

Wildfire Recovery – Ash and burned debris:

OHS information for employers

KEY POINTS

- Employers are required to take all necessary steps to protect health and safety of their workers
- Ash and burned debris from fires may contain hazardous substances
- Employers should select respirators appropriate for your site's specific hazards
- Employers must ensure workers are medically fit to wear respirators and that the worker is clean shaven before fit testing

THE HAZARDS: What are the hazards after a major fire?

Ash and burned debris from fires may contain hazardous substances, such as heavy metals, polyaromatic hydrocarbons (PAHs), asbestos and dioxans/furans. The ash is also likely to be alkaline. In some areas, a bonding compound will have been applied to burned structures to reduce airborne dust generation. This product may contain crystalline silica. These substances may become airborne when the materials are disturbed, so care is required during clean-up to ensure workers are protected.

Safety should be the first priority of employers and workers during the wildfire and once recovery begins. Employers are required to take all necessary steps to protect the health and safety of their workers. This includes identifying and taking steps to mitigate all hazards, including poor air quality and ash and burned debris.

THE EFFECTS: What health effects could workers experience?

Dust and soot exposure can worsen respiratory diseases (e.g. asthma or chronic obstructive pulmonary disease (COPD)), or lead to new symptoms of respiratory disease such as shortness of breath, wheeze, and cough. Mental health disorders such as post-traumatic stress disorder (PTSD), depression and anxiety can result from exposure to dangerous situations. Musculoskeletal injuries related to over-exertion may occur.

[Health screening questionnaires](#) can help you determine if your workers have medical conditions that would put them at risk of worsening health as a result of participating in cleanup efforts related to wildfire.

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THE CONTROLS: What do employers need to know about Respiratory Protective Equipment (RPE)?

This information is a starting point for employers. You should select respirators appropriate for your site's specific hazards. For more information on respirator selection and use refer to the [employer's guide to respiratory protective equipment](#).

All respirators must be approved by the National Institute of Occupational Safety and Health (NIOSH) per section 246 of the Alberta Occupational Health and Safety (OHS) Code.

Employers must ensure workers are medically fit to wear respirators and that the worker is clean shaven where the respirator seals to the skin of the face (if a tight-fitting respirator is used) before they can be fit-tested. Section 250 of the OHS Code also requires that a worker be clean shaven where the respirator seals to the skin of the face during respirator use, if the efficacy of the equipment depends on a tight facial seal.

Contractors and crews involved in clean-up with direct contact with ash and burned debris

- Employers should provide workers with a National Institute of Occupational Safety and Health (NIOSH) approved half-face air purifying respirator with combination P100/activated carbon filter cartridges at a minimum.
- A powered-air purifying respirator (with combination cartridges) is an alternate option for workers involved in manual work. They offer a higher level of protection, provide eye protection and will feel cooler due to air flow.

Other controls

- Workers should also have eye protection. Tight fitting chemical goggles are best to protect eyes from irritant gases if a half face respirator is used. Alternatively a full-face respirator with combination cartridges can be used.
- Workers should ensure they do not have any exposed skin and should have work clothing that covers the arms and legs.
- Employers should provide workers with rubber boots that may be easily cleaned.
- Clothing and footwear contaminated with ash should be properly cleaned between uses and, if possible, not brought into areas used for eating and sleeping.

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Contractors and crews involved in clean up inside and outside of buildings with no direct contact with ash and burned debris

- Employers should supply workers (including volunteers) with minimum NIOSH approved half-face air purifying disposable P100 respirator.

Workers inside buildings who are not involved in clean-up activities (e.g. office staff)

- These workers do not need respiratory protection, however windows and doors should be kept closed and air conditioning should be kept on.
- If workers have irritation effects or concerns or if air filtration systems are not working, employers should provide a respirator. An N95 respirator would be acceptable.

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Contact Us

OHS Contact Centre

Edmonton & Surrounding area

- 780-415-8690

Throughout Alberta

- 1-866-415-8690

Deaf or hearing impaired:

- 780-427-9999 (Edmonton)
- 1-800-232-7215 (Alberta)

Website

work.alberta.ca/ohs

FOR MORE INFORMATION:

- Wildfire Recovery: Information for Workers and Employers
<https://work.alberta.ca/documents/wildfire-recovery-info-sheet.pdf>
- Respiratory Protective Equipment: An Employer's Guide
http://work.alberta.ca/documents/WHS-PUB_ppe001.pdf
- Sample Health Screening Questionnaire
<http://work.alberta.ca/documents/sample-health-screening-questionnaire.pdf>
- Hazard Assessment and Control: A Handbook for Alberta Employers and Workers
<http://work.alberta.ca/documents/ohs-best-practices-BP018.pdf>

Get Copies of OHS Act, Regulation and Code

Alberta Queen's Printer

www.qp.gov.ab.ca

Occupational Health and Safety

work.alberta.ca/ohs-legislation

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