like to see Appendix B warn employees, for example, that in order to work at an AQI of 500: (1) they may be required to shave their face in order to continue working, as this is required for functionality of some respirators; (2) that employers may opt to provide required medical evaluations and fit-testing, or may cease outdoor operations. Though these two items are not an exhaustive list, we believe the topic of “what will occur at the mandatory respirator threshold” should be included in order to advise employees of what to expect – as this is a critical threshold for the regulation and will involve events that employees may not be happy with, such as being sent home or being forced to utilize protective equipment they may not want, or potentially shaving facial hair that they value if they want to continue to work.

For example: one foreseeable situation where such information would be helpful might occur when an employer is forced to tell a Sikh employee that his beard means he cannot wear a fit-tested and medically evaluated respirator (assuming the employer has chosen not to purchase the more expensive powered respirators), and so he cannot continue to work because the AQI has reached 500. Without such clarity, the employee may (with some good reason) ask if they are being discriminated against by their employer – where, in fact, the employer is legally required to treat them differently due to their beard by this regulation.

In short – Appendix B’s entire purpose of clearly and quickly explaining critical time-sensitive safety-related information to employees should not be undercut by ambiguity or by leaving out critical, straight-forward explanations that employees need.

- iii. Appendix B should be consistent internally with its language.

In addition, as a matter of drafting, the Discussion Draft Rule Appendix B utilizes two different descriptions of the languages that information must be made available in. In Section (e), employers are required to provide information in a “language and manner readily understandable by all affected employees.” In contrast, in Section (f), employers are required to provide training and instruction “in a language easily understood by employees.” For consistency and clarity, we would ask that parallel language be used between these two provisions.

D. Scope Should Incorporate an Objective Trigger

We are concerned that the present formulation of Section (a)(1) in the Discussion Draft Rule maintains a flaw in the Emergency Rule - there is no objective trigger to inform employers that a wildfire is causing the elevated AQI. The Discussion Draft Rule presently relies on an elevated AQI and also requires “[t]he employer should reasonably anticipate that employees may be exposed to wildfire smoke.” (emphasis added). As we have noted in previous comments – this standard is so vague as to leave our members with no clarity as to what is required. In the event of an AQI above 150, are they to smell the outside air for smoke? To look around for a plume of smoke? To google “California wildfire” and see if there is some reporting on a nearby fire? As phrased, we cannot determine what would be sufficient – and thus the businesses of California will struggle to even determine when this regulation applies.

We would request that Section (a)(1) be amended to include reference to existing sources of information, such as CalFire’s incident website⁴ - which reflects wildfires above 10 acres and appears to be updated with reasonable frequency.

⁴ <https://www.fire.ca.gov/incidents/>

II. Proposed Substantive Changes for Later Rulemaking

A. AQI Thresholds Should Remain at 150 and 500

The Discussion Draft Rule contains significantly lower AQI thresholds for PM_{2.5}⁵ than the Emergency Rule. These new proposed thresholds are overreaching, will not benefit workers, and will result in shutdowns of considerable swaths of California's economy during wildfires.

i. The Mandatory Respirator Threshold Should Remain at 500.

Regarding shifting the mandatory respirator threshold from 500 to 300 AQI: it should be noted that the burden on employers to comply with this threshold is considerable. Fit testing takes approximately 15-20 minutes, and requires that employees shave their facial hair.⁶ As discussed at the prior advisory meetings regarding the Emergency Rule, many employers perceive employees to enjoy their facial hair, and are concerned that demands of employees to shave their facial hair, especially in an urgent manner, are deeply problematic. In addition, hair styles, including facial hair, can enjoy protection under anti-discrimination laws,⁷ adding additional litigation risks in the event that employers are forced to ask (or compel) employees to shave their facial hair. Moreover, medical evaluations require individual assessments by a physician or licensed healthcare professional considering the individual's health, job responsibilities, respirator type, and conditions.⁸ Accomplishing these feats for hundreds or thousands of employees in the event of a wildfire is logistically infeasible.

Notably, this leaves many businesses with two options: either (1) keep all employees shaved, fit-tested and medically evaluated year round – which is obviously problematic as a matter of cost and as a matter of personal autonomy – or (2) close down when this threshold is reached, sending employees home where they may have no respiratory protection at all. We believe the latter option is the worst case for both employers and employees, particularly if the standard is lowered to the 300 AQI level, where businesses would shutdown and send employees home without protection much more often.

For example: during wildfires in late 2018, Sacramento's AQI for PM_{2.5} has, depending on the day, reached above 300.⁹ This means that, under the proposed 300 threshold, generally every business in Sacramento – if your doors were ever open or workers were outside for more than an hour – would have been required to close or conduct infeasible fit testing and medical evaluations. Our quick research indicates that Sacramento contains approximately one million working people. Assuming a quarter of those workers are outside for more than an hour in their day, that would require closure of testing and evaluation for 250,000 workers, at a cost of approximately \$125 per employee for both tests.¹⁰ That means that one day's briefly elevated AQI (above 300) would have resulted in costs of approximately 30 million dollars for Sacramento's businesses – or else they would all close, sending home workers without respiratory protection. Admittedly, this was not a common occurrence – but its rarity only compounds the likelihood that workers will be sent home. It is simply not feasible for every Sacramento area business to fit test and medically evaluate every employee in case of those exceedingly rare days.

In addition, the above analysis does not take into account the effect on Gross Domestic Product resulting from shutdown. For example, the annual GDP of the Sacramento region is \$128 billion per year, or approximately \$128,000 per worker, annually.¹¹ If we assume one quarter of those workers would fall under

⁵ Unless otherwise identified, all references to "AQI" are intended to refer to Air Quality Index readings for PM_{2.5}, and not other potential air quality hazards.

⁶ https://www.osha.gov/video/respiratory_protection/fittesting_transcript.html

⁷ In addition, pending legislation (SB 188 – Mitchell) may expand protections for hairstyles.

⁸ https://www.osha.gov/video/respiratory_protection/medevaluations_transcript.html

⁹ Notably, using www.arb.ca.gov, we were able to identify the Sacramento T Street sensor, located downtown and within walking distance of the Capital Building, peaked at an AQI for PM_{2.5} of 368 on November 11, 2018. On that same date, the Del Paso Manor station peaked at 447.

¹⁰ This estimate, \$125 for fit testing and medical evaluation, may be low, but serves for ease of computation. Also, notably, this ignores the time necessary to test each employee and the availability of en masse testing.

¹¹ <https://www.sacbee.com/news/business/article175311206.html>

the rule, we can estimate the local GDP reduction for any single day which workers are sent home is approximately \$121 million per day, due to this regulation.

For that reason, we believe the 500 threshold is appropriate. It ensures that employees have access to respirators at lower levels (beginning at 150 AQI), and will continue to have access to respirators up to an AQI of 500. Simultaneously, it also recognizes the massive disruption that a 300 AQI would pose to our state's economy – potentially shutting down even urban areas.

ii. The Voluntary Respirator Threshold Should Remain at AQI 150.

First, when considering lowering the AQI threshold to 100, we should keep in mind that an AQI of 100 is not calculated as what is dangerous to a sensitive individual over an eight-hour period, as with comparable Permissible Exposure Limit (PEL) calculations traditionally used by Cal/OSHA. Instead, AQI is calculated based on assumptions of 24-hour exposure, as noted in the Amended Proposed Petition Decision. So, at a basic level, employee exposure over one hour (the threshold for the regulation's application) is not what AQI was designed to measure, and caution should be used when applying a 24-hour average exposure standard to a 1-hour time window.

Second, we would ask the Division to remember that this regulation was intended to address wildfire smoke exposure for outdoor workers, broadly speaking, not to overprovide respirators where none are necessary. Because employers do not want to identify or single-out vulnerable individuals, Subsection (c) of the Discussion Draft Rule forces employers to supply respirators to all of their workers – the vast majority of which are not in danger – and thus wastes respirators and adds costs for businesses across California.

Third, lowering the AQI threshold to 100 will result in more confusion over when the rule is triggered because AQI 100 is much more common than an AQI of 150. As noted above, one of the Coalition's broad concerns is that, without an objective trigger for the regulation related to wildfires, employers are left uncertain as to whether they should "reasonably anticipate" a wildfire is causing the AQI increase. Without clarity there, lowering the AQI threshold to 100 means more uncertainty for employers. For example, the San Joaquin Valley area experiences approximately 30 days per year with an AQI above 100. On each of these days, under the present Discussion Draft Rule, employers would be forced to undertake undefined measures to determine if the AQI was due to unrelated air quality issues, or due to wildfire. In contrast, if the AQI threshold is maintained at 150 – a level which protects the vast majority of the population – then there is less likelihood of ambiguous AQI triggers because a 150 level occurs rarely without a wildfire occurrence.

B. Creation of New "100-150 AQI Tier" Is Pointless and Unnecessarily Complicates the Discussion Draft Rule

We believe the addition of a new tier of obligations (100-150 AQI) is not productive and adds unnecessary complexity to this rule. As a preliminary matter, we do not believe an expansion of the rule to include AQI's as low as 100 is justified, as discussed above. However, more broadly, the creation of this additional tier is ambiguous and should be clarified.

First, the 100-150 AQI tier, as drafted, claims to waive the application of two Subsections ((d) and (e)) but will in fact not change the burden on employers. Looking to the Subsection (d) – which requires employers to monitor the AQI at the start of each shift via identified methods – employers will still have to monitor the AQI, because employers still have the obligation to determine whether the regulation is triggered. Similarly, Subsection (e) – which requires employers to provide information on the AQI to employees at the start of their shifts and establish a communications protocol to do so – is also inherently already required, as Subsection (c) will require employers do all that Subsection (e) would have required: "establish and implement a system for informing employees [of the AQI]" to provide Appendix B (See Subsection (c)(1) and (c)(2)).

Second, as to Subsections (f) and (g) – the Discussion Draft Text is not clear as to the difference in application that this change would create, and we would appreciate dialogue with the Division on these points. For Subsection (f), we are interpreting the intent is to provide Appendix B with no additional training of any sort in this AQI range, then require training once the AQI rises to 151. If so, this may be an illusory benefit, as many companies will not want to save training until a wildfire occurs. Similarly, with Subsection

(g) – is the intent here to authorize companies to ignore the present hierarchy of responses (engineering, administrative, then respirators) when the AQI ranges from 100-150? We would appreciate a dialogue to truly understand the Division’s intention on these issues, so that we can comment effectively on whether these alternatives are helpful to the business community – and hope that such a dialogue can be had in the upcoming advisory meetings.

C. Minimum MERV levels

We are greatly concerned with the implications of incorporating minimum MERV standards into the Discussion Draft Rule related to vehicles and structures. First, the inclusion of a requirement for all indoor workplaces to prove a MERV filtration level or else comply with the regulation’s terms for outdoor workers is a massive expansion of the application of this rule, and goes far beyond the authorizing petition. Second, we have considerable concern that air filtration units are not so standardized between structures and vehicles that they are easily interchangeable, making any broad rule inherently problematic.

As the Discussion Draft Rule was only released August 13, 2019, and we have not had time to complete the comprehensive analysis necessary to fully comment on the scale of this change, its costs, and its effects, below is provided a list of variables which we believe should be considered by the Division in this area:

- The present levels of MERV filtration are already in existence across the state
- The effectiveness of different MERV filtration devices, as compared with voluntary respiratory use (comparable to the AQI 150 requirements)
- The effectiveness of different MERV filtration devices, as compared with medically evaluated and fit-tested respirator use (comparable to the present AQI 500 requirements)
- The cost of upgrading filtration in every commercial building across the state to any given MERV level
- The present levels of filtration in the commercial vehicle fleet across the state
- The costs to upgrade or replace the vehicle fleet to different MERV thresholds
- The time necessary for such upgrades to be **undertaken** across the state
- Differences in MERV/filtration feasibility in vehicles vis-à-vis structures, related to size, shape, and other physical constraints

D. Arc Flash Rating Standard

While we appreciate the addition of a section related to arc flash hazards based on the comments at the Standards Board’s most recent meeting, we are concerned that the text contained herein is too vague. As phrased, it requires that the employer “demonstrate[] that employees are exposed to arc flash hazards” – which should be feasible – “and that arc-rated face shields, or hoods worn over a respirator, would create a greater hazard to the employee than exposure to PM2.5 without a respirator” – which is problematic.

Asking an employer to compare the harm from (1) potentially fatal or debilitating burns related to arc flash to (2) the more gradual potential harm of PM2.5 exposure is like comparing apples to oranges. One is quick and potentially fatal, if it occurs. One is gradual and differs greatly depending on the specific AQI level and duration of exposure, but the duration of exposure in a changing hazard (such as wildfires) is difficult to foresee. Taking these two extremely different risks, then asking employers to demonstrate that the one would comprise “a greater hazard to the employee” creates an ambiguous and potentially impossible burden.

Though there is no easy solution to this issue, we believe that a broader exception for emergency assistance workers can be re-integrated into the Discussion Draft Rule, or a clearer standard can be incorporated specifically related to arc flash hazards.

E. Hierarchy of Controls Remains Problematic

Though this issue is not new to the Discussion Draft Rule, we remain concerned that the hierarchy proposed in Subsection (g) is inherently problematic because it is impossible to calculate relative feasibility of different control measures in the context of wildfires. Whereas the prioritization of engineering and administrative

solutions is workable with known or predictable hazards, wildfires are inherently an unexpected event, which persists for an unknown duration – depending on firefighting resources and weather conditions. These unknowns – frequency of occurrence, location, intensity, duration – make even calculating whether an administrative or engineering control is “feasibly” impossible. For example, how can an employer compare the relative costs and benefits of constructing a sealed tent over a worksite when the employer cannot know how long it will be needed, or which worksite would need the tent? And, once a wildfire has commenced, how can employer do such feasibility calculations without knowing how long the wildfire will last? Simply put, there are too many ambiguities for this sort of comparison of feasibility – and, as such, it should not be included in the regulation.

In addition, we are concerned that – in many of the primary outdoor situations which the Discussion Draft Rule is intended to cover – administrative and engineering solutions are facially inapplicable. Administrative solutions (such as relocating work) are not feasible in industries where the work simply cannot be moved. Construction must take place *at the construction site*. Amusement parks cannot be relocated. Agricultural work *must* be done in the field. Rest breaks are similarly of unclear value in a smoky environment, and transporting a worker away from smoke is similarly infeasible when the worksite is outdoors and not necessarily near any indoor environment. As to engineering solutions – building a tent or some similar apparatus over a moving group of workers (common in agriculture) is facially absurd. Because both engineering and administrative controls appear to be commonly infeasible in the outdoor context, we urge that they should not be given priority over respiratory protective equipment – as demonstrating their infeasibility is a burden on employers that simply is not necessary. Instead, we believe the only feasible solution is that all solutions – engineering, administrative, or respirators - be given equal status.

III. Procedural Concerns Regarding the Emergency

We are concerned with the apparent intent of moving quickly through to the passage of the permanent rule with (purportedly) minor changes, and then addressing most issues subsequent to a permanent rule being in place. As a matter of process, both our members and the Standards Board expressed discontent with the rushed final stages of the emergency regulation’s passage and the resulting substantive issues therein. To base the permanent regulation’s text on this rushed framework, then rush the permanent regulation into place without an opportunity for a thorough review and revision is procedurally and substantively concerning. We hope that the Division and the Standards Board will, to the best of their abilities, preserve the opportunity for a thorough consideration of the Discussion Draft Rule prior to passage into a permanent rule.

Finally, we would ask the Division to allow for a dialogue at future advisory meetings related to this and all other rulemakings, in line with the comments by the Standards Board and affected parties at the July Standards Board meeting. We hope that such dialogue will promote effective communication and clarity of thought between stakeholders and the Division staff, leading to a more clear and effective regulation.

Signed,



Robert Moutrie
California Chamber of Commerce

African-American Farmers of California
American Composites Manufacturers Association
American Pistachio Growers
Associated General Contractors
California Association of Boutique & Breakfast Inns
California Association of Sheet Metal and Air Conditioning Contractors, National Association
California Association of Winegrape Growers
California Attractions and Parks Association
California Broadcasters Association
California Building Industry Association

California Citrus Mutual
California Cotton Ginners and Growers Association
California Farm Bureau Federation
California Forestry Association (Calforests)
California Framing Contractors Association
California Hotel & Lodging Association
California League of Food Producers
California Professional Association of Specialty Contractors
California Restaurant Association
California Retailers Association
Construction Employers' Association
Hotel Association of Los Angeles
Long Beach Hospitality Alliance
Motion Picture Association of America
National Elevator Industry, Inc.
Nisei Farmers League
Painting and Decorating Contractors of California
Residential Contractors Association
Walter & Prince, LLP
Western Agricultural Processors Association
Western Growers Association
Western Steel Council
Wine Institute

RM:ldl