This section is for use in conjunction with DeCA Specification 01450 Sequence of Finish Installation. The A-E shall review all items in yellow and edit the Guide Specification for Section 01450 as appropriate.

PART 1 - GENERAL

1.1 SUMMARY

1.1.1 This section defines special construction scheduling/sequencing requirements and procedures necessary to assure achievement of designed Indoor Air Quality (IAQ) levels for the completed project required by the EPA IAQ Program.

1.1.1.1 Scheduling: Special construction scheduling involves defined and controlled sequencing of finishes applications to ensure dissipation of emissions from finishes that off-gas significant quantities of deleterious material during curing, to separate these effects from the installation of adsorptive materials that would act as a "sink" for storage and subsequent release of these unwanted substances into building spaces and mechanical systems after project occupancy.

1.1.1.2 Procedures: Special procedures involve provision of ventilation during construction.

1.2 RELATED WORK

1.2.1. Baseline testing for Indoor Air Quality is specified in Division 15 Section "Testing, Adjusting, and Balancing".

1.2.2. Product emission testing procedures are specified in Division 1 Section "Testing for Indoor Air Quality, Baseline IAQ and Materials".

1.2.3. Duct cleaning as specified in Division 15 Section "Testing, Adjusting, and Balancing".

1.3 DEFINITIONS

1.3.1. Type 1 Finishes: Materials and finishes which have a potential for short-term levels of off gassing from chemicals inherent in their manufacturing process, or which are applied in a form requiring vehicles or carriers for spreading which release a high level of particulate matter in the process of installation and/or curing. Type 1 Finishes include, but are not limited to the following:

1.3.1.1 Composite wood products, specifically including particleboard from which millwork, wood paneling, doors or furniture may be fabricated.

1.3.1.2 Adhesives, sealants, and glazing compounds, specifically those with petrochemical vehicles or carriers.

1.3.1.3 Wood preservatives, finishes, and paint.

1.3.1.4 Control and/or expansion joint fillers.

1.3.1.5 All hard finishes requiring adhesive installation.

1.3.1.6 Gypsum board and associated finish processes.
1.3.2. Type 2 Finishes: "Fuzzy" materials and finishes which are woven, fibrous, or porous in nature and tend to adsorb chemicals off gassed by Type 1 finishes or may be adversely affected by particulates. These materials become "sinks" for deleterious substances which may be released much later, or collectors of contaminants that may promote subsequent bacterial growth. Type 2 Finishes include, but are not limited to the following:

1.3.2.1 Carpet and padding.
1.3.2.2 Fabric wall covering.
1.3.2.3 Insulation exposed to the air stream.
1.3.2.4 Acoustic ceiling materials.
1.3.2.5 Fabric covered acoustic wall panels.
1.3.2.6 Upholstered furnishings.

1.3.3. Materials that can be categorized as both Type 1 and Type 2 materials shall be considered to be Type 1 materials.

1.4 SUBMITTALS

1.4.1. Supplementary Construction Schedule: Submit a schedule of construction showing compliance with requirements of this section as a supplement to the schedule in accordance with applicable requirements of Division 1 "Critical Path Method Scheduling" Section 01310.

1.4.1.1 Show sequence of finishes applications and allowances for curing times. Within each air zone identify finishes, indicating their type classifications.

(1) An air zone is that part of any floor area served by a single air handling unit.

1.4.1.2 Indicate and schedule types and durations of temporary ventilations proposed. Show schedule for commissioning procedures and all temporary usages of building mechanical systems, identifying types of filtration used and schedule of filter replacement and change outs.

1.4.2. Material Safety Data Sheets (MSDSs): Requirements for submittal of MSDSs are specified in the individual specification sections of this Project Manual as required.

1.5 QUALITY ASSURANCE

1.5.1. General: Perform the work of this section as a supplement to and in accordance with applicable requirements of Division 1 "Contractor Quality Control Program" section.

1.5.2. Finishes Installation Scheduling: As part of the Coordination and Mutual Understanding Meeting, discuss the Supplementary Construction Schedule required under this section. The purpose of this agenda item is to assure understanding of the importance of sequencing of finishes to the overall Indoor Air Quality of the facility and to secure preliminary approval of the Contracting Officer for scheduling and installation requirements for on-site work.

PART 2 - PRODUCTS (NOT APPLICABLE)
PART 3 - EXECUTION

3.1 PREPARATION

3.1.1. Certify in writing to the Contracting Officer's Representative that interior environmental control has been implemented as specified below and that required conditions are being maintained, and obtain the Contracting Officer's Representative's approval before starting installation of interior finishes.

3.1.2. Coordination: The Contractor is responsible to schedule and coordinate the work of all finishes installers to assure compliance with the requirements of this specification section.

3.2 INTERIOR ENVIRONMENTAL CONTROL

3.2.1. Provide and maintain controlled interior environment in accordance with the following requirements before beginning installation of interior finish materials in order to dilute and exhaust vapors produced by solvents and other carriers from liquid applied materials, and particulate matter from residual manufacturing chemicals contained in solid products.

3.2.2. Supply 100 percent outside air 24 hours a day. Supply airflow at 6 air changes per hour when outside temperatures are between 55 deg F and 85 deg F and humidity is between 30 percent and 60 percent. Supply a minimum of 1.5 air changes per hour when conditions are not within this range. (See Division 15 "Testing, Adjusting, and Balancing").

3.2.2.1 The supply air system must have filters in place. Filtration of 30 percent efficiency should be maintained.

3.2.2.2 The HVAC system may be used to move both supply and return air with the following exceptions:

   (1) Permanent return air ductwork must be cleaned per National Air Duct Cleaning Association standards upon completion of all construction and finish installation work.
   (2) No recirculating air is permitted. Temporary exhaust systems may be used to exhaust air directly to the outside from the construction area.

3.2.3. Begin construction ventilation when the building is substantially enclosed.

3.2.4. Pre-commissioning and commissioning procedures for HVAC systems, including duct cleaning and filter replacement prior to release of the project to the Government for occupancy are specified in Division 15 sections.

END OF SECTION 01450