

Burning and Demolition of Buildings and Fire Extinguisher Training

Department of Environment and Natural Resources
Government of the Northwest Territories

The demolition and renovation of buildings is an important part of community renewal and fire training practice is necessary to ensure our communities are protected from fire. However, unless done properly, these activities can result in the discharge of contaminants into the air and surrounding environment. For this reason, the demolition of buildings, including their planned burning, and fire extinguisher training must be carried out in a manner that protects public safety and the environment.

Burning of a Building

The burning of buildings and other structures solely for the purpose of demolition is not an acceptable environmental practice. The Department of Environment and Natural Resources will not issue a Permit to Burn under the Forest Protection Act for the demolition of a building.

Before a municipal or other fire suppression organization burns a building for the purpose of fire fighting practice, the following conditions must be met:

- Approval is obtained from the local municipality, the Office of the Fire Marshal or his designate,
- A fire instructor must be on site to ensure these conditions are met and the burn is conducted in a safe manner.
- A competent person shall inspect the building and property to confirm no human or wildlife is present.
- The proponent must take all reasonable steps to ensure that any fire does not spread from the intended structure to surrounding structures.
- Sufficient fire response capacity including equipment and personnel should be on site to deal with an escape fire threatening other structures or values.
- Any fire must be attended until the fire has been completely extinguished (*Forest Protection Act, R.S.N.W.T.*).
- The building owner must approve of the burn.
- A minimum amount of accelerant should be used. Acceptable accelerants include uncontaminated refined petroleum products.
- No extra materials can be added to the structure and the fire cannot be used to dispose of domestic, institutional or commercial garbage.
- Wind direction should be such that the resulting smoke is blown away from populated areas and buildings, or people should be advised in advance of the fire practice burn.

- To minimize health and environmental impacts, all reasonable measures should be undertaken to remove the following materials from the structure prior to burning:
 - Asbestos insulation, siding, shingles and other materials
 - Urea formaldehyde foam insulation
 - Vinyl siding
 - Synthetic carpets
 - Linoleum
 - Fluorescent fixtures including the ballast and fluorescent tubes
 - Glycols from heating systems
 - Refrigerant agents (i.e. chlorofluorocarbons and ammonia) from refrigeration and air conditioning systems
 - PVC and ABS piping and other plastics, where accessible
 - Thermostats that contain mercury switches
 - Fire extinguishers
 - Rubber
 - Pesticides, paints, solvents and cleaning, maintenance and other unused chemicals
 - Smoke detectors
 - Treated wood, where practical

Demolition of a Building (by a means other than burning)

The following materials should be removed from the building or structure prior to its demolition and disposed in accordance with local by-laws and territorial health and environmental requirements.

A. Physical Building/Structure and Contents

- Asbestos insulation, siding, shingles and other materials including tile, wall board, pipe wrap, pipe elbows and asbestos fire breaks (kitchen, furnace room)
- Glycols from heating systems
- Refrigerant agents (i.e. chlorofluorocarbons and ammonia) from refrigeration and air conditioning systems
- Thermostats that contain mercury switches
- Fire extinguishers (older units may contain carbon tetrachloride or halons)
- Fluorescent lamp ballasts (units manufactured before 1982 may contain PCBs)
- Pesticides, paints, solvents and cleaning, maintenance and other unused chemicals
- Lead shields and other x-ray shielding equipment (health centres)
- Fume hood asbestos siding and filters (schools, health centres, laboratories)

- Empty or excavate basement/foundation sumps as these may contain waste dangerous goods

B. Grounds and Other Structures

- Electrical transformers, pole mounted or otherwise (contain oil and possibly PCBs)
- Steel tanks or other metal structures coated with lead paint
- Fuel storage tanks and lines – confirm these are empty of fuel
- Hydrocarbon contaminated soil
- Utilidor systems containing asbestos insulation

Renovation of a Building

If a building is to be renewed through renovations, the same materials as listed under Demolition of a Building should be removed and properly disposed in accordance with local by-laws and territorial health and environmental requirements.

The Departments of Health and Social Services, Workers Compensation Board and Environment and Natural Resources should be consulted on the safety and effectiveness of any alternative options considered.

Fire Extinguisher Training

When using an open flame during the undertaking of training on the operation of a fire extinguisher, the following conditions should be met:

- Approval is obtained from the local municipality, the Office of the Fire Marshal or his designate, and the local Forest Management or Renewable Resource Officer during forest fire season.
- The fuel (uncontaminated refined petroleum product) is contained in a non-combustible pan or tray.
- Wind direction should be such that the resulting smoke is blown away from populated areas and buildings, or people should be advised in advance of the fire extinguisher training.
- Unburned product from the pan or tray is reused or treated as hazardous waste and disposed of in accordance with local by-laws and territorial health and environmental requirements.

For further information, contact your local Environment and Natural Resources' Regional Environmental Protection Officer or:

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