

# Village Of Cache Creek

## Policy No. H-4

### Storage and Handling of Flammable and Combustible Substances

**Date Approved by Council:**  
September 6, 2005

**Effective:**  
September 6, 2005

**Date Amended by Council:**

**Effective:**

**Policy Statement:**

All Village of Cache Creek staff who handle flammable or combustible substances or who are responsible for the storage of flammable or combustible substances shall adhere to the Workers Compensation Board regulations included under the Procedures section of this Policy and the additional procedures of the Village of Cache Creek also included in the Procedures section of this Policy.

**Purpose:**

The purpose of this policy is to ensure that safe procedures are used for the handling and storage of flammable or combustible substances.

**Procedures:**

“*flammable gas*” means a substance which meets the criteria for WHMIS Class B Division 1 flammable gas, (a compressed gas with an upper flammable limit of 13% or less or with an explosive range of 12% or more). Examples of flammable gasses are benzene and gasoline.

“*combustible liquid*” means a liquid that has a flashpoint of 37.8° C (100° F) or more, but less than 93.3° C (200°). Examples of combustible liquids are kerosene, mineral spirits and butyl cellosolve.

Workers Compensation Board Regulation for Flammable or Combustible Substances

5.27 Ignition Sources

- (1) When a flammable gas or a flammable liquid is handled, used or stored, all sources of ignition must be eliminated or adequately controlled.
- (2) For the purposes of subsection (1) sources of ignition include open flame, spark-producing mechanical equipment, welding and cutting processes, smoking, static discharge and any electrical equipment or installation that is not approved for hazardous locations, as specified by the Electrical Safety Act.
- (3) If the work involves more than one employer, the principal contractor or, if there is no principal contractor, the owner must ensure that sources of ignition resulting from the work of one employer are eliminated or adequately controlled in any work area where a flammable gas or a flammable liquid is handled, used or stored by any other employer.

5.28 Grounding or Bonding

Metallic or conductive containers used to transfer flammable liquids must be electrically bonded to each other or electrically grounded while their contents are being transferred from one container to the other.

5.29 Electrostatic Charge

If a glass, plastic or other non-conductive container with a capacity of 23 litres (5 imp gal) or more is used to transfer a flammable liquid, the accumulation of electrostatic charge near the surface of the liquid must be eliminated or controlled by

- (a) limiting the flow velocity of the liquid to less than 1 m/s (200 fpm),
- (b) using a grounded lance or nozzle extending to the bottom of the container,
- (c) limiting free fall,
- (d) using anti-static additives, or
- (e) other effective means.

5.30 Dispensing

If a flammable liquid is dispensed or transferred inside a flammable liquids storage room,

- (a) the storage room must be mechanically ventilated at a rate of at least 18 m<sup>3</sup>/hr per square metre of floor area (1 cfm/sq ft), but not less than 250 m<sup>3</sup>/hr (150 cfm),
- (b) exhaust air must be discharged to the outdoors, and makeup air provided,
- (c) any makeup air duct passing through a fire separation must be equipped with an approved fire damper, and
- (d) doors must be self-closing.

5.31 Flammable Gas or Vapour

If it is not practicable to maintain the airborne concentration of a flammable gas or vapour below the applicable exposure limit, for example, in a temporary situation or an emergency,

- (a) only the minimum number of workers necessary for the work may be exposed,
- (b) every worker exposed must be adequately trained and equipped to safely perform the required duties,
- (c) the concentration of the flammable gas or vapour must not exceed 20% of the lower explosive limit (LEL), and
- (d) in a life-threatening emergency only, exposure of emergency response workers is permitted above 20% of the LEL, provided that only those qualified and properly trained and equipped workers necessary to correct the unsafe condition are exposed to the hazard and every possible effort is made to control the hazard while this is being done.

5.32 Manual Cleaning

A flammable liquid must not be used as a manual cleaning solvent unless

- (a) a thorough review of alternative solvents by the employer indicates that a suitable non-flammable substitute is not available,
- (b) appropriate written safe work procedures are implemented to effectively control flammability and health hazards,
- (c) the quantity of liquid used is minimized,
- (d) the worker is instructed and trained in the safe work procedures, and
- (e) the work procedures have been submitted to the Board.

### 5.33 Permitted Quantities

Except for the quantity reasonably needed for immediate use, or that is present for display or sale in public areas of a mercantile facility, the quantity of combustible and flammable liquids stored outside an approved storage cabinet, storage room or storage area in any fire compartment (2 hour fire separation) of a building must not exceed

- (a) in closed containers, 600 litres (132 imp gal) of liquids having a flash point below 93.3°C (200°F) of which not more than 100 litres (22 imp gal) may be liquids having a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F), and
- (b) in storage tanks or portable tanks, 5,000 litres (1,100 imp gal) of liquids having a flash point below 93.3°C (200°F) and a boiling point at or above 37.8°C (100°F).

### 5.34 Combustible Materials

Except for packaging used to contain flammable or combustible liquids, combustible shelves, racks and other materials are not permitted inside a flammable or combustible liquids storage room or storage cabinet unless required as part of a fire separation.

### 5.35 Cabinet Vent

If a flammable liquids storage cabinet is vented, the vent must be a steel pipe at least 5 cm (2 in) in diameter which is connected directly to the outdoors.

## Village of Cache Creek Procedures

1. All flammable or combustible substances not for immediate use must be kept in the flammables storage room located in the Public Works building.
2. The flammables storage room must be kept in a neat and orderly manner to maximize accessibility and minimize handling and the door must be kept closed and latched at all times unless entering or exiting the room.
3. The ventilation equipment and the automatic door closure mechanism for the flammables storage room shall be inspected at least annually and serviced as needed.
4. Sawdust can ignite under certain conditions. Any piece of equipment which produces sawdust shall be kept clean. Any accumulated sawdust shall be cleaned up and disposed of as soon as the work is completed. Potential sources of ignition within 3 metres should be controlled until any sawdust is cleaned up.
5. All warning signage shall be visible at all times and mounted in their appropriate places.
6. Before transferring flammable or combustible substances from a storage drum to a smaller container, a spill containment kit and appropriate cleaning supplies shall be kept immediately at hand.