

\*\*\*\*\*  
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
NASA-10523 (June 2004)  
NASA  
Superseding NASA-10523  
(October 2003)  
\*\*\*\*\*

SECTION TABLE OF CONTENTS

DIVISION 10 - SPECIALTIES

SECTION 10523

FIRE EXTINGUISHERS

06/04

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 SUBMITTALS
- 1.3 DELIVERY, HANDLING, AND STORAGE

PART 2 PRODUCTS

- 2.1 TYPES
- 2.2 MATERIAL
- 2.3 SIZE
- 2.4 ADJUNCTS
- 2.5 CABINETS
  - 2.5.1 Material
  - 2.5.2 Type
  - 2.5.3 Size
- 2.6 WALL BRACKETS

PART 3 EXECUTION

- 3.1 INSTALLATION
- 3.2 ACCEPTANCE PROVISIONS
  - 3.2.1 Repairing
  - 3.2.2 Cleaning

-- End of Section Table of Contents --

\*\*\*\*\*  
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
NASA-10523 (June 2004)  
NASA  
Superseding NASA-10523  
(October 2003)  
\*\*\*\*\*

SECTION 10523  
FIRE EXTINGUISHERS  
06/04

\*\*\*\*\*  
NOTE: Delete, revise, or add to the text in this section to cover project requirements. Notes are for designer information and will not appear in the final project specification.

This section covers hand fire extinguishers, including wall brackets, cabinets, and accessories, complete.

Associated work found in other sections includes fire extinguisher cabinets and fire protection system.

Drawings must indicate locations for the installation.

\*\*\*\*\*

PART 1 GENERAL

1.1 REFERENCES

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (2002) Standard for Portable Fire Extinguishers

1.2 SUBMITTALS

\*\*\*\*\*  
NOTE: Review submittal description (SD) definitions in Section 01330 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project. Submittals should be kept to the minimum required for adequate quality control. Include a columnar list of appropriate products and tests beneath each submittal description.  
\*\*\*\*\*

The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES in sufficient detail to show full compliance with the specification:

SD-02 Shop Drawings

Fabrication drawings shall be submitted for the following items consisting of fabrication and assembly details to be performed in the factory. Installation drawings shall be submitted for the following items in accordance with the paragraph entitled, "Installation," of this section.

Fire Extinguishers  
Adjuncts  
Cabinets  
Wall Brackets

#### SD-03 Product Data

Manufacturer's catalog data shall be submitted for the following items:

Fire Extinguishers  
Adjuncts  
Cabinets  
Wall Brackets  
Replacement Parts

#### SD-04 Samples

One Fire Extinguishers of each type to be installed

One full-sized sample of each type Cabinets to be installed

Three samples of Wall Brackets and Accessories of each type to be used

Approved samples may be used for installation, with proper identification.

#### SD-07 Certificates

Certificates shall be submitted showing the following:

Certification that Fire Extinguishers comply with local codes and regulations

Certification that Fire Extinguishers comply with OSHA requirements

Fire Extinguishers will be free of defects in materials, fabrication, finish, and installation and that they will remain so for a period of not less than [\_\_\_\_\_] years after completion.

### 1.3 DELIVERY, HANDLING, AND STORAGE

Materials shall be protected from weather, soil, and damage during delivery, storage, and construction.

Materials shall be delivered in their original packages, containers, or bundles bearing the brand name and the name of the material.

PART 2 PRODUCTS

2.1 TYPES

\*\*\*\*\*  
NOTE: Select one or more of the following types of fire extinguishers, as required. Air pressurized, water cartridge, and soda and acid extinguishers must be used for paper, wood, cloth, or rubbish (Class A) hazards. Foam, carbon dioxide, and dry chemical extinguishers must be used for burning liquids such as gasoline, paint, or oil (Class B) hazards. Carbon-dioxide or dry-chemical extinguishers must be used for electrical hazards (Class C). Types shall be as indicated.  
\*\*\*\*\*

Fire Extinguishers shall conform to NFPA 10.

Fire extinguishers shall be water, [stored-pressure] [cartridge] [hand-pump] type.

Fire extinguishers shall be [foam] [carbon-dioxide] [dry-chemical] type.

2.2 MATERIAL

\*\*\*\*\*  
NOTE: Select one or more of the following for the shell material. Manufacturer's must be checked to ensure that the material and extinguisher type are compatible.  
\*\*\*\*\*

Extinguisher shell shall be [corrosion-resistant steel] [copper] [aluminum] [enameled steel].

2.3 SIZE

\*\*\*\*\*  
NOTE: Select one or more of the following for the size of the extinguisher. Size shall be as indicated.  
\*\*\*\*\*

Extinguishers shall be 2-1/2 gallons 9.5 liter.

Extinguishers shall be 2-1/2 pounds 1.1 kilogram.

Extinguishers shall be [5] [10] [15] [20] [30] pounds [2.3] [4.5] [6.8] [9] [13.6] kilogram.

2.4 ADJUNCTS

\*\*\*\*\*  
NOTE: Select items as applicable. UL rating shall be as indicated.  
\*\*\*\*\*

[Forged brass valve]

[Fusible plug]

[Safety release]

[Antifreeze]

[Pressure gage]

## 2.5 CABINETS

\*\*\*\*\*  
NOTE: Include the following paragraphs if fire extinguishers are to be located in cabinets. If fire extinguishers are to be hung on wall brackets only, then delete cabinet requirements.  
\*\*\*\*\*

### 2.5.1 Material

\*\*\*\*\*  
NOTE: Select one of the following materials for cabinets.  
\*\*\*\*\*

Cabinets shall be [enameled steel] [corrosion-resistant steel] [aluminum].

### 2.5.2 Type

\*\*\*\*\*  
NOTE: Select one of the following types.  
\*\*\*\*\*

Cabinet shall be the [recessed] [trimless] [surface] type.

Cabinet shall be semirecessed for a [6-inch] [4-inch] [150] [100] millimeter wall.

Cabinet shall be the [recessed] [trimless] [surface] bubble type.

### 2.5.3 Size

Dimensions of cabinets shall be as indicated and shall be of adequate size to accommodate the specified fire extinguishers.

## 2.6 WALL BRACKETS

\*\*\*\*\*  
NOTE: Delete the paragraph heading and the following paragraphs if cabinets are specified. Select one of the following.  
\*\*\*\*\*

Fire extinguishers shall have [running-board] [spring-clip] [wall-hook] brackets.

Wall bracket and Accessories shall be as approved.

PART 3 EXECUTION

3.1 INSTALLATION

\*\*\*\*\*

NOTE: Class A light-hazard occupancies such as office buildings must have a Class A extinguisher within a 75-foot 25 meter travel distance with one unit of 1A rating for every 3,000 square feet 280 square meter of floor area; ordinary hazard occupancies such as warehouses and department stores: 75-foot 25 meter travel distance with one unit of 2A rating for every 3,000 square feet 280 square meter; and extra hazard occupancies such as woodworking and spray painting locations: 75-foot 25 meter travel distance with one unit of 3A rating for every 3,000 square feet 280 square meter.

Class B light-hazard occupancies must have a Class B extinguisher within 50-foot 15 meter travel distance with one unit of 4B rating; ordinary hazard occupancies: 50-foot 15 meter travel distance with one unit of 8B rating; extra hazard occupancies: 50-foot 15 meter travel distance with one unit of 12B rating. For deep-layer flammable-liquid fire hazards such as dip tanks, one unit of Class B extinguishing potential required for each square foot 0.1 square meter of the largest individual hazard unless an approved automatic system is installed.

Class C extinguishers, where there are electrical hazards, are distributed on the same basis as Class B extinguishers.

\*\*\*\*\*

Fire Extinguishers shall be installed where indicated. Exact locations shall be verified prior to installation.

Installation of extinguishers shall comply with the manufacturer's recommendations.

Extinguishers shall be fully charged and ready for operation upon installation.

3.2 ACCEPTANCE PROVISIONS

3.2.1 Repairing

Damaged and unacceptable portions of completed work shall be removed and replaced with new work at no additional cost to the Government.

Replacement Parts list shall be provided by the Contractor indicating specified items replacement part, replacement cost, and name, address and contact for replacement parts distributor.

3.2.2 Cleaning

Surfaces of the work, and adjacent surfaces soiled as a result of the work, shall be cleaned in an approved manner. Equipment, surplus materials, and

rubbish from the work shall be removed from the site.

-- End of Section --