

Optional Information

Name of School:

Date of Inspection:

Vocational Program/Course/Room:

Signature of Inspector:

Portable Fire Extinguishers Self Inspection Checklist

Guidelines:

This checklist covers the "Uniform Fire Code" regulations issued by the New Jersey Department of Community Affairs (N.J.A.C. 5:70). The Uniform Fire Code has adopted the model code of the Building Officials and Code Administrators International, Inc. known as the "BOCA National Fire Prevention Code" by reference as well as the National Fire Protection Association (NFPA) Standard for Portable Fire Extinguishers (Standard 10). This checklist also covers regulations from the U.S. Department of Labor - OSHA General Industry standard 29 CFR 1910.157. There may be additional requirements under county and/or municipal codes. The local fire official should be consulted for clarification regarding interpretation of these regulations.

This checklist applies to the placement, use, maintenance and testing of portable fire extinguishers. Definitions of terms are provided at the end of the checklist to help you understand some of the questions.

The questions most likely not the responsibility of the individual teacher are marked with an asterisk (*). Any question marked with the symbol (⊗) indicates a history of previous violations in vocational schools.

This checklist does not address detailed regulations covering the methods used for hydrostatic testing of fire extinguishers. Please consult 29 CFR 1910.157 for additional information.

General Requirements

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| 1.*⊗ | Are portable fire extinguishers mounted, located and identified so that they are readily visible and accessible? [29 CFR 1910.157(c)(1); N.J.A.C. 5:70-3.2{BOCA F-519.1}; and N.J.A.C. 5:70-3.2{NFPA 10}] | Y | N | N/A | DK |
| 2.* | Are portable fire extinguishers approved? [29 CFR 1910.157(c)(2);N.J.A.C. 5:70-3.2{BOCA F-519.1}; and N.J.A.C. 5:70-3.2{NFPA 10}] | Y | N | N/A | DK |
| 3.* | Are extinguisher operating instructions located on the front of the extinguisher and clearly visible? [N.J.A.C. 5:70-3.2{NFPA 10}] | Y | N | N/A | DK |

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| 4.* | Do portable fire extinguishers bear the label of an approved agency? [N.J.A.C. 5:70-3.2{BOCA F-519.1} and N.J.A.C. 5:70-3.2{NFPA 10}] | Y N N/A DK |
| 5.* | Are fire extinguishers labeled, tagged, stenciled or otherwise marked with the following information: (a) the contents product name as it appears on the manufacturer’s Material Safety Data Sheet; (b) the listing of the hazardous material identification in accordance with the hazardous materials identification systems (HMIS) developed by the National Paint & Coating Association; (c) the list of any hazardous materials that are in excess of 1.0 percent of the contents; (d) the list of each chemical in excess of 5.0 percent of the contents; (e) information as to what is hazardous about the agent in accordance with the Material Safety Data Sheet; and (f) the manufacturer’s or service agency’s name, mailing address, and phone number? [N.J.A.C. 5:70-3.2{NFPA 10}] | Y N N/A DK |
| 6.* | Are portable fire extinguishers fully charged and operable and kept in their designated places at all times? [29 CFR 1910.157(c)(4) and N.J.A.C. 5:70-3.2{NFPA 10}] | Y N N/A DK |
| 7.* | Have the following portable fire extinguishers been removed from service? [29 CFR 1910.157(c)(3 & 5); N.J.A.C. 5:70-3.2{BOCA F-519.5}; and N.J.A.C. 5:70-3.2{NFPA 10}] | Y N N/A DK |
| | <ul style="list-style-type: none"> a) Soda acid; b) Chemical foam (excluding film-forming agents); c) Vaporizing liquid (e.g., carbon tetrachloride and bromochloromethane); d) Cartridge-operated water; e) Cartridge-operated loaded stream; and, f) Copper or brass shell (excluding pump tanks) joined by soft solder or rivets. g) Carbon dioxide extinguishers with metal horns; h) Solid charge–type AFFF (aqueous film-forming foam extinguishers, with paper cartridge); i) Pressurized water fire extinguishers manufactured prior to 1971; j) Any extinguisher that needs to be inverted to operate; k) Any stored pressure extinguisher manufactured prior to 1955; l) Any extinguishers with 4B, 6B, 8B, 12B, and 16B fire | |

- ratings; and,
- m) Stored-pressure water extinguishers with fiberglass shells (pre-1976).

8. Have you checked to see if each fire extinguisher:
- | | |
|--|------------|
| a) Is located in its designated place? | Y N N/A DK |
| b) Has obstructions to access or visibility, and if so then obstructions have been eliminated? | Y N N/A DK |
| c) Its lid is sealed? | Y N N/A DK |
| d) Is full by hefting or weighing it? | Y N N/A DK |
| e) Has obvious physical damage to its container? | |
- 9.* Are extinguishers that have been discharged immediately removed and temporarily replaced with a standby or spare unit of the same type and capacity as the discharged unit? [N.J.A.C. 5:70-3.2{BOCA F-519.4}]
- Y N N/A DK
- 10.* If fire extinguishers are enclosed in cabinets, is access to the cabinet unobstructed and is the cabinet clearly visible? [29 CFR 1910.157(c)(1); N.J.A.C. 5:70-3.2{BOCA F-505.1}; and N.J.A.C. 5:70-3.2{NFPA 10}]
- Y N N/A DK
- 11.* If fire extinguishers are enclosed in cabinets, are they identified in an approved manner by a permanently attached sign with letters not less than 2 inches high in a color that contrasts with the background indicating the equipment inside? [N.J.A.C. 5:70-3.2{BOCA F-505.2}]
- Y N N/A DK
- Note: Doors not large enough to accommodate a written sign could be marked with a permanently attached pictogram of the equipment. Also doors that have either an approved visual identification clear glass panel or a complete glass door panel are not required to be marked.
- 12.* If fire extinguishers are enclosed in cabinets, are cabinets unlocked? [N.J.A.C. 5:70-3.2{BOCA F-505.3} and N.J.A.C. 5:70-3.2{NFPA 10}]
- Y N N/A DK

Note: Cabinets may be locked if they have visual identification

panels of glass or other approved transparent material that are easily broken and allow access. Cabinets may also be locked if they have approved locking arrangements.

- 13.* If fire extinguishers are mounted in cabinets or wall recesses, do fire extinguisher operating instructions face outward? [N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK
- 14.* Are extinguishers installed on the hangers or on the supplied brackets, mounted in cabinets, or set on shelves unless the extinguishers are of the wheeled type? [N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK
- 15.* Are extinguishers which are installed under conditions where they are subject to mechanical injury or physical damage, and exposed to abnormal temperatures or corrosive atmospheres, protected from impact? [N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

Training and Education

- 16.*⊕ When individuals are expected to use fire extinguishers, have they been trained in the general principles of fire extinguisher use and the hazards involved with incipient stage fire-fighting? [29 CFR 1910.157(g)(1)] Y N N/A DK
- 17.* Is this training given at the time of initial assignment and annually thereafter? [29 CFR 1910.157(g)(2)] Y N N/A DK

Selection and Distribution

- 18.* Is at least one fire extinguisher available in each laboratory, shop or other vocational room and one fire extinguisher available for each 2,500 square feet of floor area? [N.J.A.C. 5:70-3.2(a)5xviii{F-519.2.1}] Y N N/A DK
- 19.* Using Table I, are portable fire extinguishers selected and distributed based on the classes (see class definitions at end of checklist) of anticipated fires and on the size and degree of hazard which would affect their use? [29 CFR 1910.157(d)(1) and N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

Fire Extinguisher Hazard Classes and Distances

First Hazard Class	Maximum Permitted Distance to Portable Fire Extinguisher
A- ordinary combustibles materials, such as wood, cloth, paper, rubber, and many plastics.	75 feet ¹
B- flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable gases.	50 feet ²
C- involve energized electrical equipment.	50-75 feet ³
D- combustible metals, such as magnesium, titanium, zirconium, sodium, lithium, and potassium. ⁵	75 feet ⁴
K- cooking appliances involving combustible cooking media (vegetable or animal oils and fats).	30 feet

¹Uniformly spaced standpipe systems or hose stations connected to a sprinkler system installed for emergency use may be used instead of Class A portable fire extinguishers.

²Depending on size of extinguisher and size of fire hazard, a maximum 30 foot travel distance may be required.

³Use existing Class A or Class B Hazards to determine the required pattern.

⁴Required where combustible metal powders, flakes, shavings or similarly sized products are generated at least once every two weeks.

⁵ Class D extinguishing agents shall be manually inspected daily or weekly when conditions exist indicating the need for more frequent inspections. [NFPA 10 (7.2.1.3)]

Note: The distribution requirements may not apply if there is an emergency action plan which designates certain individuals to be the only individuals authorized to use the available portable fire extinguishers, and which requires others in the fire area to immediately evacuate the affected area upon the sounding of the fire alarm.

Inspection, Maintenance and Testing

Note: Persons assigned to perform actual maintenance and recharging of extinguishers must be certified; however, persons performing the initial/periodic inspections shall not be required to be certified. [NFPA 10 (7.1.2.1 and 7.1.2.3)]

- 20.*⊕ Are portable fire extinguishers inspected at a minimum of 30-day intervals to ensure that a fire extinguisher is available and will operate? [29 CFR 1910.157(e)(2) and N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

Note: This is a simple “quick check” inspection that is intended to verify that the fire extinguisher is fully charged and operable.

- 21.* Are records maintained of all fire extinguishers inspected monthly, including those found to require corrective action? [N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

Note: The records must include the date of the inspection and the initials of the person performing the inspection. The records may be kept on a tag or label attached to the fire extinguisher, on an inspection checklist on file, or in an electronic system (e.g., bar coding) that provides a permanent record. The corrective actions must be performed in accordance with the manufacturer’s service manual. Disposable halon agent fire extinguisher models requiring replacement are not to be depressurized on site, but instead returned to the manufacturer or service agency for proper disposal and reclaiming of the remainder of the extinguishing agent. [NFPA 10 (I.1.2)]

- 22.*⊕ Are portable fire extinguishers subjected to at least an annual maintenance check by a trained individual? [29 CFR 1910.157(e)(3) and N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

Note: This is a more thorough examination intended to give the maximum assurance that the fire extinguisher will operate effectively and safely.

23.* Are records of the annual maintenance check kept and retained for at least a year (i.e., the prior 12 months)? [29 CFR 1910.157(e)(3) {NFPA 10}] Y N N/A DK

24.* Are stored pressure dry chemical extinguishers that require a 12 year hydrostatic test emptied and subjected to applicable maintenance procedures every 6 years? [29 CFR 1910.157(e)(4) and N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

Note: Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement.

25.* When portable fire extinguishers are removed for service, are standby or spare units temporarily installed of the same type and capacity? [29 CFR 1910.157(e)(5)] Y N N/A DK

26.* Does each extinguisher have a tag or label securely attached that indicates the month and year the maintenance and recharging was performed, and identifies the person performing the service, and identifies the name of agency performing this work? [N.J.A.C. 5:70-3.2{NFPA 10}] Y N N/A DK

27. Were fire extinguishers manually inspected when initially placed in service? [NFPA 10 (7.2.1.1)] Y N N/A DK

28. Are fire extinguishers and Class D extinguishing agents being inspected manually or by means of an electronic monitoring device/system at least once per calendar month but not exceeding intervals of at least once every 31 days? [NFPA 10 (7.2.1.2.0-1)] Y N N/A DK

29. Inspection Procedures.
Does the periodic inspection or electronic monitoring of fire extinguishers include, at a minimum, a check of at least these six criteria: Y N N/A DK
a) Location in designated place
b) No obstruction to access or visibility

- c) Pressure gauge reading or indicator in the operable range or position
- d) Fullness determined by weighing or hefting
- e) Condition of tires, wheels, carriage, hose, and nozzle (for wheeled extinguishers)
- f) Indicator for non-rechargeable extinguishers using push-to-test pressure indicators [NFPA 10 (7.2.2)]

30. For manual inspection records, are records being kept on a tag or label attached to the fire extinguisher, on an inspection checklist maintained on file, or be an electronic method? [NFPA 10 (7.2.4.1)] Y N N/A DK

31. For electronic inspection records, do records show at least the last 12 monthly inspections have been performed? [NFPA 10 (7.2.4.1.2)] Y N N/A DK

Maintenance

32. Do maintenance procedures involve a thorough examination of the basic elements of the fire extinguisher, include the following four criteria: Y N N/A DK

- a) Mechanical parts of all fire extinguishers
- b) Extinguishing agent
- c) Expelling means
- d) Physical condition

Distribution

33. Has the minimum number and rating of fire extinguishers for Class A fire protection been established using the criteria in NFPA 10 Table 6.2.1.1 [NFPA 10 (E.3.1)] Y N N/A DK

Fire Extinguisher Size and Placement for Class A hazards

Criteria	Light Hazard Occupancy	Ordinary Hazard	Extra Hazard Occupancy
Min. rated single extinguisher	2-A	2-A	4-A
Max. floor area per unit of A	3000 ft ²	1500 ft ²	1000 ft ²
Max. floor area for extinguisher	11,250 ft ²	11,250 ft ²	11,250 ft ²
Max. travel distance to extinguisher	75 ft	75 ft	75 ft

Note: For SI units, 1 ft = 0.305 m; 1 ft² = 0.0929 m²

Note: Travel distance is the actual distance the user of the fire extinguisher will need to walk. Travel distance is affected by partitions, location of doorways, aisles, piles of stored materials, machinery, etc. [NFPA 10 (E.1.4.)]

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34. For rooms judged as a Class B room hazard, are fire extinguishers placed at regular intervals so the maximum walking distance from any point to the nearest fire extinguisher does not exceed the travel distance specified in NFPA 10 Table 6.3.1.1? [NFPA 10 (E.4.6)]

Y N N/A DK

Fire Extinguisher Size and Placement for Class B Hazards

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers	
		ft	m
Light	5-B	30	9.14
	10-B	50	15.25
Ordinary	10-B	30	9.14
	20-B	50	15.25
Extra	40-B	30	9.14
	80-B	50	15.25

Note: Specified ratings do not imply fires of magnitudes indicated by these ratings will occur. Instead, they are provided to give operators more time and agents to handle difficult spill fires with the potential to occur.

35. Are Class K fire extinguishers distributed and available for cooking grease fires? [NFPA 10 (E.7)]

Y N N/A DK

Hydrostatic Testing

36.* Are extinguishers hydrostatically tested at the intervals listed in Table II? [29 CFR 1910.157(f)(2), N.J.A.C. 5:70 3.2{NFPA 10}]

Y N N/A DK

Extinguisher Type and Test Intervals

Type of extinguishers	Test Interval (years)
Stored pressure water, loaded stream, and/or antifreeze	5
Wetting agent	5
Aqueous film forming foam (AFFF)	5
Film-forming fluoroprotein foam (FFFP)	5
Dry chemical with stainless steel	5
Carbon dioxide	5
Wet chemical	5
Dry chemical, stored pressure, with mild steel, brazed brass or shells	12
Dry chemical, cartridge- or cylinder-operated, with mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry powder, cartridge or cylinder operated with mild steel shells	12

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Note: Portable extinguishers shall not be hydrostatically tested if the unit has been repaired by soldering, welding, brazing, or use of patching compounds; if the cylinder or shell thread are damaged; if there is corrosion that has caused pitting, including corrosion under removable name plate assemblies; if the extinguisher has been burned in a fire; or if calcium chloride extinguishing agent has been used in a stainless steel shell.

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| 37.* | Is hydrostatic testing performed by trained persons with suitable testing equipment and facilities? [29 CFR 1910.157(f)(1) and N.J.A.C. 5:70-3.2{NFPA 10}] | Y N N/A DK |
| 38.* | Are hydrostatic testing certification records maintained that show the date of the test, the signature of the person who performed the test and the serial number, or other identifier, of the fire extinguisher that was tested? [29 CFR 1910.157(f)(16)] | Y N N/A DK |

Definitions:

Class A Fire means a fire involving ordinary combustible materials such as paper, wood, cloth, and some rubber and plastic materials.

Class B Fire means a fire involving flammable or combustible liquids, flammable gases, greases and similar materials, and some rubber and plastic materials.

Class C Fire means a fire involving energized electrical equipment where safety requires the use of electrically nonconductive extinguishing media.

Class D Fire means a fire involving combustible metals such as aluminum, magnesium, titanium, zirconium, sodium, lithium and potassium.

Class K Fire means a fire involving combustible cooking media (vegetable or animal oils and fats) associated with cooking appliances.

Incipient Stage Fire means a fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus.

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