

Live Fire Suppression Training Guidelines

Background

These guidelines outline the environmental requirements for conducting live fire suppression training and are intended to balance the need for live fire training exercises with the need to minimize harm to human health and the environment. Fire training exercises are not intended to be used as a mechanism for the disposal of waste or dilapidated structures or to circumvent any requirements set in place by the [Saskatchewan Public Safety Agency](#).

The fire service must ensure the safety of firefighters engaging in live fire exercises and the safety of the surrounding community. There is evidence to suggest that fire retardant or firefighting foam may contain chemicals that can cause persistent adverse effects to the environment and human health. Where possible, the Ministry of Environment encourages the use of purpose-built training facilities, capable of containing the foam and runoff, and collaborative training exercises between fire services to maximize training events and minimize environmental impacts.

Performing controlled fires inside of existing structures by utilizing a fire box, instead of burning the actual structure, would minimize environmental impacts and still allow for meaningful training exercises. This could eliminate the need to remove materials from the structure that are prohibited to be burned. The structure could then be utilized for future training or disposed of in an environmentally responsible manner.

Approval and Permitting

Regulations define what types of burning are considered an industrial activity and whether a permit is required. This guidance document was developed to support volunteer and professional fire departments, or any other persons or organizations, who intend to undertake any industrial activities listed in Section 13 of *The Environmental Management and Protection (General) Regulations* associated with live fire suppression training. Industrial facilities that include details of their live fire suppression training in their approved environmental protection plan pursuant to the Industrial Source (Air Quality) Chapter, do not require additional permitting pursuant to Section 14 of *The Environmental Management and Protection (General) Regulations* for fire suppression training exercises. Live fire training exercises using clean waste wood can occur without a permit, provided they are done in accordance with the guidelines in the [Open Burning and Disposal of Clean Wood Guidance](#).

If the proposed training involves the burning of materials other than clean wood, a permit from the ministry is required. To receive a permit, a fire service will be required to submit:

- (i) Name, address, phone number and email address of the person applying for the permit.
- (ii) Name of the fire service(s) conducting the live fire training exercise.
- (ii) Date(s) of the live fire training exercise.
- (iii) Land location.
- (iv) Name, address and phone number of the landowner.
- (vi) Confirmation that the Live Fire Suppression Training Guidelines will be followed.
- (vii) Name, instructor qualification, phone number and email address of the instructor responsible for the training exercise.
- (viii) Objective and format of the exercise (e.g. structure burn, vehicle burn, fire extinguisher training).

This information must be submitted to the ministry's Inquiry Centre to obtain a permit for the live fire training exercise.

If the proposed live fire training exercises do not follow these guidelines, applicants will be required to submit an environmental protection plan (EPP) detailing the methods used to prevent, minimize, monitor, mitigate, remedy or reclaim adverse effects before, during or after the activity.

General Requirements

The burning of any material presents potential dangers to the environment by releasing emissions into the air, surface water and/or groundwater. Due to the toxic emissions they can create, certain materials must not be burned, including:

- tires;
- asbestos-containing materials;
- treated wood (e.g. railway ties);
- used oil; or
- environmentally persistent or chronic hazardous substances as defined in Appendix C of [The Hazardous Substances and Waste Dangerous Goods Regulations](#).

Some individuals have a greater susceptibility to the health effects of smoke emissions. Burning must not occur within one kilometre of a sensitive receptor such as, but not limited to:

- health care facilities;
- senior citizens' residences;
- childcare centres; or
- schools.

All neighbouring residents and businesses within five kilometres shall be notified prior to the live fire exercise. The fire must not be ignited if the prevailing wind will carry smoke towards occupied residences or impair visibility on public roadways. Burning must not occur during air quality advisories and/or burn restriction periods.

After a fire, pollutants in ash, debris and wastewater have the potential to impact the environment. For this reason, no burning may occur within 100 metres of environmentally sensitive areas, such as a water body, wetland or natural grasslands. It is the fire service's responsibility to clean up the site after live fire training exercises.

Favourable meteorological conditions allow for smoke dispersion, air mixing, safe combustion and minimal smouldering.

The Canadian Council of Ministers of the Environment has published a [Guidance Document for Canadian Jurisdictions on Open-Air Burning](#), outlining meteorological conditions to consider before and during burning activities.

The training must be postponed or cancelled if unfavourable conditions are present.

Structure Burning Requirements

In addition to the general requirements above, the burning of structures must be done in accordance with the following conditions:

- Vinyl siding or flooring, asphalt shingles, materials painted with lead-based paint, lead-based plumbing materials, PVC piping, asbestos and asbestos-containing materials, and fluorescent bulbs are either removed from the structure or live fire training exercises are planned to prohibit burning of these materials.
- Drywall is burned only to the extent necessary for the live fire training exercise.
- Any materials that are not required to be burned for the purpose of a live fire training exercise are removed from the structure.

In the event that all materials listed in these requirements cannot be removed, all ash, debris and impacted soil remaining after the burn must be collected, characterized and disposed of at an approved disposal facility, such as a landfill or other facility permitted to accept contaminated materials.

Prior arrangements, including receipt requirements, should be made with the waste facility owner before disposal. Buildings constructed prior to 1978 shall be presumed to contain lead-based paint and buildings constructed prior to 1990 shall be presumed to contain asbestos, unless testing can confirm otherwise. After live fire training exercises are complete, these structures must be demolished and disposed of at an approved disposal facility.

Vehicle Burning Requirements

In addition to the general requirements above, the burning of vehicles must be done in accordance with the following conditions:

- Burning occurs in non-permeable areas, such as a concrete pad.
- Batteries are removed from the vehicle.
- Used oil is drained.
- Tires are removed or prevented from being burned.
- To the extent possible, other fluids such as radiator fluid or crankcase oil are drained.

Fire Extinguisher Training Requirements

The ministry encourages the use of purpose-built training props for fire extinguisher training, such as digital or propane-fuelled simulators. Where purpose-built simulators cannot be used, fire extinguisher training shall be limited to the lighting of small, controlled quantities of commercially available fuels (e.g. propane, diesel, gasoline, natural gas). Used fuels are not to be used for fire extinguisher training.

Need help? Contact the Inquiry Centre at: centre.inquiry@gov.sk.ca / 1-800-567-4224