PART 1 - GENERAL

1.1 REFERENCES

.1 American National Standard Institute (ANSI)/American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

.1 ANSI/ASHRAE 52.2-Latest Edition, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particulate Size (ANSI approved).

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-115.10-Latest Edition, Disposable Air Filters for the Removal of Particulate Matter from Ventilating Systems.

.2 CAN/CGSB-115.14-Latest Edition, High Efficiency Cartridge Type Supported Air Filters for the Removal of Particulate Matter from Ventilating Systems.

.3 CAN/CGSB-115.15-Latest Edition, High Efficiency Rigid Type Air Filters for Removal of Particulate Matter from Ventilating Systems.

.4 CAN/CGSB-115.18-Latest Edition, Filter, Air, Extended Area Panel Type, Medium Efficiency.

.5 CAN/CGSB-115.20-Latest Edition, Polarized Media Air Filter.

.3 National Fire Protection Association (NFPA)

.1 NFPA 96-Latest Edition, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

.4 Underwriters' Laboratories of Canada (ULC)

.1 ULC-S646-Latest Edition, Exhaust Hoods and Related Controls for Commercial and Institutional Kitchens.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:
.1 Submit manufacturer's instructions, printed product literature and data sheets for HVAC filters and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Shop Drawings:
.1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Newfoundland and Labrador, Canada.

.4 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

1.3 MAINTENANCE MATERIAL SUBMITTALS

.1 Extra Materials:
.1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
.2 Furnish list of individual manufacturer's recommended spare parts for equipment such as frames and filters, addresses of suppliers, list of specialized tools necessary for adjusting, repairing or replacing for inclusion in operating manual.
.3 Spare filters: in addition to filters installed immediately prior to acceptance by Departmental Representative, supply 2 complete sets of filters for each.

1.4 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory

1.4 DELIVERY, STORAGE AND HANDLING (Cont'd)

.2 (Cont'd)
packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:
.1 Store materials indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
.2 Store and protect HVAC filters from nicks, scratches, and blemishes.
.3 Replace defective or damaged materials with new.

PART 2 - PRODUCTS

2.1 GENERAL

.1 Media: suitable for air at 100% RH and air temperatures between -40 and 50 degrees C.

.2 Number of units, size and thickness of panels, overall dimensions of filter bank, configuration and capacities: as indicated on drawings and specifications.

2.2 ACCESSORIES

.1 Holding frames: permanent or channel section construction of same material as casing/hood.

.2 Seals: to ensure leakproof operation.

.3 Blank-off plates: as required, to fit all openings and of same material as holding frames.

.4 Access and servicing: through doors/panels on each side.

2.3 FIBROUS GLASS PANEL FILTERS

.1 Disposable fibrous glass media: to CAN/CGSB-115.10 with adhesive.

2.3 FIBROUS GLASS PANEL FILTERS (Cont'd)

.2 Holding frame: 1.2 mm minimum thick galvanized steel with 3 mm diameter hinged wire mesh screen.

.3 Performance: minimum average synthetic dust weight arrestance 70% to ANSI/ASHRAE 52.2.

.4 Fire rated: to ULC -S111.

.5 Nominal thickness: 50 mm.

2.4 COTTON PANEL FILTERS

.1 Disposable pleated reinforced cotton dry media: to CAN/CGSB 115.18.

.2 Holding frame: galvanized steel, or slide in channel for side access.

.3 Performance:
.1 Average atmospheric dust spot efficiency 30% to ANSI/ASHRAE 52.2.
.2 Average synthetic dust weight arrestance 90% to ANSI/ASHRAE 52.2.

.4 Fire Rated: to ULC -S111.

.5 Nominal thickness: 50 mm.

2.5 FILTER GAUGES - DIAL TYPE

.1 Diaphragm actuated, direct reading.

.2 Range: 0 to 250 Pa.

PART 3 - EXECUTION

3.1 EXAMINATION

.1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for filter installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate in presence of Departmental Representative.

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 INSTALLATION GENERAL

.1 Install in accordance with manufacturer's recommendations and with adequate space for access, maintenance and replacement.

3.3 REPLACEMENT MEDIA

.1 Replace media with new upon acceptance.

.2 Filter media new and clean, as indicated by pressure gauge, at time of acceptance.

3.4 FILTER GAUGES

.1 Install type as indicated across each filter bank (pre-filter and final filter) in approved and easy readable location.

.2 Mark each filter gauge with value of pressure drop for clean condition and manufacturer's recommended replacement (dirty) value.

3.5 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

.3 Waste Management: separate waste materials for reuse and recycling.

END