

Facility Maintenance and Renovation Policy

Summary

i. Scope.....	2
ii. Goals	2
iii. Roles and Responsibilities	2
Purchasing.....	3
SOURCE CONTROL	6
PATHWAY INTERRUPTION	6
HOUSEKEEPING.....	6
SCHEDULING	6
PRIOR TO OCCUPANCY	7
v. Performance Measurement and Schedule for Reassessment.....	7
vi. Quality Assurance/Quality Control Processes	7

Facility Maintenance and Renovation

i. Scope

This policy applies to any ongoing facility maintenance activities and any facility renovations that occur in the following UM6P buildings: Bâtiment d'Enseignement, Pôle Sport, Restaurant, Centre de recherche, Centre des congrés, Hébergements, Bâtiment administratif. This policy includes guidelines for purchasing materials related to these activities, disposing of waste generated from these activities, and managing indoor air quality during these activities.

The following materials are covered under this policy:

- Base building elements permanently or semi- permanently attached to the building (mechanical, electrical and plumbing components and specialty items such as elevators are excluded). Exclude fixtures and equipment, which are not considered base building elements
- Furniture and furnishings as well as the components and parts needed to maintain them

For the purposes of this policy, routine maintenance includes (not exclusively) painting, carpet replacement, and ceiling tile replacement. Renovations include fit-outs affecting more than one room, or large rooms such as the lobby or board room, and involve multiple elements, such as moving walls and electrical work, or replacing multiple different architectural finishes.

ii. Goals

<u>Component</u>	<u>Goal</u>	<u>Performance Measurement Unit</u>
Materials purchased for facility maintenance and renovations	50% of materials purchased will meet the sustainability criteria described below	cost
Furniture purchases	50% of furniture purchases will meet the sustainability criteria described below	cost
Waste disposal from facility maintenance	90% of waste will be diverted from landfills	Weight or volume
Waste disposal from facility renovations	90% of waste will be diverted from landfills	Weight or volume
IAQ best management practices	IAQ Best Management Practices will be implemented for 100% of renovation projects and 100% of maintenance activities	

iii. Roles and Responsibilities

The primary responsible party for this policy is Mr. Abdelillah HADEGUE, the General resources Manager. The responsible party is responsible for ensuring that this policy is executed and that any contracted vendors involved in facility maintenance and renovation activities are informed of and adhere to the procedures outlined in this policy. The General resources Manager is responsible for reviewing this policy for any significant changes on the interval specified in the quality assurance section. If at any time updates

are required to this policy, the responsible party will ensure that the appropriate individuals are informed of the updates.

Each major renovation project will have a renovation manager. The renovation manager is appointed by the Property Manager and is responsible for coordinating the various aspects of the renovation, including the purchasing and waste schedule, as well as adherence to the indoor air quality requirements.

iv. Standard Operating Procedures and Implementation Strategies

Purchasing

Materials purchased for use in facility maintenance and renovations, as well as furniture purchases, will meet at least one of the following criteria under Reporting, Optimization, and other attributes:

Reporting:

- Health Product Declaration. The end use product has a published, complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration open Standard.
- Cradle to Cradle Certified. Product is Cradle to Cradle Certified™ under standard version 3 or newer.
- Declare. The Declare label must indicate that all ingredients have been evaluated and disclosed down to 1000 ppm.
- ANSI/BIFMA e3 Furniture Sustainability Standard: Documentation from the assessor or scorecard from BIFMA must demonstrate the product earned at least 3 points under 7.5.1.3 Advanced Level in e3-2014 or 3 points under 7.4.1.3 Advanced Level in e3-2012.
- Product Lens certification
- Facts - NSF/ANSI 336. Sustainability Assessment for Commercial Furnishings Fabric at any certification level
- Global Green TAG PHD labels issued after January 1, 2020
- Environmental product declaration (EPD): Product has an environmental product declaration that conforms to ISO 14025, 14040, 14044, and EN 15804 or ISO 21930 and have at least a cradle to gate scope. The EPD can be either industry-wide (generic) EPD in which the manufacturer is explicitly recognized as the participant by the program operator, or a product specific Type III EPD.
- Optimization:
- GreenScreen VI.2 Benchmark. Product with fully inventoried chemical ingredients to 100 ppm with no Benchmark 1 hazards.
- Cradle to Cradle Certified: Product is Cradle to Cradle certified under standard version 3 or newer.
- EPD Optimization path: Product with Environmental Product Declarations (EPDs) that is thirdparty certified and demonstrates impact reduction below industry average in at least three of the following categories:
 - global warming potential (greenhouse gases), in CO₂e;
 - depletion of the stratospheric ozone layer, in kg CFC-II ;
 - acidification of land and water sources, in moles H⁺ or kg SO₂;

eutrophication, in kg nitrogen or kg phosphate; o formation of tropospheric ozone, in kg NOx, kg O3 eq, or kg ethene; and o depletion of nonrenewable energy resources, in MJ.

- Extended producer responsibility. The product manufacturer (producer) participates in an extended producer responsibility program or is directly responsible for extended producer responsibility.
- Wood products. The product is certified by the Forest Stewardship Council or USGBC-approved equivalent
- Materials reuse. Reuse includes salvaged, refurbished, or reused products.
- Recycled content. Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content, based on cost.
- Bio-based products. The Bio-based product meets the Sustainable Agriculture Network's Sustainable Agriculture Standard and the Bio-based raw materials are tested using ASTM Test Method D6866 and legally harvested, as defined by the exporting and receiving country. Excludes hide products, such as leather and other animal skin material

Furniture specific requirements:

- Furniture Emissions Evaluation : Product has been tested in accordance with ANSI/BIFMA Standard Method M7.1—2011 (R2016) and complies with ANSI/BIFMA e3-2011 Furniture Sustainability Standard 7.6.2. For classroom furniture, use the standard school classroom model in CDPH Standard Method VI .2. Salvaged and reused furniture more than one year old at the time of use is considered compliant, provided it meets the requirements for any site-applied paints, coatings, adhesives, and sealants.
- Any of the optimization related attributes above are applicable to furniture.

Other (facility maintenance and renovation materials only):

- Low Formaldehyde Composite wood. 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.
- Low emissions of volatile organic compounds for products other than furniture: Thermal and acoustic insulation, flooring materials and finishes, ceiling materials and finishes and wall materials and finishes must either be inherently nonemitting or be tested and determined compliant in accordance with California Department of Public Health Standard Method VI .2—2017, using the applicable exposure scenario and complies with testing criteria and VOC limits for the CDPH standard method. Statement of product compliance must include appropriate exposure scenarios, range of TVOCs and follow CDPH guidelines. For products for school classrooms, the testing should be performed using the classroom scenario, for all other products use the default private office scenario. Both first-party and third-party statements of product compliance must follow the guidelines in CDPH SM VI. 2—2017, 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.

3/6

- VOC content requirements for wet-applied products. In addition to meeting the general requirements for volatile organic compounds (above), on-site wet-applied products must not contain excessive levels of VOCs, for the health of the installers and other trades workers 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.
- Zero Waste Manufacturing. Products are made from manufacturers that have achieved certification of their waste minimization during operations. Acceptable certifications include thirdparty verified TRUE (zero waste certification) and UL Standard 2799.

Waste Management

For each facility renovation project, the Property Manager will coordinate with the renovation manager and contracted vendors to discuss the scope of the renovation. The scope of the renovation must be determined and the materials to be used and discarded during the renovation must be identified. Packaging will be a consideration in the materials that will be discarded. The weight or approximate volume of each type of waste will be broken out. Projects can use either weight or volume, but must be consistent throughout. Separate categories may include cardboard, wood products and cabinetry, drywall, tile, etc.

From this material flow, the five largest waste categories will be determined. The renovation manager will coordinate proper waste disposal and landfill diversion for these waste categories. This will involve contacting the appropriate vendors, scheduling haul dates, and ensuring properly sized storage areas for the construction waste. If necessary, a separate secured storage area will be secured for hazardous waste, such as paint.

Once the waste disposal has been coordinated, the renovation manager will write waste disposal instructions for each waste category and will distribute to the appropriate vendors.

For facility maintenance waste, the facility manager will identify locations for safely storing the waste. Bins will be provided to properly sort the waste for recycling and landfill, as appropriate.

All waste from facility renovations and maintenance will be handled, stored, and sorted separately from ongoing waste.

Indoor Air Quality Procedures for Maintenance and Renovations

The recommended control measures 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 will be implemented for facility renovations and maintenance activities that occur in the project. The General resources Manager is ultimately responsible for ensuring that these control measures are implemented, as applicable:

HVAC PROTECTION:

As much as possible, the HVAC systems serving the affected area will not be used during construction. All duct equipment openings will be sealed with plastic. In the event that the HVAC systems must be operated, the return side of the systems will be protected and closed off if possible. Temporary filters will be installed at each return air grille and return or transfer duct inlet opening such that there is no bypass around the filtration media. The filters must have a minimum efficiency reporting value (MERV) of 8 or better, as determined by ASHRAE 52.2—2007, with errata (or equivalent filtration media class of F5 or higher, as defined by CEN Standard EN 779—2002, Particulate Air Filters for General Ventilation, Determination of the Filtration Performance), All filtration media will be replaced immediately prior to occupancy.

SOURCE CONTROL

Materials meeting the sustainability criteria prescribed above will be used as much as possible, particularly for paints, carpet, composite wood, adhesives, and sealants that have the potential for significant emissions. All containers for paints, adhesives and sealants will be stored in a separate, secure location at times when construction is not active. During construction, lids will be kept on all containers as much as possible.

PATHWAY INTERRUPTION

Construction areas will be isolated to prevent contaminating non-construction areas. This will be done by sealing off the work areas with plastic and de-pressurizing the construction area. As much as possible, with weather permitting, the construction area will be ventilated using 100% outside air to exhaust contaminated air directly to the outside. Dust guards and collectors will be used on saws, sanders, and other tools.

HOUSEKEEPING

All porous or absorptive building materials, such as dry wall and ceiling tiles, will be protected from exposure to moisture and will be stored in a separate, clean area prior to installation. The entrances to the construction area will have temporary walk-off mats to collect particulates. The construction area will be sealed off using plastic. During construction, daily housekeeping will include use of vacuum cleaners with high-efficiency particulate filters, and sweeping compounds or wetting agents for dust control when sweeping. Prior to building material installation, the installation area will be cleaned to remove dust and debris. Prior to occupancy, the construction area will be vacuumed using high efficiency particulate filters.

SCHEDULING

As much as possible, the use of paints, sealants, and adhesives will be used after normal working hours to prevent building occupant exposure to off-gassing. All absorptive-finish materials will be installed after wet-applied materials have cured. The construction schedule will include time for a building flush out prior to occupancy. See below for flush out details.

PRIOR TO OCCUPANCY

The General resources Manager will coordinate with the renovation manager and contracted vendors to develop a plan for either conducting a flush-out or conducting air quality testing, as applicable, after construction ends and all interior finishes are installed, but before occupancy.

- Flush-out: If it is determined that a flush-out will be conducted, the flush out will begin after all construction work, including punch-list items, has been completed and furniture and fixtures have been installed. Finalize all cleaning, complete the final testing and balancing of HVAC systems, and make sure the HVAC control is functional. 14,000 cubic feet per square foot of floor area will be delivered to the space, with an internal temperature of at least 60 degrees Fahrenheit and a relative humidity of no more than 60% where cooling mechanisms are operated. The area will not be occupied until after at least 3,500 cubic feet of outdoor air per square foot has been provided to the space. After occupancy, the outside air will be ventilated at a minimum rate of 0.30 cfm per square foot.
- Indoor air quality testing: If it is determined that indoor air quality testing will be conducted, air quality will be tested when the HVAC system is operating under normal conditions with minimum outdoor airflow rates, so that the air tested will be as similar as possible to what the occupants will be breathing. The protocols for IAQ testing in the referenced publication, the U.S. EPA's Compendium of Methods for the Determination of Air Pollutants in Indoor Air will be used. Testing locations will be selected with the least ventilation but the greatest concentration of VOCs and other contaminants. Exact locations will be recorded. If a test sample exceeds the maximum concentration level, the space will be flushed out using the procedure above and indoor air quality will subsequently be retested in the same location.

v. Performance Measurement and Schedule for Reassessment

6/6

After each renovation or quarterly (whichever comes first), the responsible party and renovation manager will evaluate whether the procedures described in this policy have been met. Purchasing and waste logs will be evaluated against sustainability criteria and project goals. If changes are necessary to the policy, the responsible party and renovation manager will determine how best to change the policy procedures to meet the specified goals for the next renovation and/or for ongoing maintenance activities. Indoor Air Quality practices will also be reviewed to ensure that any adjustments to the policy are made.

vi. Quality Assurance/Quality Control Processes

During renovations, the renovation manager, with help from the General resources Manager as necessary, will oversee the work on the construction site to ensure that the procedures are being followed as required. Manufacturer documentation and purchasing data will be retained to ensure that sustainable purchasing goals are being met, and waste reports will be retained to ensure that recycling goals are being met. Weekly construction meetings will include an agenda item to ensure that the Indoor Air Quality practices outlined in this policy are being implemented.

All maintenance personnel responsible for building repairs will review this policy annually to ensure that they implement the Indoor Air Quality practices outlined in this policy. Maintenance purchases will be tracked on a quarterly basis to ensure that sustainable purchasing goals are being met. Maintenance waste will be tracked on a monthly basis to ensure that recycling goals are being met.

~~UNIVERSITÉ MOHAMED EL POLYTECHNIQUE~~
~~Lot 660~~ **Abdelillah HADEGUE**
Département des Moyens Généraux

Le 09/05/23