



CANADIAN ROOFING CONTRACTORS' ASSOCIATION
ASSOCIATION CANADIENNE DES ENTREPRENEURS EN COUVERTURE



2430 DON REID DRIVE · SUITE 100 OTTAWA, ONTARIO K1H 1E1 TEL: (613) 232-6724 · 1-800-461-2722 FAX: (613) 232-2893

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Uncommon Rooftop Hazards

There are many hazards that workers are exposed to when working on a rooftop. Some hazards are readily apparent such as fall hazards at roof edges or openings, electrical hazards posed from overhead power lines and safety hazards posed by roofing operations. However, there may be some uncommon roof hazards that workers could be exposed to and may not be familiar with.

- *Legionnaires' disease* – The bacteria that causes Legionnaire's disease is sometimes found in stagnant water located in cooling towers, condensers or storage tanks. Roof workers may be exposed to the bacteria when stagnant water is disturbed.
- *Radio frequency radiation* – Radio frequency (RF) radiation is produced by many man-made sources including cellular telephone towers/antennae, microwave ovens and television and radio broadcasting facilities. Worker's exposure to high levels of RF radiation can result in thermal effects (eye damage, cognitive issues). The effects of exposure that any worker will experience would depend on an antenna's power, wavelength frequency and proximity to the energy source.
- *Photovoltaics* – Solar panels installed on rooftops pose possible electric shock or fire hazards as there is no way to practically shut off the power being generated by the panels. Also, roof access may be limited due to location of panels.
- *Electrical Conduits* – Electrical conduit could be installed within the roofing assembly or directly below the roof deck. Any contact with electrical conduit when removing the roof assembly or installing fasteners could result in electric shock or fire.
- *Biological and Chemical Hazards* – There is a potential for roof workers to be exposed to health hazards associated with exposure to accumulated animal and bird droppings, building exhaust emissions, mold or roofing materials containing solvents, asbestos, lead, or silica.

Provincial and territorial occupational health and safety legislation governs the safety of all workplaces. All parties involved in a project including a building owner and roofing contractor, are responsible to meet the requirements of that legislation.

Building Owners

Building owners or property managers are responsible to ensure that all necessary maintenance and environmental assessments have been completed. These assessments would determine the presence of hazardous materials including asbestos in roofing or other materials. The

roofing contractor should be advised as to the presence and location of any hazardous materials at the time of project tendering.

Owners or property managers should also ensure that all rooftop equipment is maintained, cleaned and in proper working condition. Building operator should be knowledgeable with the operating procedures and limitations of rooftop equipment including maintenance and shutdown procedures.

Roofing contractors

Roofing contractors should request confirmation of the presence or absence of any hazardous materials that would have been identified in the environmental assessments and that proper maintenance on equipment has been completed. This information must be supplied by building owners at the time of project tender.

Roofing contractors should also ensure that all employees and workers are properly trained and be aware of any potential hazards that may exist on a rooftop. It is imperative for their safety that workers are trained to recognize any potential hazards and how to protect against those hazards.

- Where any rooftop equipment may pose a hazard to workers, determine from the building operator whether the equipment could be shut down or temporarily relocated during roofing work.
- Workers should be trained to recognize symptoms of exposure to any identified hazards and take appropriate safety measures.
- Do not allow workers to eat, drink, or smoke in areas where there may be airborne dust, mist, or standing water. All workers should wash their hands with soap and water, or use an anti-bacterial hand sanitizer, before eating, drinking, smoking, or leaving the worksite.
- Wear proper protective equipment where required.

Conclusion

Everyone involved in a project has the responsibility to provide a safe work environment and that all equipment, materials, and protective equipment is maintained in good working condition. Prior to submitting a tender bid, a review of the entire roof area, with relevant building personnel or those familiar with the operation of rooftop equipment and the roofing contractor, should be completed in order to identify all potential hazards and take all reasonable precautions that are necessary to protect workers from those hazards.

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