SAM HOUSTON STATE UNIVERSITY DIVISION 21FIRE SUPPRESSION DESIGN AND CONSTRUCTION STANDARDS

212000 FIRE EXTINGUISHING SYSTEM____ February 2016

PART 2 PRODUCTS

2.01 Clean Agent Systems

- A. Pipe: Black Steel Pipe: ASTM A 53 seamless. Grades A or B, with internal working pressure equal to the maximum pressure of the clean agent system being utilized. ASTM A 120 or ASTM A 53 Class "F" shall not be used.
- B. Pipe Joints and Fittings: In accordance with NFPA 2001 for clean agent system being utilized and compatible with piping. Roll groove fittings must be approved by the manufacturer for use with the clean agent system.
- C. Pipe Hangers: ASME B31.1, UL or FM approved for sprinkler systems, split clamp up to 21/2 inch size, riser clamps over 2-1/2 inch size, adequate for offset of discharge thrust.
- D. Escutcheons: Chrome plated pressed or stamped brass, one piece or split pattern, minimum 2-inches larger than opening.
- E. Gauges: ASME B40.1, UL 393, and UL 404, 3-1/2 inch diameter cast aluminum case, phosphor bronze bourdon tube, rotary brass movement, brass socket, front recalibration adjustment, black figures on white background, one percent midscale accuracy, scale calibrate in pounds per square inch.

2.02 Wet and Dry Chemical Extinguishing Systems

- A. Provide wet chemical extinguishing systems in accordance with NFPA 17A. Where the wet chemical extinguishing system is protecting cooking appliances, hoods, and branch exhaust ducts, the system shall comply with UL 300, *Fire Testing of Fire Extinguishing Systems for Protection of Restaurant Cooking Areas*. Utilize discharge nozzles, manual actuators, shutoff devices, pipe, and fittings in accordance with NFPA 17A and manufacturer's requirements.
- B. Monitor wet and dry chemical extinguishing systems with building fire alarm system.
- C. Any wet chemical extinguishing system shall consist of Neutral PH Agent

PART 3 EXECUTION

3.01 Guarantee

A. The Contractor shall guarantee and service all workmanship and materials to be as represented by him, and shall repair or replace, at no additional cost to the Owner, any part thereof, which may become defective within the period of one (1) year after the date of final acceptance by the Engineer, ordinary wear and tear excepted. Contractor shall be responsible for, and pay for, any damages caused by, or resulting from defects in his work.

3.02 Qualifications

A. System design and installation shall be supervised by a licensed NICET Level III sprinkler system technician or fire protection engineer with not less than five (5) years experience with sprinkler systems. Shop drawings shall be prepared and engineered. Accurate As-Built drawings shall be

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required in the form of three hard copies and two copies on CD in the specified format. The signature of the RME or engineer constitutes an affidavit that the statements, representations, and information presented in the submittal constitute a complete operational system conforming to applicable state laws and recognized good engineering practices. All field installation work shall be continuously supervised by a NICET Level II or III sprinkler system technician.

3.03 Clean Agent Systems Testing

A. Pressure test entire enclosure with test fan procedures per NFPA 2001, pressurizing protected area both under positive and negative conditions. Confirm that leakage is within system design all.ste73.3 (m3.9(nt)n T

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