Technical Specifications for Furniture (Invitations to Bid and Requests for Proposals)

All furniture supplied under this Price Agreement shall comply with the restrictions on the following chemicals of concern. Verification of compliance shall be provided to [purchasing entity] prior to contract award.

I. Flame Retardant Chemicals

All furniture supplied under this Price Agreement shall be free of flame retardant chemicals at levels above 1,000 parts per million in both standard and optional components, excluding electrical components.

A product may contain flame retardants if required to meet code or regulation (e.g., TB 133 or ASTM E 1537), in accordance with the following criteria:

1. No halogenated flame retardant chemical may be used at levels above 1,000 parts per million by weight of the homogeneous material, excluding electrical components.
2. Products that contain flame retardant chemicals that have been fully assessed using GreenScreen v1.2 (or newer) and meet the criteria for benchmark 2, 3, or 4 will be preferred.

All upholstered seating complying with TB 117-2013 under this Price Agreement shall be labeled as not containing flame retardant chemicals consistent with the manner described in Section 19094 of the California Business and Professions Code.

II. Formaldehyde and Volatile Organic Compounds (VOCs)

All furniture supplied under this Price Agreement shall comply with ANSI/BIFMA e3-2014 Furniture Sustainability Standard, Sections 7.6.1 and 7.6.2, using either the concentration modeling approach or the emissions factor approach. Test results shall be modeled using the open plan, private office, or seating scenario in ANSI/BIFMA M7.1, as appropriate. Furniture products that additionally meet ANSI/BIFMA e3-2014 Section 7.6.3 and/or California Department of Public Health Standard Method v1.1 (emission testing method for California Section 01350) will be preferred.

Salvaged and refurbished furniture more than one-year old at the time of re-use is considered compliant, provided it meets the requirements for any site-applied paints, coatings, adhesives, and sealants.

All composite wood materials, including hardwood plywood, particleboard, or medium density fiberboard, used in office, classroom, or healthcare furniture shall comply with Phase 2 of California's Code of Regulations, Title 17 §93120.2 – Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products.

III. Per and Poly-Fluoroalkyl Substances (PFASs) used as stain/water/oil resistant treatments

All furniture supplied under this Price Agreement shall be free of any long- and/or short-chain per- and poly-fluorinated alkyl compounds and fluorinated polymers used as stain, water, or oil resistant treatments at or above 100 ppm by weight of the homogenous material.

IV. Antimicrobials

All furniture supplied under this Price Agreement shall be free of any added or built-in chemical antimicrobials. Antimicrobials added to raw materials for the sole purpose of preserving the product are exempt, with the exception of triclosan and triclocarban which are explicitly prohibited.

V. Polyvinyl Chloride (PVC)

All furniture supplied under this Price Agreement shall contain less than 1% (one percent) of polyvinyl chloride (PVC) by weight, excluding electrical components. Preference will be given to manufacturers that offer electrical components that are free of PVC.

Definitions

Flame retardant chemical: Any chemical or chemical compound for which a functional use is to resist or inhibit the spread of fire, including, but not limited to, halogenated, phosphorous-based, nitrogen-based, and nanoscale flame retardants; flame retardant chemicals listed as "designated chemicals" pursuant to California Health and Safety Code Section 105440; or any chemical or chemical compound for which "flame retardant" appears on the substance Safety Data Sheet (SDS) pursuant to Section 1910.1200(g) of Title 29 of the Code of Federal Regulations.

Component: The separate constituent parts of furniture, including, but not limited to, cover fabrics, barrier materials, resilient filling materials, decking materials, and plastic parts.

Halogenated flame retardant chemical (also known as organohalogen flame retardant chemical): Any chemical or chemical compound containing chlorine or bromine bonded to carbon for which a functional use is to resist or inhibit the spread of fire. This includes any chemical or chemical compound containing chlorine or bromine bonded to carbon for which "flame retardant" appears on the substance Safety Data Sheet (SDS) pursuant to Section 1910.1200(g) of Title 29 of the Code of Federal Regulations.

Volatile Organic Compounds (VOCs): Carbon compounds emitted as gases from certain solids and liquids. VOCs include a variety of chemicals, including formaldehyde.

Formaldehyde: A colorless, flammable gas at room temperature, used to produce resins for composite wood products (e.g., plywood, particle board, medium density fiberboard), as an intermediate in the synthesis of other chemicals, and in some fabrics.

Per- and Poly-Fluoroalkyl Substances (PFASs) (often referred to as PFCs): A category of compounds that includes long- and short-chain per- and poly-fluorinated alkyl compounds and fluorinated polymers. PFASs include any compound that meets any one of the following definitions:

- **Perfluoroalkyl substances:** Compounds for which all hydrogen atoms on all carbon atoms (except for carbons associated with functional groups) have been replaced by fluorine atoms.
- **Polyfluoroalkyl substances**: Compounds for which all hydrogen atoms on at least one, but not all, carbon atoms have been replaced by fluorine atoms.
- **Fluoropolymers**: Carbon-only polymer backbone with fluorine atoms directly bound to the polymer backbone.
- **Perfluoropolyethers:** Carbon and oxygen polymer backbone with fluorine atoms directly bound to carbon atoms.
- **Side-chain fluorinated polymers:** Variable composition non-fluorinated polymer backbone with fluorinated side chains.

PVC: Polyvinyl chloride (PVC), or vinyl, is a synthetic thermoplastic material made by polymerizing vinyl chloride. The properties of the material depend on the additives, including plasticizers.

Verification of compliance: A formal declaration stating that the product supplied does not contain the targeted chemical above the stated threshold. The declaration must be written, signed, and dated by the manufacturer on the manufacturer's letterhead. Additional verification may include:

- laboratory testing data from an accredited lab, verifying compliance; or
- complete information in the Health Product Declaration on product content related to these chemicals, verifying compliance.

For more information, please contact Judy Levin (judy@ceh.org) from Center for Environmental Health or Rachel Gibson (rgibson@hcwh.org) and Tracey Easthope (tracey@ecocenter.org) from Health Care Without Harm.