CDPH Review of Colorado Wildfire Remediation Analysis Residential Premises and Insurance Impacts Report November 18, 2025

Summary of the report:

We reviewed a draft of the November 2025 report compiled for the Colorado Regulatory Agency on wildfire remediation in residential premises. The comments below are offered by CDPH's team of subject matter experts in environmental science, industrial hygiene, occupational health, childhood lead poisoning, toxicology, epidemiology, and public health policy.

The report describes the state of the science that could support standardized sampling, testing and cleanup protocols for residential properties impacted by wildland/range and wildland-urban interface (WUI) fires.[1] The report appears to have thoroughly considered seminal research in this area, including work done by the American Industrial Hygiene Association, the Institute of Inspection Cleaning and Restoration Certification (IICRC), Rocky Mountain Association of Public Insurance Adjusters (RMAPIA) and the World Trade Center Studies done by U.S. Environmental Protection Agency.

The report discusses the Contaminants of Concern (COCs) including soot, char, ash, semi-volatile organic compounds (SVOCs), heavy metals, and emerging contaminants like dioxins/furans and PFAS/PFOS and some of the considerations for determining whether assessments should be limited to soot, char, and ash or expanded to other COCs.

Section 4.8 clearly lists some of the strategies and methods that were not recommended and describes the reasoning, which included consideration of:

- Availability of standard testing methods in the tested matrix
- Availability of typical background levels for each contaminant of concern
- Established health protective target levels
- Evidence for health benefit of reaching target levels
- Utility of testing to demonstrate efficacy of remediation.

Standardized Minimum Testing Protocol

The report includes descriptions of the wide variety of current practices for sampling and testing and although the report recommends that a standardized minimum testing protocol would streamline claims and ensure comprehensive cleanup, the report stops short of making any definitive recommendation for testing that could be applied universally. The report also acknowledges that although any testing would not

[1] Note that although the report assessed the insurance implications of implementing such protocols, we did not assess elements outside of our areas of expertise.

necessarily be used to assess risk of adverse health effects, its adoption could serve to minimize disputes between policyholders and insurers.

Note that the report focuses on providing remediation recommendations to the Colorado Division of Insurance so framing in the context of health harms may not be necessary for this purpose. Because the goal of remediation is to remove or reduce potential exposures, and it is important to remember that while remediation may be a preferred way of eliminating risk of exposure, presence of contaminants does not always directly imply that exposure is likely or problematic, and there are alternative ways of minimizing exposure when contaminants are present in an environment that are not considered by the report.

The report calls for risk-based sampling, testing, and cleanup standards tailored to residential environments and background level determinations to guide remediation. The report predicts risks using standard assumptions that may or may not be applicable in California settings. For example, costs and recommended protocols are based on a half acre lot size. Smaller or larger lots would have different risk profiles and cost estimates.

Overall recommendations

Section 8.0 summarizes its recommendations:

- *A standard list of fire related COCs including soot, char, ash, SVOCs, heavy metals, and dioxins/furans that serve as surrogates for potential health impacts resulting from wildland/range and WUI fires.*
- *Standardized testing protocol as the starting point for any claim of impact from fires.*
- *Cleanup standards that consider background for all fire related COCs.*
- *Economic evaluation of replacement vs. repair in situations with widespread and significant impact from fire related COCs.*
- *Track and integration of emerging scientific data on wildfire-related COCs into the evolving testing and remediation standards.*

We believe these recommendations provide a reasonable framework for addressing the topic of what, when and how to test for COC's in order to reduce liability when remediating wildfire smoke damage in residential properties. The recommended environmental measurements and analytical techniques are consistent with those used at CDPH and the established state of the art.

CDPH has five additional suggestions to consider if adapting this report to the California setting:

1. One difference between Colorado and California is that in California when construction work occurs that may occupationally expose a worker to lead, the Cal/OSHA Lead In Construction standard at Title 8 CCR 1521.1 must be followed to protect workers from lead exposure. This requirement should be added and emphasized to any adaptation of the report to California.

2. A second difference between Colorado and California is that in California once a lead hazard defined at Title 17 CCR 35037 has been identified, contractors must follow the existing state standard for lead hazard evaluation and abatement outlined in California Code of Regulations Title 17 §36000 & §36100. This requirement should be added and emphasized to any adaptation of the report to California.

3. The report acknowledges that existing standards for most COCs are limited or lacking, and implies that ongoing testing will help build a better knowledge database. We agree with this important point, and a decision tool or other consensus strategy should be agreed upon that defines how to assess new information and determine whether it would justify any changes to recommendations.

4. In situations where there is evidence* to suggest indoor lead contamination and there is no standard list of CoC for testing, it would be advisable to test for lead OR proceed with appropriate Title 17-compliant remediation with the presumption that lead is present, particularly in homes where young children or pregnant individuals may reside.
    a. Practically speaking, if testing methodology bundles other CoCs in with lead testing, it is likely to be efficient to proceed with the method and generate results for other CoCs that are included in the same laboratory method.
    b. *Evidence to be considered might include building materials, previously existing land uses, preponderance of homes built pre-1978, etc.
5. One issue that should be explored further is the presence and location of HVAC systems. These may be located in parts of the home not normally considered inhabited. If HVAC systems are typically located in attics or unfinished basements, this may change the value of assessing the presence of CoCs in these spaces that might otherwise not pose a high risk of exposure.
6. Due to the known risks from lead to children we suggest that testing and use of CDPH certified workforce is critical for households with children or reasonably anticipated to have children.