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In regard to the proposed Protection from Wildfire Smoke regulations (8 CCR §5141.1), on behalf of Contra Costa Water District (CCWD), I would like to submit the following comments. As a public water utility, our agency and employees face several specific challenges when responding to events during wildfire smoke events, several of which are common to the utility industry as a whole. CCWD seeks a clear regulation that protects employees, while still allowing our agency to provide an appropriate response to these emergencies.

Below outlines several concerns and comments regarding the most recent discussion draft of the proposed Protection from Wildfire Smoke regulations.

1. *Exemptions identified in section (a) 2.*

During wildfire or urban fire events, water is utilized as one of the primary fire extinguishing methods. Where water infrastructure exists, water utility personnel are typically called upon by responding fire agencies to ensure adequate water flow can be provided to the specific fire location. While some of this work can be done remotely, physical on-site support by water utility employees may be required to turn valves, start generators, troubleshoot equipment, and provide on-site support to the field incident commander. Public water utility employees are designated as "Disaster Service Workers", per California Government Code Section 3100-3109, and may be assigned a variety of disaster service activities by their superiors or by law. "Disasters" can be designated on the local, regional, state, or national level.

In addition to water, power supply is needed to ensure water pumps are able to function and pump water to where it is needed. While many water systems in California operate on a gravity system, nearly all require pumping to reach specific areas. In many cases, hillsides and remote areas, which are more prone to fire, rely on pumping to achieve adequate fire flows. In these cases, employees from power utilities are also called upon during fire emergencies to provide on-site response and support to fire fighters.

Further complicating water utility responses during these events are the unrelated emergencies that may arise, including water main breaks, hit hydrants, equipment issues, and pump failures. These events occur with some regularity and are unrelated to a wildfire event. For example, during the North Bay Fires, while the fires degraded air quality for two weeks, utility personnel still responded to these other emergencies which were dozens of miles outside the immediate fire area. Additionally, during

these wildfire air quality conditions, additional critical work still needs to occur, including responding to water leaks, water quality sampling, and critical equipment repair. Much of this work requires time-sensitive responses that are governed by state or federal law.

The proposed 5141.1 revisions may have the following impacts on the utility industry and CCWD's ability to appropriately provide needed services to the community:

- a. Negative or unknown water quality impacts due to delayed responses in water quality sampling and water leak repairs;
- b. Customers without water service;
- c. Private property damage caused by water leaks that cannot be responded to;
- d. Decreased water flows for fire protection; and
- e. Unmarked underground utilities lines, resulting in damage, fire, or injuries.

As currently written, section 5141.1 identifies several groups of employees which may be exempt from the section. While section D and E identify emergency responders, both clearly leave out utility employees that may be providing emergency support for firefighting activities and providing other emergency community services. I propose that a subsection F be added to the exemptions listed under section (a) 2. to read the following:

(F) Water and power utility emergency response personnel aiding in firefighting support operations or responding to other utility emergencies.

The addition of this exemption would ensure that water and power utility employees are able to adequately respond and support fire fighters during wildfire events and additionally continue to respond to water and power system emergencies that may be unrelated to the wildfire event but still require emergency response by water utility employees.

2. (a)(1)(A) – *section application.*

This section does not specify that the AQI of 100/151 for PM 2.5 only applies during wildfire events. As a result, for times of smog and other poor air quality may result in implementation of this regulation, which was designed for an emergency.

- a. Comment – Add language to clarify that the AQI of 151 or greater for PM 2.5 applies during wildfire smoke events only.

3. (a)(1)(A) – *Lowering the AQI for PM 2.5 from 151 to 100.*

Currently medical accommodations for “sensitive groups” as an AQI of 100 is defined; however, these are currently handled through workplace American with Disabilities Act (ADA) accommodations through the interactive process. This process allows specific, individual medical needs to be reviewed and supported. When used, as required by law, this process provides excellent protection to employees with specific medical needs. Including this group in the general requirements may result in less specific accommodations made for those that need it. Additionally, tailoring an exposure threshold to a sensitive medical group in Title 8 sets a precedence that is unique from other Permissible Exposure Limits and other exposure thresholds as currently defined.

- a. Comment – Keep the AQI trigger at 151, which addresses the general population, as is consistent with other Cal/OSHA health triggers, such as Permissible Exposure Limits.

4. (a)(2)(B) – *Requirement for MERV filtration for buildings and vehicles.*

MERV filtration is technology not currently used in vehicles or equipment. Additionally, older buildings with older HVAC systems cannot accommodate MERV filters and would be cost-prohibitive to upgrade, while providing little data-supported improvement in indoor air quality. Adding MERV-rated filters to systems for which they were not designed can create pressure drops, use more energy, reduce air flow, and provide less temperature regulation. All of which are costly and can create additional issues, including creating a risk of indoor heat illness should the HVAC system fail. Additionally, for employers that send employees to facilities owned by others, gaining an understanding of the filtration system of that building may be difficult to impossible to achieve.

- a. Comment – Do not include requirements for MERV filtration in the emergency or permanent regulation as it requires additional building assessment requirements and/or investment that are out of line with demonstrated smoke-related indoor air quality improvements.

5. (a)(2)(D) – *Employees exposed to a current AQI of PM_{2.5} of 100/151 or greater for a total of one hour or less during a shift.*

Dosing information would be helpful to determine why a time of one hour was chosen. As AQI is not necessarily related to dose, the one hour seems arbitrary. One of the first questions safety staff will be asked by employees will occur when employees need to be outside for 90 minutes and inquiring what their exposure will be.

- a. Comments – Provide dose or other calculated data used to determine one-hour threshold.
- b. Without further information, recommend increasing exposure time to two hours, which is more reasonable for completion of small, routine tasks.

6. (a)(2)(C) – *Use of the word “worksite” when measuring PM_{2.5}.*

Remote facilities and jobsites within our service area can be tens of miles apart. As such, in some cases, employees will be working very close to local Air District air quality monitors and in others they could be over 20 miles away. If CCWD chooses to conduct its own air monitoring, in accordance with Appendix A, it is preferable to utilize that data for employees working remotely in closer proximity to CCWD's monitoring point than the location monitored by our local Air District. For example, for CCWD employees working in Oakley and Brentwood, the closest Air District monitors are located in Walnut Creek, over 27 miles away. If CCWD conducts PM 2.5 monitoring at a jobsite in Oakley, another jobsite in Brentwood, which is 2 miles away, would benefit from utilizing the more accurate and location specific air quality data. Utilizing the word "worksite" in the regulatory text implies that the data can only be used at a specific jobsite.

- a. Comment – Update section language to read, *The employer demonstrates that the concentration of PM2.5 in the air does not exceed a concentration that corresponds to a current AQI of 100/151 or greater by measuring PM 2.5 levels at the worksite, or within the vicinity to the worksite which provides a more location-specific reading than local Air District air quality monitors, in accordance with Appendix A.*
 - i. *Utilizing PM 2.5 readings should be distinct for each geographical region. During the North Bay Fires smoke was observed to accumulate non-uniformly, such as in valleys, or was stratified at different elevations.*
7. (g)(4)(A) and (g)(4)(B) – *Where the current AQI for PM2.5 is equal to or greater than 100/151, but does not exceed 300/500.*

CCWD is concerned with lowering the mandatory respiratory protection threshold from an AQI of 500 to 300. During the 2017 North Bay fires, outlying areas dozens of miles away from the fires experienced AQI at or above 300. During these conditions, utility emergency work still needed to occur, including responding the water leaks, equipment failures, and conducting state and federally mandated water quality sampling. For example, both the state and federal total coliform rules require our utility take 30 bacti samples per week in our system to verify our system maintains proper disinfection to demonstrate water is safe to drink. There is no exception to this regulation. For water main breaks, water quality sampling is required to ensure acceptable water quality before being put back in service. Without that return-to-service sampling, entire sections of the system may have to be isolated, resulting in impacts listed under item 1 of this letter.

Wildfires are generally emergency, short-term, infrequent events. As such, providing program exemptions to employers (such as an exemption from fit testing) ensures employees are able to respond appropriately to emergencies is paramount.

8. *General comment regarding Mutual Aid responders*

- a. During emergency events, utilities and other public agencies will call for Mutual Aid assistance from other agencies from outside the area, often outside the state. These groups will not be prepared to comply with this standard, particularly the respiratory requirements if the AQI is lowered to 300 for mandatory respiratory protection.
 - i. Comment – Mutual Aid workers should comply with the occupational guidelines from their state of employment.

9. *General comment regarding cost of regulatory compliance*

- a. Although cost is not a driving factor for compliance with regulations at CCWD, I would like to share the estimated costs for CCWD to implement the regulation, including if the AQI threshold for respiratory protection is lowered from 500 to 300.
 - i. CCWD currently employs 290 employees. The cost of general training for all employees on this program is estimated to cost \$7,250 per year.
 - ii. Initial program implementation costs for 100 field employees to be added to the respiratory protection program is estimated to cost \$38,900.00, and \$42,700.00 annually thereafter.
 - iii. As a result, total initial program implementation costs are estimated at \$46,150.00 and total annual program implementation costs are estimated at \$49,950.00.

Thank you for your consideration,



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