

# ONTARIO FIRE DEPARTMENT FIRE PROTECTION STANDARD

FIRE EXTINGUISHER PLACEMENTSTANDARD #C-001EFFECTIVE 10-31-05PAGES 15

- **<u>PURPOSE:</u>** To provide guidance information on the portable fire extinguisher requirements consistent with the current City Ordinance adopting the Uniform Fire Code with amendments and the Uniform Fire Code Standards.
- **POLICY:** Pursuant to the requirements of the Uniform Fire Code relating to installation and maintenance of Fire Protection, Life Safety Systems and Appliances, the following information is designated by the Fire Chief as governing the placement of portable fire extinguishers in occupancies other than single-family dwellings.

## **PROCEDURE:**

- A. **CLASSIFICATION OF HAZARDS.** In order to properly place fire extinguishers in occupancies, the authority having jurisdiction must first determine the classification of the hazard in the occupancy. Fire personnel in making this determination should use the following information:
  - 1. **LIGHT (LOW) HAZARD.** Locations where the total amount of Class A combustible materials, including furnishings, decorations and contents, is of minor quantity.
    - a. These may include buildings or rooms occupied as offices, classrooms, churches, assembly halls, etc.
    - b. This classification anticipates that the majority of contents items are either noncombustible or so arraigned that a fire is not likely to spread rapidly.
    - c. Small amounts of Class B flammables used for duplicating machines, art departments, etc., are included provided that they are kept in closed containers and safely stored.
  - 2. **ORDINARY (MODERATE) HAZARD.** Locations where the total amount of Class A combustibles and Class B flammables are present in greater amounts than expected under light (low) hazard occupancies.

These occupancies could consist of offices, classrooms, mercantile shops and allied storage, light manufacturing, research operations, auto showrooms, parking garages, workshop or support service areas of light (low) hazard occupancies and warehouses containing Class I or Class II commodities as defined by NFPA 231, "Standard For Indoor General Storage".

3. **EXTRA (HIGH) HAZARD.** Locations where the total amount of Class A combustibles and Class B flammables are present in storage, production use and/ or finished product over and above those expected and classed as ordinary (moderate) hazards.

These occupancies could consist of woodworking, vehicle repair, aircraft and boat servicing, individual product display showrooms, product convention center displays, storage and manufacturing processes such as painting, dipping, coating, including flammable liquid handling. Also included are warehousing of, or in-process storage of, other than Class I and Class II commodities.

- B. **GENERAL REQUIREMENTS.** Should questions arise relative to the general requirements of portable fire extinguishers, the following information is provided:
  - 1. **IDENTIFICATION.** The classification of extinguishers shall consist of a LETTER, which indicates the class of fire on which an extinguisher has been found to be effective, preceded by a rating NUMERAL (Class A and B only) which indicates the relative extinguishing effectiveness.
    - **Exception:** Extinguishers classified for use on Class C or D hazards shall not be required to have a numeral preceding the classification letter.
  - 2. **MAINTENANCE.** Portable extinguishers shall be maintained in a fully charged and operable condition and kept in their designated places at all times when they are not being used.
  - 3. **LOCATION.** Extinguishers shall be conspicuously located where they will be readily accessible and immediately available in the event of fire. Preferably they shall be located along normal paths of travel, including exits from an area.
    - a. Cabinets housing extinguishers shall not be locked.
      - (1) **Exception No. 1:** Where extinguishers are subject to malicious use, locked cabinets may be used provided they include means of emergency access.

(2)**Exception No. 2:** In the City of Ontario, where a commercial occupancy is unattended or unsupervised during normal hours of operation and the occupancy is of a light (low) hazard type such as coin operated laundromats or car washes and the loss experience from theft and/or vandalism has become excessive, it is the policy of the Ontario Fire Department to require the installation of extinguisher(s) of sufficient size, type and number to be placed in service or equipment areas not generally available to the public so that they may be used by the operators or maintenance personnel in the event of an emergency occurring during service operations. It is necessary for this exception to be reviewed in relation to the specific occupancy by the Fire Marshal's office (FSCD) prior to its implementation. Allowance of this exception requires that there shall be a sign posted in a prominent location having minimum 2" block letters stating:

"IN CASE OF FIRE OR EMERGENCY, CALL: 911"

THIS SIGN SHALL BE 18" WIDE BY 24" HIGH MINIMUM DIMENSION AS IN SAMPLE SHOWN:

Background to be white.	IN CASE OF
	FIRE
Letters are to be red	OR
in color, having a	EMERGENCY
minimum brush stroke	CALL
of 1/2".	911

b. Extinguishers shall not be obstructed or obscured from view.

**Exception:** In large rooms and in certain locations where visual obstruction cannot be completely avoided, means shall be provided to indicate the location.

- 4. **INSTALLATION.** Extinguishers shall be installed on the hangers or in the brackets supplied, mounted in cabinets or set on shelves unless the extinguishers are of the wheeled type.
  - a. Extinguishers installed under conditions where they are subject to dislodgement shall be installed in brackets specifically designed to cope with this problem.
  - b. Extinguishers installed under conditions where they are subject to physical damage shall be protected from impact.

- c. Extinguishers having a gross weight not exceeding 40 lb. shall be installed so that the top of the extinguisher is not more than 5' above the floor. Extinguishers having a gross weight greater than 40 lb. (except wheeled types) shall be so installed that the top of the extinguisher is not more than 3.5' above the floor. In no case shall the clearance between the bottom of the extinguisher and the floor be less than 4".
- d. Operating instructions shall be located on the front of the extinguisher.
- e. Extinguishers mounted in cabinets or wall recesses or set on shelves shall be placed in a manner such that the extinguisher operating instructions face outward.
- C. **SELECTION OF EXTINGUISHERS.** The selection of extinguishers for a given situation shall be determined by the character of the fires anticipated, the construction and occupancy of the individual property, the vehicle or hazard to be protected, ambient temperature conditions, and other factors. (See Table A-2-1)
  - 1. **SELECTION BY HAZARD.** Extinguishers shall be selected for the specific class or classes of hazards to be protected in accordance with the following subdivisions.
    - a. **CLASS A HAZARDS.** Extinguishers shall be selected from the following: water type foam, AFFF, wetting agent, loaded stream; multi- purpose dry chemical; and bromochlorodifluoro-methane (Halon 1211).
    - b. **CLASS B HAZARDS.** Extinguishers shall be selected from the following: bromotrifluoro-methane (Halon 1301), bromochlorodifluoro-methane (Halon 1211), carbon dioxide, dry chemical types, foam and AFFF.
    - c. **CLASS C HAZARDS.** Extinguishers shall be selected from the following: bromotrifluoro-methane (Halon 1301), bromochlorodifluoro-methane (Halon 1211), carbon dioxide, and dry chemical types. **Note**: carbon dioxide extinguishers equipped with metal horns are not considered safe for use on fires in energized electrical equipment and, therefore, are not classified for use on Class C hazards.
  - 2. **SELECTION BY OTHER FACTORS.** Where extinguishers are required but a specific class, size, number or location is not given, the selection shall be subject to the approval of the Fire Chief and the following criteria:
    - a. The gross weight of the extinguisher and the physical ability of the user.

- b. Exposure of the extinguisher to corrosive atmospheres.
- c. Adverse reaction between the extinguishing agent and the material or equipment being protected.
- d. Mobility of wheeled units over the specific terrain and the configuration of access routes available.
- e. The effective range of the extinguishers that may be subject to wind or draft conditions.
- f. The ability and number of personnel available to operate the extinguishers.
- g. The health and safety of the user. To protect the health and safety of the user, the Fire Chief may require installation of remote control extinguishers, extra long extinguisher nozzles, special ventilation, breathing apparatus and other protective measures, including training of personnel.
- 3. **DISTRIBUTION OF EXTINGUISHERS.** The minimum number of extinguishers needed to protect a property is outlined below. Additional extinguishers may be installed if needed to provide more suitable protection given the specific occupancy. Extinguishers having ratings less than specified in the attached Tables 3-2.1 and 3-3.1 may be installed provided they are not used in fulfilling the minimum protective requirements listed.
  - a. Fire extinguishers shall be provided for the protection of both the building structure, if combustible, and the occupancy hazards contained therein.
  - b. Required building protection shall be provided by fire extinguishers suitable for Class A fires.
  - c. Occupancy hazard protection shall be provided by fire extinguishers suitable for such Class A, B, C, or D fire potentials as may be present.
  - d. Extinguishers provided for building protection may be considered also for the protection of occupancies having a Class A fire potential.
  - e. Combustible buildings having an occupancy hazard subject to Class B and/or Class C fires shall have a standard complement of Class A fire extinguishers for building protection, plus additional Class B and/or C extinguishers. Where fire extinguishers have more than one letter classification (such as 2-A:20-B:C), they may be considered to satisfy the requirements of each letter class.

- f. Rooms or areas shall be classified generally as light (low) hazard, ordinary (moderate) hazard, or extra (high) hazard. Limited areas of greater or lesser hazard shall be protected as required.
- g. The type, size, number, and placement for special storage occupancies is covered by NFPA 231, "Indoor General Storage", NFPA 231C, "Rack Storage of Materials", and NFPA 231D, "Storage of Rubber Tires".

# 4. FIRE EXTINGUISHER SIZE AND PLACEMENT FOR CLASS A HAZARDS.

- a. Minimal sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of Table 3-2.1 except as modified by paragraph 4c below. Extinguishers shall be so located so that the maximum travel distances shall not exceed those specified in Table 3-2.1, except as modified by paragraph 4c below.
  - (1) Certain smaller extinguishers which are charged with multi-purpose dry chemical or Halon 1211 are rated on Class B and Class C fires, but have insufficient effectiveness to earn the minimum 1-A rating even though they have value in extinguishing smaller Class A fires. They shall not be used to meet the requirements of paragraph C4a above.
- b. Up to one-half the compliment of extinguishers as specified in Table 3-2.1 may be replaced by uniformly spaced 1.5" hose stations for use by the occupants of the building.
  - (1) When hose stations are so provided they shall conform to NFPA 14, "Installation of Standpipe and Hose Systems".
  - (2) The location of hose stations and the placement of fire extinguishers shall be in such a manner that the hose stations do not replace more than every other extinguisher.
- c. Where the floor area of a building is less than that specified in Table 3-2.1, at least one extinguisher of the minimum size recommended shall be provided.
- d. The protection requirements may be fulfilled with extinguishers of higher rating provided the travel distance to such larger extinguisher shall not exceed 75'.
- e. For Class A extinguishers rated under the rating classification system used prior to 1955, their equivalency shall be in accordance with Table 3-2.5.

## 5. FIRE EXTINGUISHER SIZE AND PLACEMENT FOR CLASS B FIRES OTHER THAN FOR FIRES IN FLAMMABLE LIQUIDS OF APPRECIABLE DEPTH.

- a. Minimal sizes of fire extinguishers for the listed grades of hazard shall be provided on the basis of Table 3-3.1.
  - (1) Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in the table used.
  - (2) Extinguishers of lesser rating, desired for small specific hazards within the general hazard area, may be used, but shall not be considered as fulfilling any part of the requirements of Table 3-3.1.
- b. Two or more extinguishers of lower rating shall not be used to fulfill the protection requirements of Table 3-3.1.
  - (1) **Exception No. 1:** Up to three foam extinguishers of at least 2.5 gal capacity may be used to fulfill light (low) hazard requirements.
  - (2) **Exception No. 2:** Up to three AFFF extinguishers of at least 2.6 gal capacity may be used to fulfill extra (high) hazard requirements.
- c. The protection requirements may be fulfilled with extinguishers of higher ratings provided the travel distance to such larger extinguishers shall not exceed 50'.
- d. For extinguishers rated prior to 1955, see Table 3-4.5 for equivalency.
- 6. **FIRE EXTINGUISHER SIZE AND PLACEMENT FOR CLASS B FIRES IN FLAMMABLE LIQUIDS OF APPRECIABLE DEPTH.** For dip tanks containing flammable or combustible liquids exceeding 150 gal liquid capacity or having a liquid surface area exceeding 4 sq. ft., see NFPA 34, "Dip Tanks", for the requirements of automatic extinguishing facilities.
  - a. Portable fire extinguishers shall not be installed as the sole protection for flammable liquid hazards of appreciable depth (greater than 1/4") where the surface area exceeds 10 sq. ft.
    - **Exception:** Where personnel who are trained in extinguishing fires in the protected hazards, or a counterpart are available on the premises, the maximum surface area shall not exceed 20 sq. ft.

- b. For flammable liquid hazards of appreciable depth such as dip or quench tanks, a Class B fire extinguisher shall be provided on the basis of at least two numerical units of Class B extinguishing potential per square feet of flammable liquid surface of the largest tank hazard within the area.
  - (1) **Exception No. 1:** Where approved automatic fire protection devices or systems have been installed for a flammable liquid hazard, additional portable Class B fire extinguishers may be waived.
    - (a) Where so waived, Class B extinguishers shall be provided as covered in paragraph 5a above, to protect areas in the vicinity of such protected hazards.
  - (2) **Exception No. 2:** Foam or AFFF type extinguishers may be provided on the basis of 1-B of protection per square foot of hazard.
- c. Two or more extinguishers of lower ratings shall not be used in lieu of the extinguishers required for the largest tank.

**Exception:** Up to three foam or AFFF extinguishers of 2.5 gal capacity may be used to fulfill these requirements.

- d. Travel distances for portable extinguishers shall not exceed 50'.
- e. Scattered or widely separated hazards shall be individually protected.

An extinguisher in the proximity of a hazard shall be carefully located so as to be accessible in the presence of a fire without undue danger to the operator.

f. For Class B extinguishers rated under the rating classification system used prior to 1955, see Table 3-4.5 for equivalency.

# 7. FIRE EXTINGUISHER SIZE AND PLACEMENT FOR CLASS C HAZARDS.

a. Extinguishers with Class C ratings shall be required where energized electrical equipment may be encountered which would require a nonconducting extinguishing medium. This will include fire either directly involving or surrounding electrical equipment.

Since the fire itself is a Class A or Class B hazard, the extinguishers are sized and located on the basis of the anticipated Class A or B hazard.

- b. For extinguishers classified under the system used prior to 1955, the pre-1955 classifications of "C-2", "C-1", and "C" shall be the equivalent to the current "C" designation.
  - (1) **Exception No. 1:** Carbon dioxide extinguishers with metallic horns shall not carry any "C" classification.
  - (2) **Exception No. 2:** Vaporizing liquid extinguishers (carbontetrachloride or chlorobromomethane base) are not recognized in this standard.

## 8. SIZE AND PLACEMENT FOR CLASS D HAZARDS.

- a. Extinguishers or extinguishing agents with Class D ratings shall be provided for fires involving combustible metals.
- b. Extinguishing equipment shall be located not more than 75' from the Class D hazard.
- c. Size determination shall be on the basis of the specific combustible metal, its physical particle size, area to be covered and recommendations by the extinguisher manufacturer on data from control tests conducted.
- **II**. The above information and the accompanying Charts, Tables and Sample forms have been taken from the 1988 Uniform Fire Code Standards and are adopted by ordinance of the Ontario City Council along with the 1988 Uniform Fire Code and amendments. They are provided for your reference and guidance while conducting inspections or answering questions from the community.

## III. SUPPLEMENTAL INFORMATION

## A. SERVICING OF EXTINGUISHERS - CHEVRON OIL COMPANY

Those Chevron dealers and Chevron Oil Company facilities that operate with parent company provided and serviced extinguishers may not have the required State Fire Marshal's Tag attached. This company (and any other company that) uses their own servicing staff who are registered by the State Fire Marshal's Office and are not for hire for a fee, may use a tag of their own design provided it contains the required information: employee's name, license number, and the service performed.

# B. CITY OF ONTARIO FIRE EXTINGUISHER INFORMATION FORM LETTER.

Attached at the end of this Standard Operating Procedure is a sample form letter, which is available for your use in notifying the responsible party for B-2 occupancies of the extinguisher requirements they must meet.

- Note: References to specific Code sections in this Standard Operating Procedure refer to the 1988 Edition of the Uniform Fire Code and accompanying standards.
- NOTE: This INFORMATION DOCUMENT supersedes Standard Operating Procedure No. 1, SECTION IV, dated January 25, 1980; Memorandum No. 9-81MM; Memorandum No. 5-77MM; Memorandum No. 43-87MM; and Memorandum No. 27-89MM. These prior documents may be removed from the files and discarded.

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Table 3-2.1

	Light (Low) Hazard Occupancy	Ordinary (Moderaue) Hazard Occupancy	Estre (High) Hazard Occupancy
Minimum rated	2.8		antan Ardena) Artar gad
extinguisher	2-A	2-A	4.4.
Maximum floor area per unit of A	3.000 sq ft	1.500 mg ft	1,000 mg R
Maximum floor area for extinguisher	11.250 mg ft**	11.250 aq ft**	11,250 m ft**
Maximum travel distance to			n an
extinguisher	75 ft	75 R	75 R

\*Two 214 gal (9.46 L) water type extinguishers can be used to fulfill the requirements of one 4-A tated extinguisher. \*See Appendia E-3-3.

NOTE: 1 ft = 0.305 m 1 ag ft = 0.0929 m<sup>4</sup>

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		Table 3-2.5		
All Water I Stream		Pre-1955 Rating	Equivalency	,
1 16 to 1 2 14 s	le	A-3 A-1	1-A 8-A	
	1 - C C C C - C - C - C - C - C - C - C	A-1 A-1	3-A 4-A	
17 p 33 p		Â	10-A 20-A	-

NOTE: 1 gal = 3.785 L.

#### Table 3-3.1

	Type of Hazard		Estinguisher Rating	Masimum Travel Distance to Estinguishers (Ft)	(m)
ia s •	Light (low)	<ul> <li>AKC</li> <li>Collars</li> <li>Collars</li> <li>Collars</li> </ul>	5B 10B	50 50	9.15
	Ordinary (modera	te)	10B 20B	50 50	9.15 15.25
	Extra (high)		403		9.15

NOTE 1: The specified ratings do not imply that firm of the magnitudes indicated by these ratings will occur, but rather us give the operators more time and agent to handle difficult spill firm that may occur. NOTE 2: For fires involving water soluble flammable liquids see 2-3.6.

NOTE S: For specific hazard applications are Section 2-3.

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	Table 3-4.5	
Type and Capacity	Pre-1955	Equivalency
Posm.	는 가 가 있는 것이 있다. 한 것 같은 말했는 것 같은 것 같은 것 같은 것	
214 gal	<b>P</b> 1	1-1
5 gal 17 gal	<b>P</b> -1	5-B 10-B
33 ml	sale e parente	20-3
Carbon Dioxide	e i sud la Typeter	and a second
Under 7 lb	B-2	1-8
7 16	1.1	168.00
10 to 12 /b	8-1	1-3
15 to 20 lb	B-1	1-3
25 to 26 lb 50 lb	nge de la de la <b>Del</b> prese	5-B
75 lb	<b>B-1</b> B-1	10-3
100 15		10-B 10-B
2012 Contract West and	글 다 말 한 국가 문제	the state of the part
Dry Chemical 4 to 614 lb		1.034.025.307
74 16	B-2 B-2	1-B.
10 to 15 lb	B-1	5-B 5-B
to 1b	and the second for the second second	10-8
O Iba a second a second a	8-1	20-8
75 lb and up	그 몸이 가지만 🖡 한글 문헌	40-3

1 b - 0.654 bg

NOTE 1: 1 gal = 3.76 L NOTE 2: Vaporting liqu

#### Tab / Extin

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Extinguishing Agent	Method of Operation	Capacity	Horisontal Range of Stream	Apprezi- more Time of Discharge	Protection Required Below 40°F 41°D	UL or ULC Classifica-
Water/Antifreene	Stored Pressure or Car-					
•	tridge	24 gal	30-40 fr	1 min	Ta	1-A
	Pump	214 gal	30-40 ft	) min	Yes	1.4
<ul> <li>A 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10</li></ul>	Pump in a strange in the second	4 gal	30 40 ft	2 min	Ye	3-A -
Manage (Marinelland America)	Pump	5 gal	30-40 ft	2-3 min	Ye	4-A
Water (Wetting Agent)	Stored Pressure	1 14 gal	20 ft	30 mc	Ya	1.4
	Carbon Dioxide Cylinder	25 gal (wheeled)	35 K	114 min	Te	10-A
	Carbon Dioxide Cylinder	45 gal (wheeled)	35 R	2 min	Yes	30-A
	Carbon Dioxide Cylinder	60 gal (wheeled)	35 A	214 min	Ye	40-A
Water (Soda Acid)	Chemically generated ea-	(				
14 million (14 million)	Chemically generated en-	214 gal	30-40 ft	1 min	Yes	1-A
	pellan	17 gal (whereied)	50 A	3 min	Ym	10-A
	* Chemically generated en-	(				
	, pellani	33 gal (wheeled)	50 k	3 min	Ym	20-A
onded Stream	Stored Pressure or Cartridge	214 gal	\$0-40 ft	1 min	No	2 to 3-A:1-B
	Carbon Dioaide Cylinder	33 gal	50 4	3 min	No	2 10 3·A:1·B
		(wheeled)	en st <u>iere</u> set	*	~	50·A
oem i i i i i i i i i i i i i i i i i i i	Chemically generated ea-					· · ·
	pellant	214 gal	30-40 ft	114 min	Te .	2-A:4 to 6-B
	Chemically generated en-				-	
	pellant	17 gal	50 ft	3 min	Ya	10-A:10 to 12-B
		(wheeled)				
	Chemically generated ea-	1.1.2000.024				
	pellant	33 gal	50 A	3 min	Ya	20-A:20 to 40
		(wheeled)				
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	and the state of the second	(Continued)	S. 1794			•
	Footno	tes appear on page	67.			
		2			·. · · _	

### Table A-2-1 Characteristics of Extinguishers (Continue)

	Estinguishing Agent	Method of Operation	Capacity	Horisontal Range of Stream	Approxi- mate Time of Discharge	Protection Required Below 0°7 (1°0)	UL or ULC Classifics- tions*
5 m	AFFF Carbon Diozide	Stored Pressure Nurogen Cylinder Self Expelling	214 gal 33 gal 214 to 5 lb	20-25 ft 30 ft 3-8 ft	H sec 1 min 8 to	Ya Ta	3-A:20 to 40-B 20-A:160-B
		2.11. 🐽 🖂 网络白色的女子	10 to 15 16	3-8 ft	50 mec 8 to	No	1 to 5-B:C 2 to 10-B:C
	and the second sec	र स्थिति स्थि स्थिति स्थिति	20 Ib	3-8 ft	30 arc 10 to	No	10-B:C
	Dry Chemical (Sedium		\$0 to 100 Hb (wheeled)	3-10 ft	30 sec 10 to 30 sec	No	10 to 20-B:C
	Bicarbonate)	Stored Premure	1 to 24 16	5-8 ft	8 10	No	2 to 10-B:C
		Cantridge or Stored Pressure	2% to 5 lb	5-20 ft	12 arc	No	\$ to 20-B:C
ಿಗಿತ್ತು		Cartridge or Stored Pressure	6 to 30 lb	5-20 ft	20 arc	No	10 to 160-B:C
		Nitrogen Cylinder or Stored Pressure	75 to 550 lb	15-45 ft	25 arc 20 to	No	40 to \$20-8:C
	Dry Chemical (Potamium Bicarbonate)	Cartridge or Stored	(wheeled)	e alte	105 sec		
	Bicarbonate)	Premure La desarrag	2 to 5 lb	5-12 ft	8 to	No	\$ to 20-B:C
		Cartridge or Stored Pressure	· •₩ w 10 lb	6-20 ft	8 to 20 mc	No	10 to 80-8:C
	n de la dela del constante del constante del constante del constante del constante del constante del constante Sector del constante del cons						•
				1997 - <b>1</b> 997 - 1997 -			
· · ·		n 2017 - Alfred Anna Anna Anna Anna Anna Anna Anna Ann					
	· 2017						•• •••
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~ .	•		Cartridge or Stored Pressure	16 to 30 lb	10-20 ft	8 10 <sup>3</sup> - 10	No. No.	40 to 120-8:C
	Dry Chemical		Cartridge Nitrogen Cylinder or Stored Pressure	48 lb -125 to 315 lb (wheeled)	20 ft 15-45 ft	25 arc 30 arc 30 to 89 arc	No No	120-B:C 80 to 640-B:C
	Chloride)	C. C. S. C. S.	Stored Pressure	2 10 5 lb	5-8 ft	8 to 10 arc	No	\$ to 10-8:C
	20.2	가 가 가 있다. 13 년 - 1	Stored Pressure	5 to 9 lb	8-12 A	10 to	No	30 to 40-8:C
		Cartridge or	Stored Pressure	914 to 20 Ib	10-15 ft	15 arc 15 to 20 arc	No	40 to 60-B:C
			Stored Pressure	1914 to 30 ib	5-20 ft	10 10	No	60 to 80-B:C
			Stored Premure	125 to 200 lb	15-65 R	25 arc 30 to 40 arc	No	160-B:C

## (Continued)

Footnotes appear on page 67.

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Estinguishing Apres	Method of Operation	Capacity	Horizontal Range of Stream	Approxi- mate Time of Discharge	Promition Required Salary 4977 HTQ	UL er ULC Classifics- tiour
Dry Chemical (Ammonium		and the second				
Phosphate)	Stored Pressure	1 to 5 lb	5-12 A	8 10	No 👘	1 to 2-A† an
	Stored Premure or	214 to 814 1b	\$-12 ft	10 sec 8 to	No	2 to 10-B:C 1 to 4-A and
	Cartridge			15 sec		10 to 40-B:C
	Stored Pressure or	9 to 17 lb	5-20 ft	10 10	No	2 to 20-A am
<ul> <li></li></ul>	Cartridge Stored Pressure or	17 to 50 lb	5-20 ft	25 arc		10 to 80-8:C
• ex	Cartridge	17 10 30 15	5-20 R	10 to 25 erc	No	5 to 20-A an 30 to 120-B:
	Cartridge	45 lb	20 ft	25 80	No	20-A:80-B:
	Nitrogen Cylinder or	110 to 315 Ib	15-45 ft	30 to	a a 1776 - 1	20 to 40 A at
	Stored Pressure	(wheeled)		60 mm		60 to 320-8:
Dry Chemical (Feam Com-	Cartridge or Stored	Sec. S. S. S.				
patible)	Presure	4% to 9 lb	5-20 R	8 to	No	10 to 20-B:0
	Cantridge or Stored			10 eec		
	Premute	9 to 27 lb	5-20 ft	10 10	No	
			3-20 H	25 mc		30 to 30-8:0
	Cartridge or Stored	States and the second second		10 000		
	Premure	18 to 30 lb	5-20 ft	10 10	No	40 to 60-B:
				25 850		
	Nitrogen Cylinder or	150 to 350 lb	15-45 ft	20 10	No	80 to 240-B:
	Stored Premure	(wheeled)		150 mc	1999 - 1959 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	
Dry Chemical (Potamium	Cartridge or Stored					
Chloride)	Premure	214 10 5 lb	5-12 ft	8 10	No.	10 to 20-B:
	• · · · · · · · · · · · · · · · · · · ·			10 mc		
	Cartridge or Stored Premure	914 to 20 lb				
	Fremure	3 M 10 20 10	5-20 ft	1.00	No	40 to 60-B:
	Cartridge or Stored			25 mc		
	Premure	1914 to 30 lb	8-20 B	10 10	No	60 to 80-3.
				25 mc	~	
	Stored Pressure	125 to 200 lb (wheeled)	15-45 R	50 to 40 arc 13 to	No	160-B:C
Dry Chrmical (Penantum Bicarbonase Usea based)	Stored Pressure	5 to 11 35 9 to 25 15	11-22 k	18 erc	Ne	40 to 80-8-C
				33 mm		00 10 100-B.C
	•	175 B	70 k	62 mc	No	440-B:C
	• 1	(wheeled)			· · ·	
Halon 1301 (Bromotrifluoro- methane)				8 10	· ·	
Halon 1211 (Bromochlorodi-	Stored Pressure	214 16	4-6 ft	10 mc	No	3-B:C
fluoromethane)	Stored Pressure	1 B 1 B 1 B 1		8 10		
() () () () () () () () () () () () () (	SIGTED FREIDITE	1 <b>1 1</b>	6-10 ft	10 mc	No	1-B:C
		2 1	6-10 6	10 mc	No	1-B:C
24 - 1 - K K K.		and the second				1.9:0
a fel de la companya	•	214 H	6-10 k	10 arc	No	S B:C
der in der			1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	8 10		
	• •	\$14 to 9 lb 13 to 22 lb	9-15 ft 14-16 ft	15 mc	No	1-A:10-B:C
				10		1 to 4-A and
	•					
		150 16	20-30 k	18 sec 30 se	No	20 to 80-8:C 30-A:160-8:C

#### Table A-2-1 Characteristics of Extinguishers (Continued)

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#### s to Table A-2-1

Notes to Table A.2-1 \*UL and ULC ratings checked as of December 9, 1985. Readers concerned with subsquent ratings should review the per "supplements" insued by these laboratories: Underwriters Laboratories Inc., 533 Pfingues Road, Northbrook, IL 60062 or Ut oratories of Canada, 7 Crouse Road, Searborough, Ont., Canada MIR SA9. \*\*Carbon domaide extinguishers with metallic horns do not carry a "C" classification. \$Some small extinguishers containing ammonium phorphate base dry chemical do not carry an "A" classification. NOTE: Vaporizing liquid extinguishers (carbon tetrachloride or chlorobromomethane base) are not recognised in this Ratings of 4-8, 6-8, 8-6, 12-8 and 16-8 were eliminated June 1, 1969. See A-1-4.2,

mandaid.

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	CITY OF ONTARIO FIRE DEPARTMENT
	425 EAST B STREET . ONTARIO. CALIFORNIA 91764 . 714/986-4579
odt to	D. R. LEE, FIRE CHIEF
	FIRE EXTINGUISHER INFORMATION
conplianc	equired to provide the following fire extinguisher(s) in e with the Uniform Fire Code Section 10,301a.
Number of	Extinguishers
Type of E	xtinguishers and an and an and a constant
Telephone yellow pa purchased such as d inspected licensed The extin location. placed in Departmen owner. T hung no h extinguis	from a licensed fire protection equipment company. numbers for many of these companies can be found in the ges under "Fire Extinguishers". Fire extinguishers from other than licensed fire extinguisher companies. epartment, discount, or hardware stores, must be and tagged with a State Fire Marshal's tag by a Fire Equipment Technician. guishers must be hung in a conspicuous and accessible The extinguishers required by any business should be a location that has been decided upon by the Fire t representative working with the business manager or he extinguishers are to be hung on approved hangers and igher than five feet from the floor to the top of the her and not less than four inches from the floor. ve any questions regarding these requirements, please
contact t Departmen	ve any questions regarding these requirements, please he Fire Safety Control Division of the Ontario Fire t between the hours of 8:00 a.m. to 5:00 p.m., Monday riday, at (714) 986-4579, Extension 813.
	EXAMPLE OF STATE FIRE MARSHAL'S TAG
	= 19 12 18 10 30 31 33 33 34 32 35 33 54 33 30 31 31 31 31 31 31 31 31 31 31 31 31 31
5	Nome Est.
	JAN FEB MAR APH MAY JUN JUL AUG SEP OCT NOV DEC