StopWaste. Org Headquarters
Facility Maintenance and Renovations Policy

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Objective

Property management at this building is committed to maintaining a clean, healthy and productive work environment by reducing the environmental harms associated with the materials purchased, installed, and disposed of during maintenance, upgrade, and renovation. This policy outlines StopWaste.Org's green building preferences in purchasing, construction waste management and indoor air quality whenever the building undergoes maintenance and/or renovation.

Scope

This policy outlines facility maintenance purchasing, construction waste management and indoor air quality. Facility maintenance and renovation applies to the building products and waste that are produced on an infrequent basis during operations of building, including replacement of unusable items (like stained carpet or damaged furniture) and renovations (like tenant fit-outs or lobby upgrades).

I. Environmentally Preferable Purchasing

Responsible Parties

- Property Manager
- Architect (TBD for future work)
- Janitorial or Maintenance staff, as applicable, for minor maintenance and/or renovations.
- Designer or General Contractor responsible for product selection and specification.

Scope

Products and materials covered under the policy including base building elements, furniture and furnishings as well as components and parts needed to maintain them.

- Building Components and Structures (Wall studs, insulation, doors, windows)
- Panels and attached finishes (ceiling panels, trim, drywall)
- Carpet and other flooring material (linoleum, tile, sealed concrete)
- Adhesives, sealants, paints and coatings

- Furniture, cubicle components, cabinetry

Fixtures, equipment, MEP components and specialty items such as elevators are excluded.

Intent

To ensure a consistent approach to material selection, contributing to an overall reduction in environmental harm and encouraging production of materials in a more environmentally preferable way.

Requirements

Achieve sustainable purchases of 50% or more by cost of the total purchases for facility alterations and additions. Achieve 75% % or more by cost of the total purchases for furnishings and furniture.

Implementation

Purchases of products, materials, furniture and furnishings must meet at least one of the following criteria: :

- **Recycled content.** Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content.
- **Wood products.** Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent.
- **Bio-based materials.** Bio-based products must meet the Sustainable Agriculture Network's Sustainable Agriculture Standard. Bio-based raw materials must be tested using ASTM Test Method D6866 and be legally harvested, as defined by the exporting and receiving country. Exclude hide products, such as leather and other animal skin material.
- **Materials reuse.** Reuse includes salvaged, refurbished, or reused products.
- **Extended producer responsibility.** Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. Products valued at 50% of their cost.
- **GreenScreen v1.2 Benchmark.** Products that have fully inventoried chemical ingredients to 100 ppm that have no Benchmark 1 hazards.
    - If any ingredients are assessed with the GreenScreen List Translator, value these products at 100% of cost.
    - If all ingredients are have undergone a full GreenScreen Assessment, value these products at 150% of cost.

- **Cradle to Cradle Certified.** End use products are certified Cradle to Cradle. Products will be valued as follows:
    - Cradle to Cradle v2 Gold: 100% of cost
    - Cradle to Cradle v2 Platinum: 150% of cost
    - Cradle to Cradle v3 Silver: 100% of cost
    - Cradle to Cradle v3 Gold or Platinum: 150% of cost
- **International Alternative Compliance Path** – REACH Optimization. End use products and materials *manufactured outside of the USA* that do not contain substances that meet REACH criteria for substances of very high concern. If the product contains no ingredients listed on the REACH Authorization or Candidate list, value at 100% of cost.
- **Low emissions of volatile organic compounds.** The following products must either be inherently nonemitting or be tested and determined compliant in accordance with California Department of Public Health Standard Method V1.1–2010, using the applicable exposure scenario. The default scenario is the private office scenario; classroom furniture may use the school classroom scenario. Both first-party and third-party statements of product compliance must follow the guidelines in CDPH SM V1.1–2010, Section 8. Organizations that certify manufacturers' claims must be accredited under ISO Guide 65. Laboratories that conduct the tests must be accredited under ISO/IEC 17025 for the test methods they use and must follow the CDPH standard method.
    - thermal and acoustic insulation
    - flooring materials and finishes
    - ceiling materials and finishes
    - wall materials and finishes

The following additional criteria qualify for the purchase of products and materials (but not furniture and furnishings):

- **VOC content requirements for wet-applied products.** In addition to meeting the general requirements for VOC emissions (above), on-site wet-applied products must not contain excessive levels of VOCs, for the health of the installers and other tradesworkers who are exposed to these products. To demonstrate compliance, a product or layer must meet the following requirements, as applicable. Disclosure of VOC content must be made by the manufacturer. Any testing must follow the test method specified in the applicable regulation.
    - All paints and coatings wet-applied on site must meet the applicable VOC limits of the California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011.
    - All adhesives and sealants wet-applied on site must meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.

The provisions of SCAQMD Rule 1168 do not apply to adhesives and sealants subject to state or federal consumer product VOC regulations.
  - If the applicable regulation requires subtraction of exempt compounds, any content of intentionally added exempt compounds larger than 1% weight by mass (total exempt compounds) must be disclosed.
  - If a product cannot reasonably be tested as specified above, testing of VOC content must comply with ASTM D2369-10; ISO 11890, part 1; ASTM D6886-03; or ISO 11890-2.
  - For projects in North America, methylene chloride and perchloroethylene may not be intentionally added in paints, coatings, adhesives, or sealants.
- **Low emissions of formaldehyde.** Built-in cabinetry and architectural millwork containing composite woods must be constructed from materials documented to have low formaldehyde emissions that meet the California Air Resources Board requirements for ultra-low-emitting formaldehyde (ULEF) resins or no-added formaldehyde based resins. Salvaged and reused architectural millwork more than one year old at the time of occupancy is considered compliant, provided it meets the requirements for any site-applied paints, coatings, adhesives, and sealants.

Measurement and Verification

- Provide a list of base building elements permanently or semi permanently attached to the building.
- Provide product specification sheets for each item used in the alteration
- Provide a list of costs per item. Materials and labor costs associated with installing items shall be reported separately on invoices.

II. Solid Waste Management

Responsible Parties

- Property Manager
- Waste Hauler responsible for handling the waste generated by the demolition and construction
- Demolition contractor responsible for the demolition of the project space,

Scope

Waste associated with maintenance and renovation of the facility include:

- Waste associated with replacement and routine replacement of base building elements
- Waste associated with any renovation project.

Intent

To divert construction and demolition debris from disposal to landfills and incineration facilities and redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites. Additionally, this policy promotes efficient use of materials, encourages reuse & recycling, and minimizes cost through avoided tipping fees and extra revenue by selling high-valued scrap materials.

Requirements

Divert 100% the following waste streams generated for any new construction and/or demolition on the site: concrete, asphalt, cardboard and clean wood. Additionally, divert at least 65% of remaining waste (by weight) generated by facility alterations and additions from disposal to landfills and incineration facilities. Mixed-materials sent to a construction/demolition mixed waste processing facility shall not include Alternative Daily Cover as diversion in the calculations.

Implementation

- Track and record all materials that leave the site as a result of the demolition. Photograph, weigh and estimate the value of materials that are generated by the process of demolition. Develop a system, which identifies the rate of diversion and ensures that materials are leaving the building by a method that is well controlled.
- Develop and adopt a waste management strategy for all construction projects on site. This strategy should address the reuse and/or recycling of all building component waste generated during the project (cardboard, concrete, brick, demolition debris, lumber, plastics, glass, gypsum, etc.) Materials left in place during the alteration are not considered.
- Identify deconstruction, reuse, and salvage opportunities, recycling processors, and potential markets for salvaged materials. Consider allowing private salvaging companies access to the site prior to demolition.
- Source reduction on the job site should be an integral part of the strategy to reduce waste. Factors that contribute to waste include packaging, improper storage, ordering errors, over ordering, poor planning, breakage, etc.

- Designate a collection area for construction and demolition waste. Train workers in recycling protocols, label containers effectively, use appropriate languages, and institute a reporting process, which identifies issues with compliance to the policy.

Measurement and Verification

- Measure all waste generated by weight
- Provide weight tickets from loads to the property manager
- Provide a list of the major components of the waste stream and the mode of diversion (e.g. Salvage, recycled, composted, donated or reused on site)
- Provide a narrative describing the quality control program that waste is leaving the grounds in a controlled, monitored channel of the waste stream

III. Indoor Air Quality Best Management Practices

Responsible Party

- Mechanical systems contractor
- Property Manager

Scope

Applies to the protection of Indoor Air Quality (IAQ) and the flush-out of project spaces after construction ends and all interior finishes are installed and before occupancy begins.

Intent

To prevent indoor air quality (IAQ) contamination resulting from any construction or renovation projects while helping sustain the comfort and well being of construction workers and building occupants and minimizing potential problems with building equipment and occupant comfort.

Requirements

The procedures can be summarized as follows and identified as an "indoor air quality (IAQ) management plan for construction and occupancy phases":

- **Communication:** Prior to project commencement, building occupants are informed

of the project phases and tasks, safety and health precautions that will be implemented, and property management points of contact for further information. Project updates are disseminated using email or signs throughout the project. Employees scheduled to move into a new building or newly renovated space will receive a communication concerning the odor potential, the proactive measures that have been taken to minimize exposure, and the mechanism for reporting concerns. In addition, a similar notice will be provided with the move package material left on their desk by the movers.

- **SMACNA:** During construction, meet or exceed the recommended design approaches of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) "IAQ guidelines for occupied buildings under construction," 2nd edition (2007), ANSI/SMACNA 008-2008, Chapter 3 (See Appendix A).

- **Chemical and Building Material Approval:** All new chemicals introduced in construction operations should be reviewed by property management prior to use. Where possible, products specified shall provide HPDs or other chemical ingredient disclosures as per LEED version 4 standards.

- **Material Protection:** In addition to materials selected, existing on-site installed materials will be protected from moisture damage. All absorptive materials will be protected from moisture damage, including those installed or stored on-site.

- **Isolation of Construction Zone:** Ventilation, physical barriers (e.g., plastic sheeting, walls, duct caps), shift work and airing out of materials (e.g., carpet) prior to installation are all methods used to isolate the construction zone from the occupants.

- **Flush Out:** There will be a Flush-out of the affected space after construction ends and all interior finishes have been installed. The flush-out procedure complies with the criteria listed in the LEED for Existing Buildings: Operations & Maintenance Rating System. The flush out must be done by supplying a total outdoor air volume of 14,000 cubic feet per square foot of floor area while maintaining an internal temperature of at least 60° F and maintaining a relative humidity no higher than 60% where cooling mechanisms are operated. The affected space may be occupied only after the delivery of at least 3,500 cubic feet of outdoor air per square foot of floor area and the space has been ventilated at a minimum rate of 0.30 cfm per square foot of outdoor air has been delivered to the space. The flush-out may continue during occupancy.

- **Filtration Media:** If air handlers must be used during construction, filtration media with MERV 8 must be used at each return air grille, as determined by ASHRAE 52.2, 2010, or as required by the California Green Building Standards Code (CALGReen)

2013. Replace all filtration media immediately prior to occupancy.

- **Upon Completion:** HVAC and lighting systems must be returned to the designed or modified sequence of operations.

Implementation

- Adopt an indoor air quality management plan, refer to the SMACNA standard
- Protect HVAC during demolition and construction from dust and odors during demolition and construction
- Specify finishes with a low or no toxicity. Review products for HPD or equivalent level of health hazard disclosures and assessment.
- Isolate spaces and Interrupt the pathway during construction an demolition
- Implement cleaning procedures during construction and demolition prior to occupancy to control contaminants
- Communicate with building occupants during construction or demolition to minimize disruption,
- Flush out the space, see "Requirements" above

Measurement and Verification

- Provide a copy of IAQ management plan intended for facility alterations and additions to all responsible parties

- Provide and label photos highlighting the IAQ management plan practices and identify the approach (where applicable):
    1. Protection of all absorptive materials from moisture damage, including those installed or stored onsite.

    2. Use of filtration media with MERV 8 ratings or higher (as determined by ASHRAE 52.2-2010 or as required by the California Green Building Standards Code (CALGReen) 2013) at each return air grille if air handlers must be used during construction.

    3. Replacement of all filtration media immediately prior to occupancy.

    4. Upon the completion of construction, return of HVAC and lighting systems to the designed or modified sequence of operations.

    5. Flush-out of the affected space after construction ends and all interior finishes have been installed.

- Provide documentation for the type of filtration used during construction and after

phase 1 of the flush out procedure

- Provide a copy of the flush-out procedures showing compliance with criteria listed above for all spaces that underwent alterations or additions. Provide date of flush-out.

- Describe in detail the preoccupancy and post-occupancy flush-out process. Include data regarding airflow, duration of flush-out, and any special considerations.

IV. Compliance Timeline

This policy must remain in effect going forward from its inception date, August 1, 2013. As alternative opportunities are identified to promote environmentally preferable purchases, improved waste diversion, and the improvement of indoor air quality procedures, they shall be assessed and implemented as needed.

Approval

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Patricia Cabrera, Administrative Services Director

VI. Appendix A

SMACNA IAQ Guidelines Chapter 3 - Referenced Standard