

Exposure to ash during logging operations after wildfires

What is the potential risk?

Conducting forest harvesting activities after wildfires introduces the potential for exposure to wood ash. Workers can be exposed to ash particulates and increased levels of ash dust during work activities. These work activities include tree falling, as well as log skidding, processing, sorting, loading, and hauling, especially where ground cover is depleted. Wood ash particulate can also become airborne through the handling of charred or blackened logs and through delimiting activities.

Ash from wildfires is a complex mixture that can change depending on the temperature of the fire. The lower the temperature, the more carbon is present in the ash and the blacker it appears. Higher-temperature fires can result in the production of more calcium carbonate, which is a lung irritant. Short-term health effects from exposure to wood ash can include eye, nose, and throat irritation; coughing; and allergic reactions. In the long term, exposure may lead to more serious health issues, including lung diseases such as chronic obstructive pulmonary disease (COPD).

Which industries may be at risk?

- Forest harvesting and related site operations
- Land and wildlife management
- Land surveying

How can I determine if my workers are at risk?

Perform a site walk-through to see if your workers are directly exposed to wood ash. Signs that your workers may be at risk include the following:

- Black residue on workers' hands and/or clothing
- Black deposits on workers' tools and equipment and/or in workers' vehicles
- Workers showing signs of eye, nose, or throat irritation

How can I reduce the risk in my workplace?

As an employer, you need to know if there is the potential for the risk identified in this advisory to be present in your workplace. It's your responsibility to regularly inspect your workplace, and to ensure that your safety procedures and practices control the risk. The following information highlights some of the sections of the Occupational Health and Safety (OHS) Regulation that are most relevant to this risk.

Part 5 of the OHS Regulation addresses controlling exposures to hazardous substances such as those found in wood ash and dust. Employers must eliminate the exposure, or control it below harmful levels, by implementing engineering and administrative controls as well as ensuring the use of personal protective equipment. If a

worker exhibits signs or reports symptoms of overexposure, the employer must investigate and assess the potential for exposure. Part 5 also outlines additional duties the employer must perform to ensure worker safety.

Workplace exposure to wood dust can be reduced by doing the following:

- Educating workers on the hazards of wood ash and how exposure can be prevented
- Providing face- and handwashing facilities to remove dust from workers' skin

- Providing personal eyewash units
- Ensuring that vehicle and equipment cabs are properly sealed (door and window seals are present and in good condition) and operated with the windows closed and cab air filtration systems in place
- Considering the use of respiratory protection and disposable coveralls for workers who spend most of their time outside of vehicles

For more information on how we identified this risk, visit worksafebc.com/emergingrisks.