SECTION 104416 - FIRE EXTINGUISHERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section includes portable, [hand-carried] [wheeled] fire extinguishers[ and mounting brackets for fire extinguishers] installed as part of the project. This specification does not address Contractor-supplied fire extinguishers used during the construction period but the Contractor shall not use already installed Government-owned fire extinguishers to meet construction (hot work) requirements.
B. NIH-Furnished Material: [Hand-carried] [Wheeled] fire extinguishers.
C. Related Sections:
   1. Division 10 Section "Fire Extinguisher Cabinets."
   2. Division 21 Section "Water-Based Fire-Suppression Systems" for hose systems, racks, and valves.
   3. Division 23 Section "Commercial-Kitchen Hoods" for fire extinguishing systems provided as part of commercial-kitchen exhaust hoods.

1.3 UNIT PRICES
A. Work of this Section is affected by <Insert name of unit price>.

1.4 SUBMITTALS
A. Product Data: For each type of product indicated. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher[ and mounting brackets].
B. Product Schedule: For fire extinguishers. Coordinate final fire extinguisher schedule with fire protection cabinet schedule to ensure proper fit and function.[Use same designations indicated on Drawings.]
C. Remaining paragraphs are defined in Division 01 Section "Submittal Procedures" as "Informational Submittals." Operation and Maintenance Data: For fire extinguishers to include in maintenance manuals.
D. Warranty: Sample of special warranty.
1.5 QUALITY ASSURANCE

A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."

B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

   1. Provide fire extinguishers approved, listed, and labeled by FMG.

C. Fire extinguisher submittals shall be reviewed and approved by the NIH Division of the Fire Marshal before purchase of the extinguishers.

   1. Review methods and procedures related to fire extinguishers including, but not limited to, the following:

      a. Schedules and coordination requirements.

1.6 COORDINATION

A. Coordinate type and capacity of fire extinguishers with fire protection cabinets to ensure fit and function.

B. Coordinate fire extinguisher model with the spare parts maintained by the NIH Fire Department for extinguisher testing, recharge and maintenance.

1.7 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace fire extinguishers that fail in materials or workmanship within specified warranty period.

   1. Failures include, but are not limited to, the following:

      a. Failure of hydrostatic test according to NFPA 10.
      b. Faulty operation of valves or release levers.

   2. Warranty Period: [Six] <Insert number> years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

A. Fire Extinguishers: Type, size, and capacity for each [fire protection cabinet] [mounting bracket] [fire protection cabinet and mounting bracket] indicated.
1. Manufacturers: Subject to compliance with requirements, provide products which utilize the following spare parts maintained by the NIH Fire Department to allow their testing, recharge and maintenance.

2. Stored-Pressure Water Type extinguisher
   a. Amerex Pull Pin
   b. Amerex Tamper seal
   c. Amerex 532A chain for Pin
   d. Amerex G100WS gauge - 100
   e. Amerex 5240A Collar O-ring
   f. Amerex 14878A – valve stem assembly
   g. Amerex 5243A – valve stem O-ring
   h. Amerex 383A – spring
   i. Amerex 6978 – hose gasket O-ring

3. Multipurpose Dry-Chemical Type extinguisher in Steel Container
   a. Amerex Pull Pin
   b. Amerex Tamper seal
   c. Amerex 532A chain for Pin
   d. Amerex G195 gauge - 195
   e. Amerex 5241A Collar O-ring
   f. Amerex 6092A – valve stem assembly
   g. Amerex 1074A - spring
   h. Amerex 1532A – hose gasket O-ring

4. Valves: [Manufacturer's standard] [Nickel-plated, polished brass body].

5. Handles and Levers: [Manufacturer's standard] [Stainless steel].

6. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B [and bar coding for documenting fire extinguisher location, inspections, maintenance, and recharging].

B. Stored-Pressure Water Type <Insert drawing designation>: UL-rated 2-A, 9.5-L (2.5-gal.) nominal capacity, with water in stainless-steel container; with pressure-indicating gage.

C. Wet-Chemical Type <Insert drawing designation>: UL-rated 2-A:1-B:C:K, [6-L (1.6-gal.)] [9.5-L (2.5-gal.)] nominal capacity, with potassium [acetate] [citrate] [carbonate]-based chemical in stainless-steel container; with pressure-indicating gage.

D. Multipurpose Dry-Chemical Type in Steel Container: UL-rated 4-A:60-B:C, 4.5-kg (10-lb) nominal capacity, with monoammonium phosphate-based dry chemical in enameled-steel container.

E. Multipurpose Dry-Chemical Type in Aluminum Container 4.5-kg (10-lb) nominal capacity, with monoammonium phosphate-based dry chemical in enameled-aluminum container.
2.2 MOUNTING BRACKETS <Insert drawing designation>

A. Mounting Brackets: Manufacturer's standard galvanized steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or red black baked-enamel finish.

1. Manufacturers: Subject to compliance with requirements, [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:
2. Basis-of-Design Product: Subject to compliance with requirements, provide [product indicated on Drawings] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
   a. Amerex Corporation.
   b. Ansul Incorporated; Tyco International Ltd.
   c. Badger Fire Protection; a Kidde company.
   d. Buckeye Fire Equipment Company.
   e. Fire End & Croker Corporation.
   g. Larsen's Manufacturing Company.
   h. Potter Roemer LLC.
   i. <Insert manufacturer's name>.

B. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Contracting Officer.

1. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.
   a. Orientation: [Vertical] [Horizontal].

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine fire extinguishers for proper charging and tagging.
   1. Remove and replace damaged, defective, or undercharged fire extinguishers.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install fire extinguishers[ and mounting brackets] in locations indicated and in compliance with requirements of authorities having jurisdiction.
   1. Mounting Brackets: [1372 mm (54 in.]) <Insert dimension> above finished floor to top of fire extinguisher.
B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION 104416