

Wildfire Recovery – Removal of debris from completely or substantially burned structures

KEY POINTS

- If the structure is gone, and clean-up involves removing debris, this is not considered a demolition
- An acceptance from the OHS Code Section 34 is not needed if work is for debris removal when the structure is gone
- Safe work procedures, personal protective equipment and decontamination processes must be used
- Employers should select respirators appropriate for your site's specific hazards

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

Ash and burned debris from structures completely or substantially burned 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 including identifying and taking steps to address 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: How do employers ensure safe removal of debris?

This information is a starting point for employers. In addition to the information below, employers must also ensure other applicable provisions (e.g. first aid, excavating, etc.) in the OHS Code are complied with. Conduct occupational monitoring during work to help evaluate work procedures and personal protective equipment.

Procedures for safe remediation work

- Separate off work area with perimeter taping or other barriers.
- Ensure waste materials are thoroughly soaked with water before disturbing. Additional wetting may be required once the bonding encapsulate surface is broken to ensure the materials underneath are wet.
- Conduct removal by machine; workers in excavating equipment should keep windows closed and air conditioning systems on.
- Waste bins should be lined with polyethylene sheeting (or similar). This will facilitate cleaning, and is important because waste materials can be alkaline (high pH).
- During transport of waste to the disposal site, the waste must be kept covered.

Recommended protective equipment for workers within the work perimeter

- At minimum, use a half-face, NIOSH-approved respirator with minimum combination organic vapour/P100 cartridges (not required for equipment operators if windows of equipment can be kept closed).
- Cartridges should be replaced at the beginning of each work day or in accordance with the calculated change out schedule, whichever time period is lower.
- Use impermeable protective coveralls and gloves. Tape gloves to the sleeves of coveralls.
- Rubber steel toed boots, with coveralls extended over boots, not tucked inside.
- Protective eyewear with side shields or goggles (not required by equipment operators if windows of equipment can be kept closed).
- If a full facepiece respirator is used, protective eyewear is not required.

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Procedures for safe decontamination

- Provide workers with site-specific decontamination procedure training prior to the start of work.
- Provide an area just outside the work perimeter where workers can wash their face and hands and take off personal protective equipment. The area should include disposal bins for used coveralls, gloves, and respirator cartridges and an area to clean boots and respirators. The area should be supplied with clean water and a water/mild detergent solution.
- Equipment and tires of vehicles transporting waste out of area should be cleaned prior to moving to a new area. For excavators, the key areas to be cleaned are tires and scoops.
- Wipe down interiors of excavators with a wet cloth at the end of each work day and park them with windows closed.
- Workers must not bring any equipment or protective clothing from the work area home or to their accommodations unless it has been cleaned.
- A clean area (such as a trailer) should be provided for workers to eat, drink and have breaks. Soiled/used protective equipment should not be brought into this area—workers must decontaminate before eating, drinking or using tobacco products.
- Because heat stress may become a hazard, ensure workers are trained to [recognize the signs of heat stress](#), have plenty of drinking water available and implement a work/rest schedule.
- If a worker's skin comes into contact with the debris, the affected area should be washed with clean water and soap as soon as possible.

Information about respirators

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. For more information on respirator selection and use refer to the [employer's guide to respiratory protective equipment](#).

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.

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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>
- Best Practice – Working Safely in the Heat and Cold
http://work.alberta.ca/documents/WHS-PUB_GS006.pdf
- Hazard Assessment and Control: A Handbook for Alberta Employers and Workers
<http://work.alberta.ca/documents/ohs-best-practices-BP018.pdf>

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