

Fire Prevention on Construction Sites

The following recommendations should be considered as complementary to any local regulations or specific requirements.

◎ Fire Prevention Features

- The site engineer should be continually reminded of his responsibility for fire protection on site.
- Even if the daily supervision responsibility is delegated, ultimate responsibility should still remain with the site engineer.
- The person responsible for fire protection should patrol the entire site once per shift.
- The site should be secured by a properly constructed fence.
- Temporary buildings (offices, rest rooms, material stores, etc.) should be made of non-combustible materials or at least of materials of limited combustibility.
- Adequate safety distances must be kept between temporary buildings.
- Living quarters should be well separated from the construction site and provided with adequate first-aid fire protection (extinguishers, hoses, etc.). Cooking facilities should be properly equipped with well-maintained extinguishers.
- Material and equipment stored in buildings (sheds) or in the open air should be subdivided into fire sections with a value, which should normally not exceed \$750,000. Depending on the storage method, sufficient free space must be provided between sections to allow access.
- Combustible material should be marked clearly and stored separately.

Fire protection should be in accordance with the type and size of the contract work involved.





- Packing materials, combustibles and explosives should be stored at a safe distance from buildings, plants and stores.
- The use of combustible formwork material, scaffolding, etc. should, if possible, be avoided. If such materials must be used, they should be stored at a safe distance from construction work.
- Firewalls between different buildings should be erected along with the individual storey (no wall openings permitted).
- Partitions should be erected as early as possible (subdivision into fire sections).
- Staircases should be erected together with the floor slabs to guarantee escape routes and access for fire fighting.
- Staircases and fire brigade access routes must be kept free and must not be used as storage or parking areas.
- Fire doors with automatic door closers should be installed as early as possible.
- Lightning conductors should be installed as early as possible.
- Utmost attention should be paid to good housekeeping such as:
 - Orderly storage.
 - Periodical removal of combustible material, either by burning on site at a safe location or removal from the site.
 - Clean up of site at least once a week.
- Open flame work (welding, cutting, etc.) requires the utmost caution. All combustible materials lying about must be removed or covered as welding sparks can fly up to 10 metres. After completion of such work, periodical inspection patrols must be made.
- Special caution is also required when using combustible insulation and sealing materials or adhesives (heating and boiling of coating and sealing substances, etc.).
- “No smoking” rules must be enforced in areas exposed to fire (stores, etc.) and in the vicinity of hazardous operations.

🔥 Fire Control Features

- A watchman service should be provided for the site at night and at weekends (periodical watchman’s rounds).
- Any fire must be reported immediately to the site engineer, the person responsible for supervising fire protection and, if necessary, the guard at the gate via the existing communication system (walkie-talkie, telephone). An adequate alarm system (hooters or sirens) should be provided and regularly tested.
- Important telephone numbers (site engineer, fire protection supervisor, guard at the gate, fire brigade, doctor, etc.) must be prominently displayed near each telephone.
- Portable fire extinguishers must be suitably located at the construction site.
- Each location should be conspicuously marked by visible signs. Checking and maintenance at regular intervals must be guaranteed and recorded.
- Water supply for fire-fighting purposes (pipe system, hydrants, pumps, tanks, reservoirs, etc.) should be provided (at the beginning of the construction period) either by a temporary system or by the early completion of the permanent system - if practicable.

Effective **fire prevention and control** helps to establish a **solid defence** in the event that a fire does occur.



- Water supply should be sufficient for several hours of fire fighting.
- Hydrants should be supplied with long hoses and proper fittings. Each hydrant point should be conspicuously marked by clearly visible signs if functional.
- The pipe system should guarantee a minimum pressure of 3 bars at the most remote point.
- Checking of the complete system by functional testing at periodic intervals should be carried out by the fire protection supervisor.
- The permanent hydrant points should be installed as soon as the construction work permits.
- In multi-storey buildings the hydrant risers should be installed and pressurized storey by storey as the construction progress permits.
- In all cases, sufficient hoses and fittings should be provided to ensure that all parts of the contract works can be reached with water.
- An emergency plan must show each person's responsibility in the event of a fire. If necessary, it should be posted in several languages.
- Fire-fighting teams should be formed and trained for each site. They should coordinate with the competent public fire brigade. Any necessary equipment needed must be made available. The fire prevention measure required and the access routes should be coordinated in detail in advance with the public fire brigade.



About Us

Northbridge Insurance is a leading Canadian commercial insurer. Working with our broker partners, we focus on understanding the needs of our customers and on creating solutions that make a difference to their success.

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For more information on making your business safer, contact Risk Services Department at **1.855.620.6262**.