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To: [Ireland, Cynthia D. \(LNI\)](#)
Cc: [Cass, David \(PARKS\)](#)
Subject: FW: LNI Wildfire Smoke Rulemaking
Date: Friday, October 21, 2022 3:52:53 PM
Attachments: [image001.png](#)

Hello Cynthia,

Thank you for thinking about and taking feedback on air quality regulations to keep workers healthy.

Feedback from my staff on the proposed rules:

"I'm not sure masks would have the desired effect while working in the field... I think the only feasible way to combat the negative side effects from smoke is to limit exposure, which is equally difficult. I don't know what the long term effects of working in it are, but to date I go until I get a bad headache, or congestion and eye irritation make unsafe to operate a chain saw."

"Any ruling/gear that would impede our performance and therefore safety, should be tested, confronted and challenged if necessary. Don't get me wrong, I like that someone cares about air quality and its effects on our health, however a semblance of care just to check of the boxes is not the same as actual effective real world solutions."

Credibility

While developing the rules, and in partnership with industry practitioners, the outcome will be most successful when including options, thresholds, or tolerances that reflect actual working conditions and support for implementation by workers and managers. Onerous regulations set at too low an AQI, while aimed at protecting workers, could backfire through lack of perceived threat to personal health and therefore lack of compliance.

Part of building this support should come from medical interpretations of smoke inhalation impacts. The AQI helps illustrate, but **a critical threshold should be established where irreversible lung damage would occur**. In discussing this with a family practice physician, an analogy was made to cigarettes. Smoking two packs per day for decades is not unheard of, exposing a smoker to persistent unhealthy levels of smoke for decades. Smoking two packs one time, or for a week, (while unhealthy) will not likely have the same long term effects. Tolerances for duration and level of exposure should be developed in conjunction with medical professionals.

<http://www.repace.com/pdf/VAAQSurvey.pdf> - AQI levels in smoking establishments

Protecting workers from irreversible lung damage could be a good point of agreement in guiding LNI regulations. If this means stopping outdoor work at 315 AQI for example, then that threshold should be established to ensure workers are not exposed. Quality, availability, and compliance of masks make mandates difficult to implement. Providing filtering masks to workers at unhealthy air quality without requiring wearing them allows personal discretion, personal health history, and individual decision making.

Applicability

In order to help with implementation and adherence, the rules need to be tailored to the type of workers, the work setting, seasonality (fishing and ag harvest for example). Wildland firefighters are

another example with specific restrictions counter to the proposed LNI rules:

Appendix Q #15. pg. A-96 Air Quality Upon request, DNR will provide N-95 particulate masks for use in fire camps. Particulate masks may not be used on the fire lines. DNR commits to further discussions with the union regarding firefighter respiratory health.

https://www.wfse.org/system/files/wfse_gg_contract_0.pdf

Productivity

A 2022 study looked at impacts to outdoor construction worker productivity as different AQI thresholds trigger mitigating measures (AQI 69 vs 151). In any outdoor labor industry work cannot be done without workers. Establishing measures that protect workers without imposing unrealistic expectations will help both workers and employers. Perhaps a cumulative exposure metric (or app?) could be developed to track exposure time and AQI up to an acceptable level?

<https://academic.oup.com/annweh/article/66/4/419/6476435>

Thank you and the LNI staff for your good work.

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