

SECTION 01 35 59

INDOOR AIR QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings
- B. Book 1: Project Information, Instructions to Bidders, and Execution Documents
- C. Book 2: Standard Terms and Conditions for Construction Contracts

1.2 SUMMARY

- A. Section includes general requirements and procedures for compliance with Indoor Air Quality goals.
 - 1. This project will track specific parameters identified herein but will not seek LEED certification.
 - 2. Materials data and information is to be submitted by the Contractor in accordance with the Technical Specifications.

1.3 DEFINITIONS

- A. Commission Representative: the person assigned, in writing, by the Executive Director to be the Commission's Representative for the project
- B. LEED: Leadership in Energy & Environmental Design.

1.4 SUBMITTALS

- A. General: Technical Specifications contain Indoor Environmental Quality requirements specific to the Work of each of these Sections. Submit in accordance with the project specifications.
- B. Indoor Air Quality Management Plans: Required as necessary to meet City and other regulatory requirements, and as specified herein. Plans shall include written narratives with back-up as indicated herein. Provide updates as part of monthly report.
 - 1. Construction Indoor-Air-Quality Management Plan to maintain indoor air quality during construction.
 - 2. Indoor Air Quality measures – Narrative description of applicable measures undertaken.

3. Product data on HVAC equipment indicating absence of CFC refrigerants and use of refrigerants with low ozone depletion and global warming potential.
4. Indoor Air Quality During Construction - Construction indoor-air-quality management plan based on SMACNA IAQ Guidelines for Occupied Buildings under Construction, 1995, Chapter 3.
 - a. Product data for temporary filtration media.
 - b. Product data for filtration media used during occupancy.
 - c. Provide documentation confirming that smoking was not allowed inside the building during construction. (no smoking on CPS property is a CPS requirement)
5. Low-Emitting Materials
 - a. Provide submittals for materials as follows for compliance with section 2.1: 1) Adhesives & Sealants; 2) Paints & Coatings; 3) Flooring Systems; 4) Composite Wood and Agrifiber Products.

1.5 QUALITY ASSURANCE

- A. Contractor's documentation shall be in compliance Technical Specifications.

PART 2 - PRODUCTS

2.1 LOW-EMITTING MATERIALS

- A. The General Contractor shall review the manufacturers and products listed in the Technical Specifications, and verify compliance with the applicable guidelines below.
 1. Adhesives & Sealants: Provide product data and MSDS for adhesives and sealants used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA Method 24). Comply with the following limits:
 - a. Wood Glues: 30 g/L.
 - b. Metal to Metal Adhesives: 30 g/L.
 - c. Adhesives for Porous Materials (Except Wood): 50 g/L.
 - d. Subfloor Adhesives: 50 g/L.
 - e. Plastic Foam Adhesives: 50 g/L.
 - f. Carpet Adhesives: 50 g/L.
 - g. Carpet Pad Adhesives: 50 g/L.
 - h. VCT and Asphalt Tile Adhesives: 50 g/L.
 - i. Cove Base Adhesives: 50 g/L.
 - j. Gypsum Board and Panel Adhesives: 50 g/L.
 - k. Rubber Floor Adhesives: 60 g/L.
 - l. Ceramic Tile Adhesives: 65 g/L.
 - m. Multipurpose Construction Adhesives: 70 g/L.
 - n. Fiberglass Adhesives: 80 g/L.
 - o. Contact Adhesive: 80 g/L.
 - p. Structural Glazing Adhesives: 100 g/L.

- q. Wood Flooring Adhesive: 100 g/L.
 - r. Structural Wood Member Adhesive: 140 g/L.
 - s. Special Purpose Contact Adhesive (contact adhesive that is used to bond melamine covered board, metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.
 - t. Top and Trim Adhesive: 250 g/L.
 - u. Plastic Cement Welding Compounds: 350 g/L.
 - v. ABS Welding Compounds: 400 g/L.
 - w. CPVC Welding Compounds: 490 g/L.
 - x. PVC Welding Compounds: 510 g/L.
 - y. Adhesive Primer for Plastic: 650 g/L.
 - z. Sheet Applied Rubber Lining Adhesive: 850 g/L.
 - aa. Aerosol Adhesive, General Purpose Mist Spray: 65 percent by weight.
 - bb. Aerosol Adhesive, General Purpose Web Spray: 55 percent by weight.
 - cc. Special Purpose Aerosol Adhesive (All Types): 70 percent by weight.
 - dd. Other Adhesives: 250 g/L.
 - ee. Architectural Sealants: 250 g/L.
 - ff. Nonmembrane Roof Sealants: 300 g/L.
 - gg. Single-Ply Roof Membrane Sealants: 450 g/L.
 - hh. Other Sealants: 420 g/L.
 - ii. Sealant Primers for Nonporous Substrates: 250 g/L.
 - jj. Sealant Primers for Porous Substrates: 775 g/L.
 - kk. Modified Bituminous Sealant Primers: 500 g/L.
 - ll. Other Sealant Primers: 750 g/L.
2. Paints & Coatings: Provide product data and MSDS for paints and coatings used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- Or provide VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA Method 24). Comply with the following limits:
- a. Flat Paints and Coatings: VOC not more than 50 g/L.
 - b. Nonflat Paints and Coatings: VOC not more than 150 g/L.
 - c. Primers: VOC not more than 50 g/L.
 - d. Anticorrosive and Antirust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.
 - e. Clear Wood Finishes, Varnishes: VOC not more than 350 g/L.
 - f. Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.
 - g. Floor Coatings: VOC not more than 100 g/L.
 - h. Shellacs, Clear: VOC not more than 730 g/L.
 - i. Shellacs, Pigmented: VOC not more than 550 g/L.
 - j. Stains: VOC not more than 250 g/L.
3. Flooring Systems: Provide product data for carpet products showing compliance with the Carpet and Rug Institute's Green Label Plus program. Provide product data for vinyl, linoleum, rubber and laminate flooring showing compliance with the FloorScore program requirements.

4. Composite Wood and Agrifiber Products: Provide product data for products containing composite wood or agrifiber products or wood glues indicating that they do not contain urea-formaldehyde resin.

PART 3 - EXECUTION

3.1 CONSTRUCTION INDOOR-AIR-QUALITY MANAGEMENT

- A. Comply with the intent of LEED Credit EQ 3.1: Comply with ALL provisions of SMACNA's "SMACNA IAQ Guideline for Occupied Buildings under Construction, 1995, Chapter 3."
 1. If Owner authorizes use of permanent heating, cooling, and ventilating systems during construction period as specified in Division 1 Section "Temporary Facilities and Controls," install filter media having a MERV 8 according to ASHRAE 52.2 at each return-air inlet for the air-handling system used during construction.
 2. Replace ALL air filters immediately prior to occupancy.
 3. SMACNA IAQ protocols as follows:
 - a. As air ducts, air handlers, air terminal units, grilles, diffusers, louvers, dampers, fans, filters and absorptive materials (gypsum board, ceiling tile, etc) have been delivered to the site, demonstrate method of protection while stored on site before installation.
 - b. As air ductwork has been partially installed, demonstrate method of protection to ensure zero entrainment of construction dust/debris into partially installed ductwork.
 - c. As air grilles, diffusers have been permanently installed; demonstrate method of protection to ensure zero entrainment of construction dust/debris into all air conveyance systems.
 - d. At end of each work day, demonstrate cleaning of floors to mitigate dust/debris accumulation.
 4. No smoking is allowed within the building and within 25 feet of building entrances once the building is enclosed. There is NO smoking on a School property.

3.2 MATERIAL AND CONSTRUCTION PROTECTION

- A. Deliver, store and handle products and materials using methods that will prevent damage and deterioration and in accordance with manufacturer's recommendations. Deliver to minimize long term storage in undamaged condition in manufacturer's original unopened, undamaged containers complete with labels and instructions. Store products and materials subject to damage by the elements under cover in a weather tight enclosure above ground with ventilation adequate to prevent condensation. Protect from freezing and moisture intrusion.
- B. Inspect materials and products promptly upon arrival at the site for damage, soiling, contaminants and dampness and reject as appropriate.

- C. Provide protection during the construction process to prevent moisture intrusion, freezing, dirt and debris within assemblies and extremes in temperature not common to the in-place use environment of the element. Do not allow food and drink or food and drink containers or material protective wrapping to be incorporated into the Work.
- D. Install Work in sequence with sufficient time for curing and drying of each element before subsequent work upon which such work depends.
- E. Promptly take measures to dry or remove and replace materials products and portions of the project that evidence absorption of moisture or are wet before incorporation proceeding with the work and incorporation or of such materials or products into the project.

END OF SECTION