## BY-LAW NO. 7342

Being a By-law of The City of Calgary to Modify and Adopt the <u>National Fire</u> <u>Code of Canada 1963</u> as a Fire Prevention By-law for The City of Calgary and to Repeal By-law Number 5120

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WHEREAS section 156 of <u>The Municipal Government Act</u> allows the council to pass by-laws for the prevention or extinguishing of fires and for the preservation of life and property from injury or destruction by fire and among other things to adopt and constitute the <u>National Fire Code of Canada 1963</u> with the exception of any specified provisions thereof or any modifications of the Code either in place of or in addition to any regulations made under any other provision of the said section;

AND WHEREAS it is expedient for The City of Calgary to adopt the said Code as a Fire Prevention By-law for The City of Calgary as extended and modified by certain provisions presently contained in By-law Number 5120 and such other provisions as the particular circumstances of the City may require and to substitute the National Fire Code of Canada 1963 as so modified and amended as aforesaid and to repeal By-law Number 5120;

AND WHEREAS it is the intent of the said Code as so modified and adopted to prescribe regulations consistent with nationally recognized standard practice for the safe-guarding to a reasonable degree of life and property from the hazards of fire and explosion arising from the storage, handling and use of hazardous substances, materials and devices and from conditions hazardous to life or property in the use and occupancy of buildings or premises;

NOW, THEREFORE, THE COUNCIL OF THE CITY OF CALGARY ENACTS AS FOLLOWS:

- A. This By-law may be cited as "The 1968 Calgary Fire Prevention By-law".
- B. (1) The <u>National Fire Code of Canada 1963</u> as modified, amended or extended by the provisions of this By-law is hereby adopted as fire regulations for the City.
- (2) The word "Code" where used alone herein means the <u>National Fire Code of Canada 1963</u> adopted by this section and the phrase "Fire Code" has the same meaning.
- (3) The word "City" means the municipal corporation of The City of Calgary or where the context so requires means the area contained in the boundaries of the said corporation and when the phrase "this municipality" or the word "municipality" is used in the Code or elsewhere in any amendment or modification of the Code the said phrase or word refers to the City.
- C. (1) Part 1 of the Code is hereby amended as to section 1.2. by adding after subsection 1.2.2. the following new subsection:
  - "1.2.3. The provisions of this Code shall apply equally to new and existing conditions except that existing conditions not in strict compliance with the terms of this Code shall be permitted to continue where the exceptions do not constitute a distinct chance for the starting or spread of fire

(2) Part 1 of the Code is hereby further amended by adding after section 1 thereof the following new heading and section:

## "SECTION 1.2A. BUILDING PLANS TO BE CHECKED

- "1.2A.1. All plans presented to the Building Inspection Division of the Planning Department for the addition to or alteration of a building other than a single-family detached dwelling house or a two-family dwelling house shall be examined by the Fire Marshal or an inspector with respect to standpipes, fire alarms and hydrants, fire shutters and doors, fire exits and escapes and all other fixtures and apparatus showing in the plans pertaining to the safety of the building and its occupants and pertaining to the prevention of fire.
- "1.2A.2. No person may commence any building operation for the addition to or alteration of any building other than a single-family detached dwelling house or a two-family dwelling house unless the safety features and fire prevention and control devices set out in subsection 1.2A.1. have been incorporated in the plans for the addition or alteration to the satisfaction of the Fire Marshal and of the Building Inspector.
- D. (1) Part 1 of the Code is hereby amended as to section 1.3. thereof by deleting sentence (1) of article 1.3.1.3. of subsection 1.3.1. of the said section and by substituting therefor the following sentence:
  - "1.3.1.3. (1) A person who is required by article 1.3.1.2. to give information or assistance to an inspector and who
    - (a) does not give the information or assistance which he is required to give, or
    - (b) knowingly states anything false in any information delivered or furnished to the inspector, or
    - (c) obstructs or interferes with an inspector who is carrying out an inspection under this Code

is guilty of an offence and liable on summary conviction to a fine of not less than twenty dollars and not more than one hundred dollars and in default of the payment of the fine and costs which may be imposed to imprisonment for a period of not less than ten days and not more than thirty days unless the fine and costs including the costs of committal are sooner paid. "

(2) Part 1 of the Code is hereby further amended as to section 1.3. by inserting in the blank in article 1.3.3.1. of subsection 1.3.3. of the said section the word "ten".

- (3) Part 1 of the Code is hereby further amended as to section 1.3. by
  - (a) inserting in the blank between the words "within" and "days" where the same appear in the third line of article 1.3.3.2. of subsection 1.3.3. of the said section the word "five",
  - (b) inserting in the blank between the phrases "a judge of the" and "to review the order" where the same appear in the fourth and fifth lines of article 1.3.3.2. aforesaid the words "district court having jurisdiction in the judicial district in which the City is included", and
  - (c) deleting the word "mershal" and removing the brackets around the word "commissioner" where the same appear in the last line or article 1.3.3.2. aforesaid.
- (4) Part 1 of the Code is hereby further amended as to section 1.3. thereof by inserting the words "one hundred" in the blanks in both clauses (a) and (b) of sentence (1) of article 1.3.3.4. of subsection 1.3.3. of the said section.
- (5) Part 1 of the Code is hereby further amended as to section 1.3. by deleting article 1.3.4.1. of subsection 1.3.4. of section 1.3. and by substituting therefor the following article:
  - "1.3.4.1. Every person who contravenes or fails to comply with this Code or who fails to carry out an order made under this Code or any condition attached to a permit or to which a permit is subject is guilty of an offence and where no other penalty is provided in this Code is liable upon summary conviction to a fine of not less than ten dollars and not more than five hundred dollars or in default of the payment of fine and costs to imprisonment for a term of not less than ten days and not more than six months unless such fine and costs including the costs of committal are sooner paid. "
- (6) Part 1 of the Code is hereby further amended as to section 1.3. by inserting the words "Supreme Court of Alberta" in the blank where the same appears in the fifth line of article 1.3.4.2. of subsection 1.3.4. of the said section.
- E. (1) Part 1 of the Code is hereby further amended as to section 1.4. thereof by inserting the word "four" in the blank appearing in the first line of clause (c) of sentence (1) of article 1.4.1.3. of subsection 1.4.1. of the said section.
- (2) Part 1 of the Code is hereby amended as to section 1.4. thereof by deleting sentences (1) and (2) of the article 1 of the said section and by substituting therefor the following sentences:
  - "1.4.2.12. (1) A permit shall be required for
    - (a) the maintenance, processing, blending or refining of flammable liquids or
    - (b) the storage of flammable liquids in stationary tanks.

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- " \_\_\_\_ (2) Unless and until he first obtains a permit in writing from the Fire Chief a person shall not
  - (a) handle or store a Class A flammable liquid in excess of one gallon either within or outside of a building;
  - (b) handle or store a Class B figurmable liquid in excess of
    - (i) five gallons in a dwelling,
    - (ii) twenty gallons in any other building, or
    - (iii) fifty gallons outside | puilding;
  - (c) handle or store a Class C liquid in excess of
    - (i) twenty-five gallons in a building or
    - (ii) fifty gallons outside of a building

except where otherwise permitted by this Code.

- F. (1) Section 1.5. of the Code is hereby amended by
  - (a) redesignating the said section as subsection 1.5.1. and
  - (b) deleting the definition of <u>Inspector</u> where the same appears in the said ridesignated subsection 1.5.1. and substituting the following definition:
    - "Inspector means the Chief of the Fire Department, the Fire Marshal and any other officer or person designated as a fire inspector by the Council, by the Commissioners, by the Fire Chief or by the Fire Marshal."
- (2) Section 1.5. of the Code is hereby <u>further</u> amended by adding after subsection 1.5.1. as designated by subsection (1) of this section the following new subsection:

# "1.5.2. ADDITIONAL DEFINITIONS

- "Aircraft service station means that portion of an airport where flammable liquids used as aircraft fuel are stored or dispensed from fixed equipment and includes all other equipment ancillary thereto.
- "Ammonia means a compound of nitrogen and hydrogen and includes ammonia hydroxide.
- "Apartment building means a building occupied as
  the residence of individuals, families or
  households living in separate units independent
  of each other and equipped for normal household
  purposes and containing three or more of such
  units.
- "Automatic fire alarm means a system which detects a fire condition and actuates a fire alarm signal device automatically.

- "Building Inspector means the Chief Building Inspector of the Building Inspection Division of the Planning Department of the City and includes any other building inspector thereof designated by Council, the Commissioners or the Chief Building Inspector to perform the duties of the Chief Building Inspector in any way related to this Code.
- "Bureau of Fire Prevention or Fire Prevention Bureau means the division of the Fire Department of the City which is concerned with fire prevention and with measures to ensure the safeguarding of buildings, lands and other property and includes the inspectors appointed for this purpose pursuant to this Code and which division is in charge of the Fire Marshal.
- "Cargo tanker means any container having a liquid capacity in excess of 100 gallons used for the carrying of flammable liquids and mounted permanently or otherwise upon a tanker vehicle but does not include the fuel tank used solely for the purpose of propelling the vehicle.
- "City means the corporation of The City of Calgary and where the context so requires means the area contained within the boundaries of the City.
- "<u>Commissioners</u> means the Board of City Commissioners established by By-law Number 7224 and where the context so requires includes one Commissioner exercising the powers or duties of the Board or powers or duties assigned to him by the City.
- "Council means the municipal council of the City duly assembled and acting as such.
- "Commercial or Industrial Establishment means a place wherein the storage, handling or use of flammable liquids is incidental but not the principal business or process.
- "Container means any can, bucket, barrel, drum or portable tank but does not include static.ary tanks, tank vehicles and tank cars.
- "Fire Chief means the employee of the City who is designated as being in charge of the Fire Department of the City.
- "Fire Marshal means the Chief Fire Inspector in charge of the Fire Frevention Bureau.
- "Institutional building means a building where persons receive medical, charitable or other care or treatment or a building in which persons are held or detained by a public authority having the right to detain them for punishment or correctional purposes.
- "Magnesium means the pure metal (Mg) and includes alloys of which the major rart is magnesium.

\*Office building means a building or part of a building used for

- (a) the conduct of the clerical or administrative work of any private or public business, undertaking, trade profession, occupation, employment or calling;
- (b) the practice of a profession, including consultation with patients, clients or patrons; or
- (c) the transaction of business in connection with the undertaking, trade, profession, occupation, amployment or calling

but does not include a retail shop.

- "Operator means the driver, including the owner, or any person having charge of a tank vehicle for flammable liquids pursuant to the provisions of subsection 2.1.6A.
- "Person means a natural person or a body corporate and where the context so requires includes an association, firm or partnership.
- "Petroleum means any hydrocarbon or hydrocarbon derivative in a liquid state other than liquefied petroleum gas.
- "Place of assembly means a room or space used for religious, recreational, educational, political, social or amusement purposes in which provision is made for the seating of 60 or more persons, or which has a floor area of 1,000 square feet or more used for such purposes and includes a room or space used for the consumption of food or drink in which provision is made for the seating of 100 or more persons, or which has a floor area of 1,500 square feet or more used for such purposes.
- "Portable cylinder means a container other than a skid tank or transport tank used for the transportation or supply of liquefied petroleum gas by temporary installation in connection with any gas burning system or appliance.
- "Public highway means any public thoroughfare and includes any place outside of a building where vehicles may be driven.
- "Public building means a building in which persons congregate for civic, political, educational, religious, social or recreational purposes.
- "Public Service Vehicles Regulations means the regulations established by the Province of Alberta pursuant to The Public Service Vehicles Act as the said regulations are amended from time to time and includes any similar set of regulations substituted therefor.
- "<u>Purge</u> means to remove flammable vapour or gas from storage containers before the repair or renovation of the containers.
- "Residence building means a building in which sleeping accommodation is provided but does not include an institutional building.
- "Storage tank means any vessel permanently installed and used or designed to be permanently installed and used for the storage of any petroleum, liquefied petroleum gas or ammonia and includes a skid tank.

- "Transportation tank means a pressure vessel
  permanently mounted or designed to be mounted
  on any conveyance other than a railway car
  and used or intended to be used for or
  primarily for the transportation of liquefied'
  petroleum gas, ammonia or petroleum.
- "Vapour pressure means the pressure measured in pounds per square inch absolute exerted by a volatile liquid as determined by the Standard Method of Testing for Vapour Pressure of Petroleum Products (Reid method) of the American Society for Testing Materials.
- G. (1) Part 2 of the Code is hereby amended as to settion 2.1. by deleting the words "shall be in accordance with the provincial electrical regulations" as the same appear in article 2.1.4.15. of subsection 2.1.4. of the said section and substituting therefor the words "shall be in accordance with the requirements of <a href="The Electrical Protection Act">The Electrical Protection Act</a> of the Province of Alberta and the regulations made there under and the requirements of the by-laws of the City relating to electrical installations and wiring as the requirements in all such cases are amended from time to time."
- (2) Part 2 of the Code is hereby further amended as to section 2.1. thereof by adding after article 2.1.4.15. of subsection 2.1.4. of the said section the following articles:
  - "2.1.4.16. No person shall throw or drop any lighted match, cigar, cigarette or other burning substance in or on combustible material or in close promimity thereto.
  - "2.1.4.17. (1) No person shall use a flame producing device or torch, a blow torch, an oxyacetelyne torch or other device for producing a hot or a cutting flame in connection with any metal trade or with painting or with any aspect of construction, or carpentry, on or in the vicinity of a building or other flammable structure or material unless or until he has provided one exproved fire extinguisher or water hose connected to a water supply on the premises where such flame producing device or torch is being used.
  - " (2) Where a person uses a flame producing device or torch of any kind either similar or dissimilar to those mentioned in sentence (1) he shall make certain that he has not thereby caused ignition of combustible materials within, on or in the vicinity of any building, structure or flammable material.
  - "2.1.4.18. (1) Unless and until he obtains a permit from the Fire Marshal no person shall use any open fire or flame to thaw the ground either within or outside of any building or structure or excavation prepared for any building or structure.
  - " (2) Without restricting the generality of sentence (1) it applies to thawing of ground by City crews or contractors for the City in preparation for any work or activity carried on by or in connection with the installation of water or sewer mains or any other underground utility for the City.

- "2.1.4.19. (1) Except for the display of saleable goods permitted and offered for sale unless such material has been flameproofed no person shall use any cotton batting, straw, dry vines, leavesp trees or other highly flammable materials for decorative purposes in shop windows or other portions of stores.
- " (2) Unless such material shall first have been rendered flameproof no person shall decorate electric light bulbs in stores, shops or other premises with paper or other combustible materials.
- "2.1.4.20. (1) Unless such light or flame shall be well necured in a glass globe, wire mesh carge or similar approved device no person shall take an open flame or light into any building, barn, vessel, boat or other place where highly flammable, combustible or explosive material is kept.
- " (2) No heating or lighting apparaitus or equipment capable of igniting flammable materials of any type stored or handled shall be used
  - (a) in the storage area of any warehouse storing rags, excelsior, hair or flammable or combustible material;
  - (b) in the work area of any shop or factory used in the manufacture, repair or renovating of mattresses or bedding; or
  - (c) in the work areas of any establishment used in re-upholstering of furniture.
- H. (1) Part 2 of the Code is hereby further amended as to section 2.1. thereof by adding at the end of article 2.1.5.2. of subsection 2.1.5. the following sentences:
  - " (4) The owner or whoever is in charge on behalf of the owner of a building other than a one-family or two-family dwelling which is used as a place of assembly shall be instructed by or on behalf of the owner of the building in the method of collapsing revolving doors and the doors shall be tested by collapsing at least once a month.
  - " (5) In any building containing a place of assembly as defined in section 1.5. all exterior doors through which access must be gained to the place of assembly and all main interior doors between the place of assembly and the exterior doors shall be
    - (a) so hinged that they will open freely outwards so as to facilitate the egress of people rapidly in the event of fire or other emergency, and
    - (b) equipped with a panic-type of boilt, bar lock or other fastening approved by the Fire Marshal and no other fastening device.

- (2) Part 2 of the Code is hereby further amended as to section 2.1. thereof by
  - (a) redesignating article 2.1.5.4. of subsection 2.1.5. of the said section as sentence (1) of the said article; and
  - (b) adding after sentence (1) of the said article as so redesignated the following new sentences:
  - " (2) Required stairways, hallways and other means of exit, including exterior open spaces to or through which exits lead, shall be kept adequately lighted at all times that the building served thereby is occupied.
  - " (3) Where the number of persons exceeds sixty in any room the artificial lighting of the room and of the exit ways therefrom shall be by electricity so arranged and supplied that notwithstanding an interruption of the supply of electricity all lights necessary for safe exit from the room and egress from the building will remain lighted.
  - (4) Where a building either
    - is used as a motel, a hotel, a nursing home, a hospital or a place of detention, regardless of its height, or
    - (ii) is over three stories in height regardless of its use

artificial lighting of all stairways and passages forming the means of egress from any portion of the building shall be by electricity so arranged and supplied that notwithstanding an interruption of the supply of electricity all lights which illuminate the said halls and stairways and are necessary for safe exit from the building will remain lighted. "

- I. Part 2 of the Code is hereby further amended as to section 2.1. by deleting sentence (4) of article 2.1.6.1. of subsection 2.1.6. of the said section and by substituting therefor the following sentences:
  - " (4) The storage and handling of liquefied petroleum gases shall be in accordance with the provisions of Canadian Standards Association B.149-1966 Installation Code for Gas Burning Appliances and Equipment as incorporated in Alberta Regulation 259/66 pursuant to the provisions of The Gas Protection Act of the Province of Alberta.
  - " (5) Any manufactured liquid or fluid commodity which contains flammable liquids as part of its constituents shall be considered as a flammable liquid and shall be classified as provided in article 2.1.6.3. according to the flash point of the mixture. "
- J. Part 2 of the Code is hereby further amended as to section 2.1. thereof by designating article 2.1.6.2. of subsection 2.1.6. of the said section as sentence (1) of the said article and by adding after the sentence as so designated the following new sentences:

- " (2) No person shall keep or store gasoline or benzine in quantities of one gallon or less unless it is placed in either
  - (a) an automatic self-closing container, or
  - (b) a sealed metal container provided both with a screw top and a pouring spout with a screw cap

and each container shall be identified as to contents and painted red.

- " (3) No person shall keep or store gasoline or benzine in excess of one gallon other than in an automatic self-closing container or as provided in article 2.1.6.6A. of this Code.
- " (4) No person shall carry or deliver gasoline or benzine into any building in an open or uncovered container.
- K. Part 2 of the Code is hereby further amended as to section 2.1. thereof by adding at the end of article 2.1.6.6. of subsection 2.1.6. of the said section the following new sentence:
  - " (5) In addition to complying with the other requirements of this article unless he first obtains a permit in writing from the Fire Marshal a person shall not
    - (a) handle or store a Class A liquid in excess of one gallon either within or outside of a building;
    - (b) handle or store a Class B liquid in excess of
      - (i) five gallons in a dwelling,
      - (ii) ten gallons in any other building, or
      - (iii) fifty gallons outside of a building:
    - (c) handle or store a Class C liquid in excess of
      - (i) twenty-five gallons in a building, or
  - (ii) fifty gallons outside of a building

except where otherwise permitted in this Code.

- " (6) No Class A liquid shall be kept or stored in any school, institutional or public building except for demonstration, mechanical or medicinal purposes.
- " (7) No person shall mix, store or handle flammable liquids for commercial purposes in open containers in frame buildings or in any building the whole or a porti of which is used as a dwelling. "

L. Part 2 of the Code is hereby further amended as to section 2.1. by adding after article 2.1.6.6. of subsection 2.1.6. of the said section the following new heading and articles:

# "Restrictions on Storage and Use in Dwellings

- "2.1.6.6A. (1) Notwithstanding sentence (5) of article 2.1.6.6. but subject to sentences (4) and (5) of this article no person shall keep or store a Class A liquid in any quantity in a dwelling.
- " (2) Except as otherwise permitted in this subsection and subject to the provisions of articles 2.1.6.7, and 4.1.6.10. of this subsection Class A liquids in excess of five gallons shall be kept or stored in tanks only as hereinafter described, except that this shall not prevent the filling and temporary storing of drums in wholesale warehouses.
- " (3) A Class A flammable liquid shall be drawn from tanks as provided in sentence (2) by means of pumps so constructed as to prevent leakage or spilling and so arranged as to control the amount of discharge and prevent leakage inside the building by any disarrangement of the apparatus.
- "

  (4) Notwithstanding the restriction in sentence (1) a person may keep in a garage which is attached to or a part of a dwelling a Class A liquid which is contained in a container complying with the requirements of article 2.1.6.2 or which is in the fuel tank of an automobile, an outboard motor for a boat or a gasoline operated garden tractor or lawn mower if the fire separation between the garage and the rest of the dwelling complies with the provisions of this Code and with The Building By-law.
- (5) Notwithstanding sentence (1) of this article a person may keep in a dwelling not more than one gallon of Class A flammable liquid which
  - (a) is kept in a container in which it is shipped and which complies with the applicable federal and provincial statutes and regulations governing the shipment of flammable liquids by public common carrier, and
  - (b) is a liquid prepared for use in a dwelling and is in common household use for such purposes.
- "2.1.6.68. (1) Subject to sentence (2) of this article no person shall use either gasoline or napiths in any quantity in any portion of a dwelling.
- (2) A person may use a Class A liquid in a garage attached to a dwelling if the separation of the garage from the dwelling complies with the requirement of sentence (4) of article 2.1.6.6A. for the operation of a motor vehicle, an outboard motor boat, a garden tractor, a lawn mower or a machine for the private removal of snow.

- M. Part 2 of the Code is hereby further amended as to section 2.1. by adding after subsection 2.1.6. the following new heading and subsection:
  - "2.1.6A. TANK VEHICLES FOR FLAMMABLE LIQUIDS
  - "2.1.6A.1. No person shall use a tank vehicle for transportation of flammable liquids unless he has a permit issued by the authority having jurisdiction for each tank vehicle so used.
  - "2.1.6A.2. (1) Tank vehicles shall be designed and constructed in accordance with the requirements of the Province of Alberta, especially but not limited to the requirements of the Public Service Vehicles Regulations.
  - (2) Without limiting the generality of the requirements of sentence (1) no person shall operate a tank wagon, tank truck, tank wehicle or other vehicle for the transportation of petroleum or other Class A flammable liquids within the City unless the tank or tank portion of such vehicle is constructed throughout of open hearth or bine annealed steel and is approved by the Chief Boiler Inspector appointed under The Boilers and Pressure Vessels Act, Revised Statutes of Alberta, 1955, chapter 27, as amended.
  - \*2.1.6A.3. No person shall drive a tank vehicle which is not equipped with rubber tires on all wheels.
  - "2.1.6A.4. (1) No person shall use a tank wagon, tank truck, tank vehicle or other vehicle for the transportation of petroleum or other Class A flammable liquids unless the tank structure of the vehicle has provision for bonding of the vehicle to the pipe by which the vehicle is filled with the flammable liquid during truck loading operations so as to afford protection against static electricity.
  - (2) No vehicle on which is mounted or carried any transport tank, cargo tank, storage tank, portable cylinder or other container which is intended to be used for the storage or transportation of any petroleum or liquefled petroleum gas shall be operated within the City unless the same is equipped with the proper grounding device to afford protection against static electricity which device shall be kept in operation at all times.
  - "2.1.6A.5. No person shall operate a tank vehicle with draw-off valves or faucets projecting beyond the frame at the rear of the vehicle which are not adequately protected by bumpers or similar protective devices against collision with other vehicles or objects.
  - "2.1.6A.6. (1) No person shall operate a tank vehicle having any lighting device other than electric lights.

- " (2) All lighting circuits on any tank vehicle shall be equipped with fuses or automatic circuit breakers or other suitable overcurrent protection adequate in the opinion of the authority having jurisdiction.
- " (3) The wiring in lighting circuits of tank vehicles shall have sufficient carrying capacity and mechanical strength to avoid short circuits or breakage and shall be secured, insulated and protected against physical damage in keeping with good practice.
- "2.1.6A.7. (1) No person shall operate a tank vehicle with a full trailer or semi-trailer unless
  - (a) each trailer or semi-trailer is equipped with reliable brakes on all wheels, and
  - (b) adequate provision is made for their efficient operation from the driver's seat of the vehicle drawing the trailer or semi-trailer.
- ": (2) No person shall drive a tank vehicle consisting of a tractor and trailer or semi-trailer which
  - (a) whips or swerves from side to side dangercusly, or
  - (b) does not follow substantially in the path of the tractor.
- "2.1.6A.8. (1) No person shall use a tank vehicle which is not equipped and maintained with at least one approved hand fire extinguisher of a type suitable for extinguishing flammable liquid fires.
- " (2) All persons owning or operating a tank vehicle shall assure that all fire extinguishers required pursuant to this subsection
  - (a) are kept in good operating conditions at all times and
  - (b) located in an accessible place on each tank vehicle.
- "

  (3) The number and size of the fire extinguishers required by this subsection shall be adequate in the opinion of the authority having jurisdiction and shall comply with all applicable provincial regulations including but not limited to the Public Service Vehicles Regulations.
- "2.1.6A.9. (1) Unless tank vehicles are in proper repair, devoid of accumulation of grease, oil or other flammables and free of leaks they shall not be operated.
- " (2) The driver, operator or attendant of a tank vehicle shall not leave the vehicle while it is being filled with or discharged of flammable liquids.

- " (3) For the purposes of this subsection a delivery hose, when attached to a tank vehicle, shall be considered to be part of the tank vehicle.
- " (4) No person shall allow the motor of a tank vehicle or tractor to be in operation during the making and breaking of the hose connections.
- " (5) Unless loading or unloading of a tank vehicle containing flammable liquid is done using a power pump the motor of the tank vehicle or tractor shall be shut down during such loading or unloading operations.
- " (6) No person shall load a cargo tank with flammable liquid unless the tank is bonded to the fill pipe when loading.
- (7) The bond wire connection between the cargo tank and the fill pipe shall be made before opening the dome covers of the cargo tank.
- " (8) The bond wire shall be maintained in place during the entire filling operation and the dome covers on the cargo tank shall be securely closed before the bond wire is disconnected from the tank.
- " (9) No person shall completely fill a cargo tank or compartment thereof with a flammable liquid.
- " (10) The vacant space remaining in the cargo tank or compartment thereof used in the transportation of flammable liquids shall not be less than one percent by volume of the tank or compartment.
- " (11) Sufficient space shall be left vacant in every cargo tank or compartment thereof filled with a flammable liquid to prevent leakage from or distortion of such tank or compartment by expansion of the contents due to rise in temperature in transit.
- "2.1.6A.10. No person shall smoke while criving, making deliveries with or to, filling or making any repairs to tank vehicles used for transportation of flammable liquids whether there are flammable liquids in a tank vehicle or materials."
- "2.1.6A.11. (1) No person shall load a comment of a tank vehicle which has contained a Class A flammable liquid on the prior loading until such compartment and all gravity discharge pixing connected therewith has been completely desired of all Class A flammable liquid.
- tank vehicle are attached to a common outlet or manifold no compartment shall contain Class .A flammable liquid while any other compartment connected to the same outlet or manifold contains Class B flammable liquid unless some effective means is provided to prevent intermixing.

- equipped with a pump, meter, or wet hose or any combination thereof or has piping which does not drain completely such equipment or piping shall not be used for the delivery of Class B flammable liquid if its prior use has been for Class A flammable liquid unless the pump, meter, wet hose or incompletely drained piping shall first be flushed with a quantity of Class B flammable liquid sufficient to effectively clear such device of all Class A or Class B flammable liquid or shall be cleared of all Class A flammable liquid by some method equally effective in the opinion of the authority having jurisdiction.
- " (4) The volume of Class B flammable liquid used for flushing shall be at least two times the volume of the pump, meter, wet hose or highing.
- " (5) Flushing preparatory to change of use shall be done at the point of loading only.
- " (6) In the event that the tank vehicle is equipped with a pump for the purpose of discharging from or loading into the tank of such vehicle no such pump nor its accessory equipment including hose shall be alternatively used for the handling of Class A and Class 9 flammable liquids unless such pump and its accessory equipment have been flushed or otherwise cleared of Class A flammable liquids prior to being used for delivery of Class B flammable liquids.
- "2.1.6A.12. (1) No tank vehicle shall be left unattended on any street, highway, avenue or alley, provided that this shall not prevent: a driver from the necessary absence from the truck in connection with the delivery of his load, except that during actual discharge of the liquid some responsible person shall be present at the vehicle, nor shall it prevent stops for meals during the day or night if the street is well lighted at point of parking.
- (2) Tank vehicles containing flemmable liquids shall not be parked out of doors at any one point for longer than one hour, except off the streets, and at least 25 feet from any public, institutional or residence building.
- " (3) Tank vehicles shall not be purked or garaged in any buildings other than those specifically approved for such use by the Fire Marshil.
- "

  (4) No transport tank, storage tank, portable cylinder, cargo tank or other container used or intended to be used for the transportation or storage of petroleum or liquefied gas small be housed, repaired or stored in any garage, repair shop or other enclosed building unless the garage, repair shop or other building complies with article 2.1.6A.14. of this Code and has been approved by the Fire Marshal for such purpose.

- " (5) A tank, cylinder or other container for petroleum or liquefied petroleum gas shall be purged by the method known as steam purging and in the manner set out in article 2.1.6A.13. before it is repaired or renovated.
- "2.1.6A.13. (1) Where a container of any type is to be steam purged for any purpose of this Code the person responsible for carrying out the steam purging shall
  - (a) connect a pipe or tube to the top vapour opening of the container to be purged to relieve vapour pressure;
  - (b) install on the free end of the pipe or tube an approved type of flare \*tandpipe and industrial burner of a flame retention type;
  - (c) inject steam into the container under sufficient pressure and of sufficient quantity to displace the liquid petroleum gas or petroleum vapours which may be found or occur in the container and to raise the temperature of the container to between 180 to 210 degrees farenheit in order to open the metal pores and release the container vapours:
  - (d) continue the injection of the steam and the purging process for sufficient time to remove completely all vapours from the container as shown by a test made as hereinafter provided; and
  - (a) test the container with an approved gas detector or explosive meter.
- " (2) The process shall be continued until the gas detector used in the test as provided in clause (e) of sentence (1) reads zero.
- (3) If upon testing the cortainer with the gas detector or explosive meter the reading is other than zero the person responsible for steam purging the container shall repeat the process set out in sentence (1) until the detector or meter registers zero.
- "2.1.6A.14. No building or proposed building shall be approved by the Fire Marshal for storage or repair of any transportation tank, cargo tank, gitorage tank, portable cylinder or other container used or intended to be used for storage or transportation of liquefied petroleum gas or for storage or loading or unloading of such gas unless:
  - (a) such building is constructed predominantly of non-combustible material and the floors thereof are constructed of material which will not cause sparking capable of igniting liquefied petroleum gas when struck by a metal object; and

- (b) the area under the floor of such building is
  - (i) solid filled, or
  - (ii) effectively ventilated and screened so as to avoid the accumulation of gas; and
- (c) the walls or roof are designed and constructed so as to provide an explosion relief area of at least one square foot for every eighty cubic feet of air space in the building, and in the case of any building where the area under the floor is not solid filled, such explosion relief area is provided below as well as above the floor; and
- (d) explosion type hardware is installed where wired glass is used in any explosion relief area; and
- (e) at least two means of direct exit located as remotely from one another as practicable are provided from every working no part of the building is over from any such exit; and
- (f) such building is adequately ventilated to prevent the accumulation of gas, with special regard to the floor area; and
- (g) all heat for the building is provided from a source outside the building located at such distance from the building that no flame-heated apparatus capable of igniting liquefied petroleum gas is closer than twenty-five feet to the building or any other part of the premises where liquefiedpetroleum gas is handled or stored.
- "2.1.6A.15. No person shall smoke and no open flame shall be errosed in or within the vicinity of any building used for
  - (a) the storage of any cargo tank, transportation tank, storage tank, portable cylinder or other container used or intended to be used for the storage or transportation of liquefied petroleum gas, or
  - (b) the storage, loading, unloading or distribution in any manner of liquefied petroleum gas.
- "2.1.6A.16. Signs bearing the words "NO SMOKING" and "DANGER INFLAMMABLE" shall be posted
  - (a) in conspicuous locations inside, and
  - (b) immediately adjacent to the outside of every entrance to

every building used for storage or repair of any cargo tank, transportation tank, storage tank, portable cylinder or other container used or intended to be used for the storage or transportation of liquefied petroleum gas and every building used for the storage, loading,

## "2.1.6A.17. Every building used for

- (a) the storage or repair of any cargo tank, transportation tank, storage tank, portable cylinder or other container used or intende to be used in the storage or transportation of liquefied petroleum gas, and
- (b) storage, loading, unloading or distribution of liquefied petroleum gas

shall be provided with at least one fire extinguisher of a capacity of not less than twenty pounds of dry chemical or carbon dioxide located so as to be easil accessible to any person employed in or having acces to such building and every such employee shall be instructed in the use of the fire extinguisher.

"2.1.6A.18. No flammable cleaner, cily waste or other flammable debris shall be allowed to be, remain or accumulate in or in the vicinity of any building used for

- (a) the storage or repair of any cargo tank, transportation tank, storage tank, portabl cylinder or other container used or intend to be used in the storage or transportatio of liquefied petrobeum gas, or
- (b) storage, loading, unloading or distributio in any manner of liquefied petroleum gas.

"2.1.6A.19. Every building used or intended to be use for

- (a) storage or repair of any cargo tank, trans portation tank, storage tank, portable cylinder or other container used or intend to be used for the storage or transportati of liquefied petroleum gas, or
- (b) storage, loading, unloading or distributic in any manner of liquefied petroleum gas

shall have every cupboard and locker in the building and all apparatus used therein kept free from grease oil, old paint, oily waste or other debris.

- "2.1.6A.2O. No apparatus or equipment designed or int for filling tanks with liquefied petroleum gas or for otherwise moving or handling liquefied petroleum gas shall be used unless the apparatus or equipment is of type approved by the Fire Marshal and is in addition wherever practicable of a type approved by the Underwriters' Laboratories of Canada.
- "2.1.6A.21. No electrical wiring, motor or other electrical apparatus shall be used in or about any building also used for the housing or storage, or loading or unloading, or handling or distribution howsoever of liquefied petroleum gas unless such electrical wiring, motor or other electrical apparatus is of a type approved pursuant to the provisions of the Canadian Electrical Code, Part 1 (Eighth Edition) published by Canadian Standards Association as Booklet C22.1-1962 and declared to bin force under The Electrical Protection Act, RevisStatutes of Alberta, 1955, chapter 99 by Alberta

Regulations 614/62, appearing in <a href="The Alberta Gazette">The Alberta Gazette</a>, December 31, 1962 as the same shall be amended from time to time, and unless all metal parts of any such building and any piping, machinery or other metal apparatus are effectively grounded to remove static electricity.

- "2.1.6A.22. (1) Every lot or site upon which any cargo tank, transportation tank, storage tank, portable cylinder or other container used or intended to be used for the storage or transportation of liquefied petroleum gas is located and any building used in the filling of tanks, loading, unloading or distribution of liquefied petroleum gas in any manner shall be fenced by a metallic mesh fence grounded not less than every one hundred fifty feet of length and resonably able to repel intruders.
- " (2) Every gate or entrance to a fence required by sentence (1) shall be connected by an underground cable and shall be kept closed and securely locked when no person employed in connection with the lot or site is present thereon.
- "2.1.6A.23. Every temporary pipe or base connection used at or in the unloading of liquefied petroleum gas from any cargo tank, tank car, transportation tank or storage tank shall be in the open and the cargo tank, tank car, transportation tank or storage tank shall be effectively grounded to remove static electricity.
- "2.1.6A.24. (1) Notwithstanding any other provision contained in this subsection 2.1.6A. or elsewhere in this Code every vehicle fitted with a liquefied petroleum gas tank and making use of such gas from the tank as fuel to operate the vehicle may be stored, parked or kept in a private garage located no less than five feet distant from any building used for a dwelling or for sleeping purposes or in which any person is employed if such garage is ventilated on four sides with adequate ventilators, each not less than four square feet in area and located not over six feet above ground level.
- " (2) No vehicle of the type mentioned in septence (1) shall be stored in a basement of any building or in a garage attached to another building.
- "2.1.6A.25. (1) All vehicles fitted with a proper liquefied petroleum gas tank as a fuel reservoir and not used in the transportation of petroleum or liquefied petroleum gas may be stored in a building approved by the Fire Marshal or his authorized representative.
- "'. (2) The Fire Marshal or his authorized representative in his discretion may approve a building for the purposes of sentence (1) which appears to him to be safe for repair of vehicles using liquefied petroleum gas for fuel notwithstanding the fact that the building may not comply with the provisions of sections 2.1.6A.14. or 2.1.6A.23.
- "2.1.6A.26. Unless the tank compartment is properly ventilated and where the tank compartment is closed such ventilation is provided by an opening not less than eight square inches in area located at the floor level as required by the Public Service Vehicles Regulations no vehicle on which a liquefied petroleum

- N. (1) Part 2 of the Code is hareby further amended as to section 2.1. by deleting the heading "2.1.8. PORTABLE EXTINGUISHERS" and by substituting therefor the heading "2.1.8. FIRE PROTECTION EQUIPMENT".
- (2) Part 2 of the Code is hereby further amended as to section 2.1. by adding after the designation of subsection 2.1.8. the following subtitle:

## "Portable Extinguishers"

(3) Part 2 of the Code is hereby further amended as to section 2.1. by adding after subsection 2.1.8. the following new heading and subsection:

## "2.1.9. FIXED FIRE PROTECTION EQUIPMENT

"2.1.9.1. The requirements of this subsection shall apply to new and existing buildings and land except that articles 2.1.9.4., 2.1.9.5. and 2.1.9.6. shall not apply where equivalent or more stringent requirements are enforced under The Building By-law.

#### "2.1.9.2. (1) The Fire Marshal shall

- (a) survey or cause to be surveyed by the inspectors of the Fire Department each building occupied other than by a single family or by two families, and
- (b) specify suitable fire detecting devices or other fire protection equipment which shall be provided on each floor of every office building which is wholly or partly occupied by offices, in or near boiler rooms, kitchens of all such buildings, storage rooms in which a substantial amount of combustible material is placed, rooms in which hazardous manufacturing processes are carried on, garage sections and other places of a general hazardous nature.
- pursuant to sentence (1) may consist of automatic fire alarm systems, automatic sprinkler or weter spray systems, standpipe and hose fixed or portable fire extinguishers of a type suitable to the probable cause of fire, suitable asbestos blankets, manual or automatic covers, carbon dioxide or other inert gas extinguisher systems.
- " (3) Where there are specially hazardous processes or storages in any building the Fire Marshal may require appliances of more than one type or may require special systems designed to fit the circumstance."
- "2.1.9.3. (1) The owner or person responsible for or in charge of a building on behalf of the owner shall maintain in operative condition at all times all fire detecting devices or fire extinguishing appliances or systems required pursuant to article 2.1.9.2. or which has been installed in compliance with any permit or order or because of any provision of this Code as amended from time to time, The Fire Prevention Act or any other statute or regulation of the Province of Alberta or of the Government of Canada.

- (2) The owner of a building, the person in charge thereof, an occupant of the building or any other person required by sentence (1) to maintain fire detecting devices or extinguishing appliances or systems shall not do anything to reduce the effectiveness of the protection so required other than to temporarily reduce or discontinue the protection where necessary to make tests, repairs, alterations or additions.
- " (3) Where it is necessary to make tests, repairs, alterations or additions the person making such shall notify the Fire Mershal before the tests, repairs, alterations or additions are started unless the equipment is to be again placed in full working order without any interruption in the making of the test, repair, alteration or addition.
- (4) All equipment being tested, repaired, altered or added to shall be forthwith put back in full working order when the work thereon has been completed.
- "2.1.9.4. (1) Where the basement of a building is used for the handling or storage of combustible goods or merchandise and has an area exceeding 3500 square feet the owner chall cause an approved automatic sprinkling system to be installed therein.
- " (2) Notwithstsnding sentence (1) automatic sprinkler equipment shall be required only in such portions of public buildings, institutional buildings and residence buildings as are used for storage purposes or as work shops.
- " (3) For the purposes of this article combustible goods or merchandise include
  - (a) all articles made of wood, paper or rubber,
  - (b) articles containing flammable liquids, and
  - (c) articles packed with quantities of excelsior, moss or paper

and other articles, goods or merchandise of equivalent or greater combustibility.

- "2.1.9.5. (1) Except for a building not over six storeys in height which is equipped with an approved sprinkler system all buildings exceeding fifty feet in height which are not provided with four inch or larger standpipes shall be equipped with standpipes conforming to nationally recognized standard practice.
- " (2) The standpipes required by sentence (1) shall be installed in accordance with the requirements of the Fire Marshal.
- "2.1.9.6. (1) Except as otherwise provided in this article an approved automatic sprinkler system shall be installed in buildi: s which are occupied above the height permitted by the following Table:

Table 2.1.9.A.	Height in Storeys	
Occupancy Classification	Ordinary Construction	Wood Frame
Documents bedridden or involun-		
tarily detained	2	1
Other institutional buildings	3	2
Residence Buildings, other than		_
multi-family houses and dwellings	4	3

- " (2) Notwithstanding sentence (1) a building may be occupied one storey higher than that specified in Table 2.1.9.A. without sprinklers being installed if the building is equipped with an approved automatic fire alarm system.
- "2.1.9.7. (1) All buildings adjoining covered lanes and malls shall have the grade level and main floor area covered by automatic sprinkler protection where any building openings including windows face the covered lane area.
- " (2) All covered lane areas shall be sprinkler protected.
- (3) All buildings of ordinary construction adjoining covered lanes or malls shall be fully sprinkler protected throughout.
- " (4) All covered lane areas shall be ventilated every fifty feet.
- "2.1.9.8. (1) There shall be installed in every building of six or more storeys in height above the finished grad of the ground outside which is equipped with more than one elevator on the street floor adjacent to the elevator or otherwise located to the satisfaction of the Fire Marshal a glass fronted but connaining an elevator control key of a type which when used in the elevator will over ide the normal elevator controls to enable members of the Fire Department to use all elevators in the building exclusively for Fire Department personnel in preventing or combatting a fire.
- " (2) The requirement of sentence (1) shall come into force for all buildings within six months from the passing of the by-law incorporating this Code and shall thereafter apply to all new buildings. "
- N. (4) Part 2 of the Code is hereby further amended as to section 2.1. by adding after subsection 2.1.9. the following new heading and subsection:
  - "2.1.10. MAINTENANCE AND USE OF PRIVATE FIRE HYDRANTS
  - "2.1.10.1. Where a private fire hydrant has been installed at the expense of the owner of the premises on which it is installed the owner thresof shall be solely responsible for the maintenante of the hydrant and for any and all repairs to be made thereto and for all cost and risk arising out of or connected with the said maintenance or repairs.

- "2.1-10.2. The Fire Marshal may inspect a private fire hydrant at any time to ascertain if it is in proper working condition and is maintained to the City standards and if the inspection discloses the need of any maintenance or repairs the Fire Marshal may give notice thereof to the owner of the premises on which the private fire hydrant is located.
- "2.1-10.3. Notwithstanding the City making or the failure of the City to make any inspection of a hydrant or other device and notwithstanding the omission of the Fire Marshal to give a notice requiring repair of a hydrant or other device, the owner of premises on which the same is constructed shall continue to be responsible for ensuring that the hydrant or other device is at all times in good operating condition, that all valves between it and the waterworks system are open and that a supply of water is at all times available to the hydrant or other device.
- "2.1.10.4. No person other than a member of the Fire Department of the City or another City employee designated for that purpose shall turn on, tamper or interfere with a private fire hydrant without first obtaining the permission of the Fire Marshal or of the City as given by some City official designated for that purpose.
- "2.1.10.5. Subject to permission being granted pursuant to this section a hydrant or other device provided for in this section shall be used only in fighting fires, in conducting fire drills or exercises, or when testing the hydrant or other device.
- "2.1.10.6. The Fire Department of the City may use the hydrant or other device for combatting or preventing a fire or preventing the spread of fire, either on the owner's premises or anywhere in the vicinity thereof, without notice to or permission from the owner.
- "2.1.10.7. Where a private hydrant constructed before the thirtieth day of October, A.D. 1961 does not conform to the City specifications for such fire hydrant in all material points the Fire Marshal may give notice to the owner of the premises to have the hydrant so modified that it may be operated by the Fire Department with City keys, tools, and equipment and in connection with couplings and hose used by the City.
- "2.1.10.8. If a private fire hydrant constructed either before or after the thirtieth day of October, A.D. 1961 does not comply with the standard specifications used by the City to the extent which will enable the hydrant to be used by the City Fire Department in fighting fire without interfering with the combat of the fire then the Fire Marshal may give notice to the City Engineer to have the City water supply to the said fire hydrant turned off. "

- O. (1) Part 2 of the Code is hereby amended as to section 2.2. thereof by designating article 2.2.1.2. of subsection 2.2.1. of the said section as sentence (1) thereof and by adding to the said article the following new sentence:
  - " (2) In any building containing a place of assembly all exterior doors through which access must be gained to the place of assembly and all main interior doors between the place of assembly and the exterior doors shall be
    - (a) so hinged that they will open freely outwardly to facilitate the egress of people rapidly in the event of a fire or other emergency; and
    - (b) equipped with an approved panic-type of bolt, bar lock or other fastener and with no other fastening device.
- (2) Part 2 of the Code is hereby further amended as to section 2.2. thereof by adding the following new sentence to article 2.2.1.11. of subsection 2.2.1. of the said section:
  - " (3) The keeper of the place of assembly, hotel or motel shall ensure that each employee of the said building is instructed in the method of collapsing any revolving doors which may be placed in the building and that the doors are tested by collapsing them at least once a month. "
- P. Part 2 of the Code is hereby further amended as to section 2.3. thereof by adding at the end of subsection 2.3.2. the following new heading and subsection:
  - "2.3.2A. AUTOMOBILE TIRE REBUILDING PLANTS
  - "2.3.2A.1. (1) A person constructing, maintaining or operating an automobile tire rebuilding plant shall comply with all other applicable requirements of the Code as well as with the provisions of this subsection.
  - (2) No person shall construct, maintain or operate a tire recapping or rebuilding plant unless and until he has obtained a permit from the Fire Marshal.
  - "2.3.2A.2. All floor openings including those required or used for stairs and elevators shall be enclosed in a manner acceptable to the Fire Marshal.
  - "2.3.2A.3. (1) No person shall install or operate a buffing machine in an automobile tire rebuilding plant unless the room in which it is installed or operated is separated from the remainder of the plant by construction having a fire resistance rating of not less then one hour and with each door opening to the room protected by an approved fire door.
  - (2) Each buffing machine in an automobile tire rebuilding plant shall be connected to an ample dust collecting system discharging to a suitable container which shall be cleaned at intervals sufficiently frequent to enable the dust collecting system to operate efficiently in the opinion of the Fire Marshal.

- "2.3.2A.4. A room where rubber cement is used or mixed or where flammable solvents are applied shall be equipped with effective mechanical or natural ventilation.
- Q. Part 2 of the Code is hereby further amended as to section 2.3. by designating the first grammatical sentence of article 2.3.9.1. of subsection 2.3.9. of the said section as sentence (1) thereof and by designating the second grammatical sentence of the said article as sentence (2) thereof and adding to the said article as so designated the following new sentences:
  - " (3) Unless and until he has received a permit from the Fire Marshal no person shall operate an oven to which this Code applies and no person shall continue to operate such an oven unless he is the holder of such a valid and subsisting permit.
  - " (4) An applicant for a permit to operate an oven to which this Code applies shall present with his application plans showing all essential details and proposed methods required for safe operation of the oven.
- R. (1) Part 2 of the Code is hereby further amended as to section 2.3. by deleting article 2.3.10.1. of subsection 2.3.10. of the said section and by substituting therefor the following article:
  - "2.3.10.1. (1) The construction, use and occupancy of garages shall conform to the requirements of The Building By-law as well as to requirements of this subsection.
  - " (2) Unless and until he has obtained a permit from the Fire Marshal no person thall use any building, shed or enclosure for the purpose of servicing or repairing any motor vehicle for consideration."
- (2) Part 2 of the Code is hereby further amended as to section 2.3. thereof by adding after article 2.3.10.4. Of subsection 2.3.10. of the said section the following new articles:

## "2.3.10.5. (1) Unless

- (a) the garage is equipped with an automatic sprinkler system, or
- (b) the processes are carried on in a room enclosed by walls and a ceiling of construction having a fire resistance rating of not less than one hour with all openings therein protected by approved fire doors or fire windows and with no opening from such room to any upper storey

no welding or cutting or other process involving direct application of flame shall be carried on in g garage housing more than twenty automobiles on any Floor-

" (2) No person shall carry on regains of any kind in any garage the floor of which is more than two feet below the drive-in entrance level.

- "2.3.10.6 No flammable liquid with a flash point below one hundred degrees Farenheit shall be used in a garage for washing parts or removing grease or dirt except in a specially closed machine designed for the purpose or in a separate well-ventilated room enclosed by walls having a fire resistance rating of not less that two hours with openings therein protected by fire doors or fire windows and with no opening from such room to any upper or lower store
- "2.3.10.7. (1) No person shall fill the fuel tank of a motor vehicle except directly through a hose from an approved pump attached to an approved portable tank or drawing from underground storage tanks,
- " (2) Storage and handling of all flammable liquids shall conform with the requirements of subsection 2-1.6.
- " (3) No person shall transfer gasoline from one tank to another or from a tank to any other place in a garage in an open container.
- " (4) Garage floors shall drain to a sump containin oil separators or traps inside the building located and constructed as approved by the Plumbing Inspector of the Building Inspection Division of the City Planning Department
- " (5) Contents of oil separators or traps of floor drainage syst ms of a garage shall be collected at sufficient frequent intervals to prevent oil from being carried into the sewer and removed from the premises.
- " (6) No one shall place oily waste or waste oils i any container other than a self-closing metal can.
- S. (1) Part 2 of the Code is hereby further amended as to secti 2.3. thereof by designating article 2.3.11.3. as sentence (1) and adding thereto the following sentences:
  - " (2) No person other than an operator or an employee of a service station or of a garage shall sell basoline or benzine by retail.
  - " (3) A vendor of gasoline or benzine except when he is delivering directly to an underground tank or to a fuel tank of a mator vehicle shall not sell or deliver gasoline or benzine to any person unless
    - (a) If the quantity exceeds one gallon it is placed in an automatic self-closing container which is painted red, or
    - (b) if the quantity is one gallon or less it is placed in an automatic self-closing container or in a metal container fitted with a screw top and a spout with a screw cap, the top and cap of which are both fixed firmly in position before the gasoline or benzine is taken from the premises of the vendor.

- (4) A vendor of gasoline or benzine shall comply with the applicable provisions of subsection 2.1.4. with respect to the storage of larger quantities of gasoline or benzine.
- (2) Part 2 of the Code is hereby further amended as to section 2.3. thereof by deleting the words "or self-closing faucet" where the same appear in sentence (4) of article 2.3.11.5. of subsection 2.3.11. of the said section.
- (3) Part 2 of the Code is hereby further amended as to section 2.3. thereof by designating article 2.3.11.7. as sentence (1) of article 2.3.11.7. of subsection 2.3.11. of the said section and by adding thereto the following sentences:
  - " (2) Notwithstanding that the liquid is to be furnished in a container which complies with the requirements of article 2.1.6.2. unless and until the person desiring the liquid has in his possession and displays to the person from whom he is to obtain such liquid a valid subsisting permit in writing issued by or on behalf of the Fire Harshal
    - (a) no person in possession thereof shall sell, give away or otherwise furnish and
    - (b) no person shall buy, accept or otherwise obtain

a Class A flammable liquid in a quantity in excess of one gallon unless the same is delivered from a tank truck directly to storage tanks which comply with the requirements of this Code or directly from a service pump to

- (c) the fuel tank of a vehicle, or
- (d) the fuel reservoir of a boat

propelled by the liquid.

- " (3) The prohibition contained in sentence (1) does not apply to the sale or furnishing of a Class A or a Class B flammable liquid directly to the carriage tank of a tank vehicle if it complies with the provisions of subsection 2.1.6A. of this Code.
- " (4) Subject to the provisions of sentence (5) of this article no person who is not
  - (a) a vendor of petroleum products being licensed as required by The Calgary License By-law and by the appropriate provincial legislation, or
  - (b) a contractor authorized to have Class A flammable liquids in his possession in tanks which comply with the provisions of subsection 2.1.6., or
  - (c) a person, either natural or body corporate, operating a public service vehicle to furnish freight or passenger services to the public

unless he is in possession of a valid subsisting permit in writing issued by or on behalf of the Fire Marshal allowing such person to purchase and have possession thereof shall have on or about the premises of which he is the owner or which are in his control or shall otherwise have in his possession more than one gallon of Class A flammable liquid.

- " (5) Notwithstanding the provisions of sentence (4) no permit is required for the possession and storage of a Class A flammable liquid contained in
  - (a) the fuel tank of a vehicle, or
  - (b) in quantities not in excess of five gallons in the fuel reservoir of a boat

propelled by the liquid.

- (4) Part 2 of the Code is hereby further amended as to section 2.3. thereof by adding to article 2.3.11.8. of subsection 2.3.11. of the said section the following sentences:
  - " (5) Class A and Class B flammable liquids shall not be transferred from underground tanks otherwise than by means of fixed pumps so designed and equipped as to allow control of the flow and to prevent leakage or accidental discharge.
  - " (6) A person installing and maintaining pumps required by sentence (5) shall provide a supplementary means outside of the dispensing device whereby the source of electric power by which the device is operated can be readily disconnected in the event of fire or other accident.
  - " (7) No person shall install, maintain or operate a dispensing device for a Class A or a Class B flammable liquid which is not of an approved type.
  - " (8) No person shall dispense a Class A or a Class B flammable liquid by pressure or gravity from drums, barrels and similar containers.
  - (9) No person shall use a gear pump or similar positive displacement device taking suction through the top of the container of the flammable liquid to dispense the said liquid.
  - " (10) Unless the tank has been approved as a pressure vessel for the use to which it is subjected no Class A or Class B flammable liquid shall be dispensed by a device that operates through pressure within a storage tank.
  - (11) No device of the type mentioned in sentence (1)) shall be approved if it uses air or gas pressure for dispensing a Class A or Class B flammable liquid.
- T. Part 3 of the Code is hereby amended as to section 3.2. by deleting all of subsection 3.2.2. "FIREWORKS" and by substituting therefor the following subsection:

## "3.2.2. FIREWORKS

## "3.2.2.1. In this subsection

- Act means the Explosives Act, Revised Statutes of Canada, 1952, chapter 102, as amended from time to time.
- Explosives Regulations means the regulations made by the Governor General in Council on the recommendation of the Minister of Mines and Technical Surveys of Canada, as amended from time to time.
- Firecracker means a firework which explodes
  when ignited with an instantaneous
  explosion and detonation and does not
  make any subsequent display or visible
  effect after the explosion and
  - (i) includes those devices commonly known as Chinese firecrackers but
  - (11) does not include paper caps containing not in excess of an average of twenty-five onehundredths of a grain of explosive used per cap or device for use with such caps.
- Firework means a manufactured device containing combustible or explosive chemicals capable of producing sustained visible pyrotechnic effects of coloured or plain lights by the composition of the chemical constituents thereof such as firework showers, fountains, golden rain, lawn lights, pinwheels, Roman candles and sparklers, but does not include
  - (i) a firecracker, or
  - (ii) an article or device which is not classed under the Explosives Regulations as shop goods.

## Sale of Fireworks

- "3.2.2.2. (1) No person shall sell, idvertise for sale, offer for sale, give or distribute any fire-crackers in the City.
- " (2) Subject to the provisions of sentence (3) no person shall sell, offer for sale, give or distribute to any person under the age of twenty-one years fireworks of any description.
- " (3) Notwithstanding sentence: (1) and (2) but subject to the other by-laws of the City applicable to licensing and sale of goods a licenset venidor may sell paper caps, toy pistols, toy cannon or toy guns for the use of such caps, the explosive context of which is not in excess of twenty-five one-hundredtis of a grain per cap.
- (4) No person shall ignite, set off or discharge firecrackers in any manner in any place within the boundaries of the City of Calgary. "

# Private Displays of Fireworks

"3.2.2.3. A person over twenty-one years of age may hold a display of fireworks on any land belonging to him or on any other privately owned land where the owner thereof has given permission for such a display or discharge of fireworks.

## Regulations on Public Discharge of Fireworks

- "3.2.2.4. (1) Except as provided in this section no person shall discharge any fireworks on any public street, square, park, land belonging to the City or to the Crown in the right of Canada or of the Province of Alberta or in any land to which the public has access as of right or by license implied or expressed of the owner.
- " (2) Fireworks displays may be made by persons or groups who obtain a permit therefor from the City and who arrange for the bond or insurance required by this By-law.
- " (3) Permits shall be issued only to persons or groups of persons
  - (a) who ergage a competent operator to discharge the fireworks,
  - (b) who are able to make and do make adequate provisions for
    - the safety of all persons who may be allowed to attend or observe the fireworks display,
    - (ii) the protection of public and private property, and
    - (iii) the prevention of fire resulting from the fireworks display.
  - (c) furnish the bond or insurance required by sentence (5).
- (4) A person or persons wishing to set off or display fireworks shall apply to the Fire Marshal for the permit by an application in writing made at least ten days in advance of the date of the display-
- (5) The application for the permit shall be accompanied by an undertaking to furnish a bond or a public liability policy in an amount adequate to cover all injury, including death, or damage which may or could result from the issue of the permit or the obtaining, storing, discharging or setting off of the fireworks.

## Disposal of Undischarged Fireworks

"3.2.2.5. Where there are any fireworks remaining after some of the fireworks have been discharged pursuant to either article 3.2.2.3. or article 3.2.2.4., the person responsible for the private or public firing of them

shall assure that the remaining fireworks are stored in a manner required by the Explosive Regulations or disposed of in a way which will prevent injury or accidential ignition of the fireworks. "

U. Part 3 of the Code is hereby amended as to section 3.2. by adding after subsection 3.2.11. the following new subsection:

#### "3.2.12. MAGNESIUM

- "3.2.12.1. This subsection applies to the storage, handling and processing of magnesium.
- "3.2.12.2. No person shall melt, cast, heat treat, machine or grind a quantity of magnesium in excess of ten pounds unless and until he has obtained a permit from the Fire Marshal.
- "3.2.12.3. (1) Where magnesium pigs, ingots and billets are stored out of doors no pile shall exceed a quantity of one million pounds and the piles shall be separated by aisles of not less width than one-half of the height of the pile.
- " (2) Where magnesium in any of the forms mentioned in sentence (1) is stored outside of a building the piles of magnesium shall not be placed nearer to combustible material or buildings on the same or adjoining property than a distance of not less than equal to the height of the piles nearest the combustible material or building.
- (3) Where pigs, ingots and billets of magnesium are stored in buildings
  - (a) the floors of the buildings shall be of non-combustible construction,
  - (b) the piles of magnesium shall not be in excess of five hundred thousand pounds by weight, and
  - (c) the piles of magnesium shall be separated by aisles of not less than one-half of the height of the pile.
- "3.2.12.4. No person shall install, maintein or operate a melting pot for magnesium elsewhere than on a floor of non-combustible construction.
- "3.2.12.5. The size of storage piles of magnesium in foundries and processing plants
  - (a) shall not exceed 1,250 cubic feet in volume, and
  - (b) shall be separated by aisles not less in width than one-half the height of the pile.
- "3.2.12.6. No person shall construct, maintain or operat a heat treating oven for magnesium unless he has provid approved means for the control of magnessium fires.

- "3.2.12.7. (1) At each grinding, buffing or wire brushing operation on magnesium, not including rough finishings of castings, dust shall be collected by means of suitable hoods or enclosures connected to a liquid precipitation type of separator, such that the dust will be converted to sludge without contact in a dry state with any high speed moving parts.
- " (2) Connecting ducts or suction tubes shall be grounded and as short as possible, with no unnecessary bends.
- "

  (3) Ducts shall be carefully fabricated and assembled, with a smooth interior and with internal lap joints pointing in the direction of air flow, and without unused capped side outlets, pockets or other dead-end spaces which might allow an accumulation of dust.
- " (4) Each machine shall be equipped with its individual dust separating unit, except that with multi-unit machines not more than two dustproducing units may be served by one separator.
- " (5) No more than four portable dustproducing units in a single enclosure or stand may be served by one separator unit.
- " (6) Power supply to machines shall be interlocked with
  - (a) exhaust air flow and
  - (b) liquid pressure level or flow

in such a way that improper functioning of the dust removal and separator system will shut down the machine it serves.

"3.2.12.8. A supply of approved extinguishing powder for magnesium fires shall be kept within easy reach of every operator performing a machining, grinding or other operation producing magnesium dust, chips, or turnings.

# " Storage of Magnesium Articles in Warehouses and Stores

- "3.2.12.9. (1) Magnesium storage in quantity greater than fifty cubic feet shall be separated from storage of other materials that are either combustible or in combustible containers, by aisles equal in width to not less than the height of the piles of magnesium.
- than one thousand cubic feet shall be separated into piles each now larger than one thousand cubic feet with aisles between equal in width to not less than the height of the piles.
- "

  (3) Where storage in quantity greater than one thousand cubic feet is in a building of combustible construction, or the magnesium is packed in combustible crates or cartons, or there is other combustible storage within thirty feet of the magnesium, the storage area shall be protected by automatic sprinklers.

- Handling of Magnesium Fires (Fine Magnesium Scrap)
- "3.2.12.10. (1) Chips, turnings and other fine magnesium scrap shall be collected from the pans or spaces under machines and from other places where they collect at least once each working day, and placed in a covered steel container and removed to a safe location.
- " (2) Magnesium fines shall be kept separate from other combustible materials.
- " (3) Storage in quantity greater than fifty feet of fine magnesium scrap shall be separated from other occupancies by fire resistive construction without window openings or by an open space of at least fifty feet.
- (4) Storage in quantity greater than one thousand cubic feet shall be separated from all buildings other than those used for magnesium scrap recovery operations by a distance of not less than one hundred feet.
- V. By-law Number 5120 and all amendments thereto is hereby repealed.

orall. This By-law becomes effective on the 1st day of January, A.D. 1969.

DONE AND PASSED IN COUNCIL THIS TOTAL OF PROSECUTION A.D. 1968.

City Clerk

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