



Sustainable purchasing of cleaning equipment

EQ3.4 | Possible point

Glossary

Intent

To reduce the exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particulate contaminants that adversely affect air quality, human health, building finishes, building systems and the environment, from powered cleaning equipment.

Reduce exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particle contaminants, which adversely impact air quality, health, building finishes, building systems, and the environment.

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To reduce chemical, biological, and particulate contaminants from powered cleaning equipment.

Requirements

Implement a program for the use of janitorial equipment that reduces building contaminants and minimizes environmental impact. The cleaning equipment program must require the following:

- Vacuum cleaners are certified by the Carpet and Rug Institute "Green Label" Testing Program for vacuum cleaners and operate with a sound level of less than 70dBA.
- Carpet extraction equipment used for restorative deep cleaning is certified by the Carpet and Rug Institute's "Seal of Approval" Testing Program for deep-cleaning extractors.
- Powered floor maintenance equipment, including electric and battery-powered floor buffers and burnishers, is equipped with vacuums, guards and/or other devices for capturing fine particulates and operates with a sound level of less than 70dBA.
- Propane-powered floor equipment has high-efficiency, low-emissions engines with catalytic converters and mufflers that meet the California Air Resources Board (CARB) or Environmental Protection Agency (EPA) standards for the specific engine size and operate with a sound level of less than 90dBA.
- Automated scrubbing machines are equipped with variable-speed feed pumps and on-board chemical metering to optimize the use of cleaning fluids. Alternatively, the scrubbing machines use only tap water with no added cleaning products.
- Battery-powered equipment is equipped with environmentally preferable gel batteries.
- Powered equipment is ergonomically designed to minimize vibration, noise and user fatigue.
- Equipment is designed with safeguards, such as rollers or rubber bumpers, to reduce potential damage to building surfaces.

Keep a log for all powered cleaning equipment to document the date of equipment purchase and all repair and maintenance activities and include vendor specification sheets for each type of equipment in use.

Utilize over the performance period entryway systems (grills, grates, mats etc.) to reduce the amount of dirt, dust, pollen and other particles entering the building at all entryways, and develop the associated cleaning strategies to maintain those entryway systems, as well as the exterior walkways.

Have in place over the performance period structural deck-to-deck partitions with separate outside exhausting, no air re-circulation and negative pressure in all janitorial closets. Provide hot and cold water and drains plumbed for appropriate disposal of liquid waste in areas where janitorial equipment and chemicals are stored and/or water and cleaning chemical concentrate mixing occurs.

Have in place over the performance period a low-impact environmental cleaning policy addressing:

- Sustainable cleaning systems.
- Use of sustainable cleaning products.

- Use of chemical concentrates and appropriate dilution systems.
- Proper training of maintenance personnel in the hazards, use, maintenance and disposal of cleaning chemicals, dispensing equipment and packaging.
- Use of hand soaps that do not contain antimicrobial agents (other than as a preservative system), except where required by health codes and other regulations (i.e., food service and health care requirements).
- Use of cleaning equipment that reduces impacts on IAQ.
- Provide a copy of the low environmental impact pest management policy adopted by the organization:
 - The plan shall promote safer alternatives to chemical pesticides while preventing economic and health damage caused by pests. The plan shall implement the use of IPM techniques to reduce the need for reliance on chemical pesticides. When pesticides may be necessary, the plan shall ensure that clear and accurate notification concerning the use of pesticides be made available so that measures may be taken to prevent and address pest problems effectively without endangering occupants, janitorial workers or visitors.
 - The plan should address:
 - Integrated methods.
 - Site or pest inspections.
 - Pest population monitoring.
 - An evaluation of the need for pest control.
 - One or more pest control methods, including sanitation, structural repairs, mechanical and living biological controls, other non-chemical methods and, if nontoxic options are unreasonable and have been exhausted, a least toxic pesticide.
 - The plan shall include a communication strategy to provide notification of the IPM system. This shall include information and notice to tenants or directly to occupants in an owner-occupied building. The notice shall include a description of the integrated pest management system and a list of all pesticides, including any least toxic pesticide that may be used in the building as part of the integrated pest management system; the name, address, and telephone number of the contact person of the building; and a statement that the contact person maintains the product label and material safety data sheet (MSDS) of each pesticide used by the building, that the label or MSDS is available for review upon request, and that the contact person is available for information and comment.
 - The communications strategy shall address "Universal Notification," which requires notification not less than 72 hours before a pesticide, other than a least toxic pesticide, is applied in a building or on surrounding grounds that the building maintains.
 - The plan shall address under what circumstances an emergency application of pesticides in a building or on surrounding grounds being maintained by the building can be conducted without complying with the earlier provisions. In addition, address notification strategies to ensure that occupants and janitorial workers are notified 24 hours in advance of the pesticide application.
- Provide documentation that the Low Environmental Impact Pest Management Policy has been followed during the performance period.

Implement a policy for the use of janitorial equipment that maximizes effective reduction of building contaminants with minimum environmental impact.

Cleaning equipment policy needs to specify that:

- Vacuum cleaners meet the requirements of the Carpet & Rug Institute "Green Label" Testing Program- Vacuum Cleaner Criteria and are capable of capturing 96% of particulates 0.3 microns in size and operate with a sound level less than 70dBA.
- Hot water extraction equipment for deep cleaning carpets is capable of removing sufficient moisture such that carpets can dry in less than 24 hours.
- Powered maintenance equipment including floor buffers, burnishers and automatic scrubbers is equipped with vacuums, guards and/or other devices for capturing fine particulates, and shall operate with a sound level less than 70dBA.
- Propane-powered floor equipment has high-efficiency, low-emissions engines.
- Automated scrubbing machines are equipped with variable-speed feed pumps to optimize the use of cleaning fluids.
- Battery-powered equipment is equipped with environmentally preferable gel batteries.
- Where appropriate, active micro fiber technology is used to reduce cleaning chemical consumption and prolong life of disposable scrubbing pads.
- Powered equipment is ergonomically designed to minimize vibration, noise and user fatigue.
- Equipment has rubber bumpers to reduce potential damage to building surfaces.
- A log will be kept for all powered housekeeping equipment to document the date of equipment purchase and all repair and maintenance activities and include vendor cut sheets for each type of equipment in use in the logbook.
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ESTABLISHMENT

Create an inventory of existing interior and exterior equipment, including what is brought on site by vendors. At least 40% of all powered janitorial equipment (purchased, leased, or used by contractors) must meet the following criteria. For existing equipment that does not meet the criteria, develop a phase-out plan for its replacement with environmentally preferable products at the end of its useful life.

All powered equipment must have the following features:

- safeguards, such as rollers or rubber bumpers, to avoid damage to building surfaces;
- ergonomic design to minimize vibration, noise, and user fatigue, as reported in the user manual in accordance with ISO 5349-1 for arm vibrations, ISO 2631-1 for vibration to the whole body, and ISO 11201 for sound pressure at operator's ear; and
- as applicable, environmentally preferable batteries (e.g., gel, absorbent glass mat, lithium-ion) except in applications requiring deep discharge and heavy loads where performance or battery life is reduced by the use of sealed batteries.

Vacuum cleaners must be certified by the Carpet and Rug Institute Seal of Approval/Green Label Vacuum Program and operate with a maximum sound level of 70 dBA or less in accordance with ISO 11201.

Carpet extraction equipment, for restorative deep cleaning, must be certified by the Carpet and Rug Institute's Seal of Approval Deep Cleaning Extractors and Seal of Approval Deep Cleaning Systems program.

Powered floor maintenance equipment must have vacuums, guards, or other devices for capturing fine particles, and must operate with a maximum level of 70 dBA, in accordance with ISO 11201

Propane-powered floor equipment must have high-efficiency, low-emissions engines with catalytic converters and mufflers that meet the California Air Resources Board or EPA standards for the specific engine size and operate with a sound level of 90 dBA or less, in accordance with ISO 11201.

Automated scrubbing machines must be equipped with variable-speed feed pumps and either (1) on-board chemical metering to optimize the use of cleaning fluids or (2) dilution control systems for chemical refilling. Alternatively, scrubbing machines may use tap water only, with no added cleaning products.

PERFORMANCE

At least 40% of all powered janitorial equipment (purchased, leased, or used by contractors) must meet the above criteria. For existing equipment that does not meet the criteria, develop a phase-out plan for its replacement with environmentally preferable products at the end of its useful life.