Healthy Green Schools & Colleges™ ~~Pilot~~ Standard for K-12 School Districts and Higher Education Institutions

DRAFT FOR 3RD PUBLIC COMMENT
August 16, 2022

Healthy Green Schools & Colleges is a partnership between Green Seal ®
and Healthy Schools Campaign.

Healthy Green Schools & Colleges Standard

Foreword

The COVID-19 pandemic has made creating healthy school environments an urgent national priority and brought to light the serious under-investment in school facilities nationwide. However, even before the pandemic, nearly half of U.S. schools reported indoor air quality problems that put the health of students and staff at risk.

Unhealthy indoor air, inadequate ventilation, and chemical exposure from cleaning and maintenance routines continue to present systemic challenges in school districts. On top of health concerns, these issues are linked to poor concentration and test performance in students, adding preventable barriers to achievement.

School facility management professionals are vital stewards of school environments, making daily decisions that affect the health, safety and sustainability of places where students spend more than 1,000 hours a year. While they are experts at managing costs, these professionals often lack proper funding and resources for the essential work they do caring for students and staff.

Healthy Schools Campaign (HSC) and Green Seal have drafted the first national standard for healthy and sustainable school facilities at the district level, prioritizing measures that make a significant difference in indoor air quality without major capital investments.

Scope and Eligibility

The Healthy Green Schools & Colleges Standard establishes criteria for K-12 school districts and higher education institutions.

K-12 Educational Institutions eligible for certification are defined as one of the following:

- a traditional public K-12 school district in its entirety, including all school buildings and students served by that district under a Board of Education (or equivalent governing body),
- charter schools, with all schools under the decision making and budget authority of the governing body included in the certification process, or
- private schools, with all schools under the decision making and budget authority of the governing body included in the certification process.

Higher Education Institutions eligible for certification are defined as one of the following:

- a college or university in its entirety, including all departments, business units, buildings, and students,
- a campus of physically contiguous grounds, or
- an independent operating unit within the higher education institution that has budget, planning, and decision making authority (e.g., dining services, residence services, etc.).

Certification Tiers

This standard allows three different levels of certification recognition for an institution: Bronze, Silver, and Gold. Institutions must meet all required criteria in the standard and can achieve their target level of certification by pursuing any combination of optional criteria to meet the certification tiers. Required criteria have the designation (Required) within the title.

Levels of Certification – Point Totals

Certification Level	Points
Bronze	60-74
Silver	75-84
Gold	85+

Seeking Feedback

We develop standards through an open and transparent process that includes extensive stakeholder outreach and opportunities for public input. A third public comment period is now open to solicit comments on new changes proposed in tracked changes throughout this document. Please submit comments to standard@healthygreenschools.org by 11:59PM ET on August 20, 2022.

Section 1: Getting Started

1.1 Define a Performance Period (Required)

Establish a performance period for each required and optional criteria pursued in the HGSC standard.

For each criteria, the minimum performance period must be no less than 3 months and the maximum shall be no more than 12 months. All performance periods must overlap and conclude within 30 days of each other.

1.2 Determine a~~n Equity Based~~ Representative Sample (Required)

For K-12 Institutions
Determine an Equity-Based Representative Sample of schools to document compliance with the criteria in the Healthy Green Schools & Colleges Standard by following the process outlined in Appendix 2 - Equity-Based Representative Sample.

For Higher Education Institutions
Determine a representative sample of campus buildings to document compliance with the criteria in the Healthy Green Schools & Colleges Standard by completing the following steps:

1. List the buildings where students are regular occupants, by type: dormitory, lecture hall, dining hall, gymnasium, etc., within the scope of the institution.
2. Calculate the percentage of each building type within the institution.

~~1.~~ The representative sample must include at least one building from each building type within the institution. For institutions with 35 or more buildings, the representative sample must include at least 10 percent of buildings, with a distribution similar to the percentage of building types within the institution.

1.3 Plan Development (Required)

Create a written, institution-level Facility Operations and Maintenance Plan, soliciting input from representatives of, at minimum, the following stakeholder groups:

- custodial,
- maintenance,
- grounds,
- handler for contracted services,
- site-level administrator,
- ~~employee and/or teacher union representatives, and~~

- ~~Equity-Based Representative Sample (Appendix 2) of students or parents.~~ instructor or teacher representative, and
- at least three students (for K-12, representatives must be selected using an Equity-Based Representative Sample of students or parents).

The Facility Operations and Maintenance Plan must include the following:

- standard operating procedures related to healthy, safe, sustainable, and equitable operations and maintenance across the institution,
- schedules for routine and periodic cleaning operations, and
- alternative procedures or schedules in specific buildings across the institution.

Convene stakeholders to review the Facility Operations and Maintenance Plan at least annually, and during the performance period. ~~Include~~ Document attempts to include representatives from, at minimum, the following stakeholder groups:

- custodial,
- maintenance,
- grounds,
- handler for contracted services,
- site level administrator,
- ~~employee and/or teacher union~~ instructor or teacher representative~~s~~, and
- at least three students (for K-12, representatives must be selected using an Equity-Based Representative Sample of students or parents).

~~The following stakeholders are encouraged but not required to participate:~~

- ~~food service representative,~~
- ~~transportation representative,~~
- ~~school nurse,~~
- ~~school counselor,~~
- ~~parent Teacher Association or school community council, and~~
- ~~custodial supplier representative.~~

Maintain records of the timeframe in which the Facility Operations and Maintenance Plan review was conducted, all comments received during the Facility Operations and Maintenance Plan review, and the action(s) taken to address each comment.

1.4 Onboarding Training for Cleaning Personnel (Required)

1.4.1 Training Content

Within one year of hiring, provide cleaning personnel 12 or more hours of training that covers, at minimum, the following topics:

- Healthy Green Schools & Colleges Standard,
- safe and effective handling and use of all cleaning products,
- cleaning, sanitizing, and disinfecting procedures to promote health and safety and minimize the spread of infectious disease,
- use and maintenance of cleaning equipment

- safety training (See Appendix 3 - Cleaning Personnel Training Curriculum)
- site specific training (See Appendix 3 - Cleaning Personnel Training Curriculum)
- all procedures needed to comply with this standard
- communication with building occupants on the rationale for procedures, and
- how their work affects health, safety, sustainability, and equity in their building and across the institution.

1.4.2 Records Maintenance

Maintain records for each staff member of all onboarding training, including the following:

- topics addressed in the training,
- general outline of information covered,
- name and qualifications of the trainer,
- dates and duration of the training, and
- requests for training accommodations (e.g., materials in a non-English language, transcripts from presentations or recordings) and the accommodations provided.

Retain the records for all training for the duration of each staff member's employment, and for one year after departure.

1.4.3 Skills Testing

Within one month of the conclusion of onboarding training, use a simple pass-fail test or hands-on check with equipment to ensure that cleaning personnel understand the training and are implementing the skills taught. Maintain a record of skills testing alongside training records.

1.4.4 Training Materials Review

During the performance period and at least once every two years, conduct an evaluation of materials to check for relevance and appropriateness. Update materials as needed.

1.5 Communications (Required)

1.5.1 Management

Establish an ongoing communications channel for facilities and maintenance staff to make comments and suggestions regarding, at minimum, the following topics:

- efficacy and safety of cleaning products, maintenance equipment, and policies and procedures,
- construction and building improvements,
- building and system maintenance issues,
- presence of pests,
- coordination with pest control, and
- interference with cleaning or recycling operations.

In the Facility Operations and Maintenance Plan, provide standard operating procedures for this communications channel to be implemented in all buildings.

1.5.2 Faculty, Staff, and Students (Building Occupants)

Make the Facility Operations and Maintenance Plan, including building-specific standard operating procedures, publicly available and by hard copy in each building.

1.5.3 Vulnerable Populations

Provide an ongoing opportunity for building occupants to identify themselves as a member of a vulnerable population. For each building in the institution, document situations where maintenance and cleaning operations could adversely affect vulnerable building occupants. Ensure that communications regarding maintenance and cleaning operations that could present adverse impacts to vulnerable populations are delivered to all building occupants. Communicate no less than 24 hours in advance about a cleaning operation that could adversely affect a vulnerable population. Assess and document trends in equity in terms of timeliness and completeness for communications in buildings across the institution, using an Equity Based Representative Sample.

Section 2: Procurement of Facility Operations and Maintenance Products

Purchase *environmentally preferable products*, as described in Sections 2.1–2.3. Products must be purchased during the *performance period* to contribute toward meeting the criteria.

Where federal, state, local, or tribal regulations also apply, comply with the most stringent requirement.

2.1 Consumable Goods (8 points)

At the institution level, purchase environmentally preferable consumable goods during the *performance period*. Points are awarded according to the following table.

Points for Green Consumable Goods

Percentage of Purchases (by Cost)	Points
25	Required for all projects
50	2
70	4
85+	8

Consumable goods include the following categories:

- general-purpose cleaning products,
- *sanitizing* and *disinfecting* products,
- specialty cleaning products,
- hand soaps and alcohol-based hand *sanitizers*,
- laundry care products,
- sanitary paper products,
- printing and writing paper,
- disposable menstrual products,
- trash, recycling, and composting can liners,
- paints, coatings, stains, and sealers, and
- ice melt and snow and ice removal products.

For all categories, purchase products that meet the criteria listed in the following table. See Appendix 3, Approved Third-Party Certifications for Consumable Goods Purchasing, for other approved programs.

Environmentally Preferable Purchasing Criteria for Consumable Goods

Product	Criteria
General-purpose cleaning products, including	Select products certified to Green Seal or

• all-purpose cleaners and degreasers • bathroom cleaners and deodorizers (includes hard surface, toilet, and urinal) • glass, mirror, and window cleaners • carpet, rug, and upholstery cleaners (includes routine and spot-cleaning products) • floor cleaners, strippers, sealers, and finishes	other approved program
Sanitizing and *disinfecting* products	Select products that meet all requirements in 2.1.1
Specialty cleaning products, including • metal polishes • furniture polishes • graffiti removers • gum removers • lime and scale removers • mildew removers • drain and grease trap additives • odor removal • dish soap	Select products certified to Green Seal or other approved program
Hand soaps and alcohol-based hand *sanitizing* products	Select products certified to Green Seal or other approved program
Laundry care products	Select products certified to Green Seal or other approved program
Sanitary paper products, including • toilet tissue • facial tissue • paper towels • napkins	Select products certified to Green Seal or other approved program
Printing and writing paper	Select products certified to Green Seal or other approved program
Disposable menstrual products	Select products that are free of colored dyes and are fragrance-free, or that comply with International Fragrance Association's (IFRA) safety standards
Trash, recycling, and composting can liners	Select products that contain minimum 30%

	postconsumer recycled content
Paints, coatings, stains, and sealers	Select products certified to Green Seal GS-11 Edition 4.0, or other approved program
Ice melt and snow and ice removal products	Select products that do not contain chloride, sodium chloride, magnesium chloride, potassium chloride, or calcium chloride

2.1.1 Sanitizing and Disinfecting Products

Purchase *sanitizers* and *disinfectants*, including antimicrobial mold and mildew cleaners, that meet the following requirements.

2.1.1.1 Certified Disinfectants

Products are certified to Green Seal or carry the Design for the Environment (DfE) label and contain only the following active ingredients:

- hydrogen peroxide,**
- citric acid,
- lactic acid,
- ethanol,
- isopropyl alcohol,
- peroxyacetic acid,**
- sodium bisulfate, and/or
- additional antimicrobial active ingredients approved by U.S. Environmental Protection Agency (EPA) for the Design for the Environment for Pesticides program.

**The combination of hydrogen peroxide and peroxyacetic acid is a designated asthmagen, so avoid products that contain both.

OR

2.1.1.2 Alternative Allowable Active Ingredients

Products or product additives contain only the following active ingredients:

- hypochlorous acid (sold off the shelf or device-generated on-site), or
- aqueous ozone (device-generated on-site).

AND

2.1.1.3 Prohibited Active Ingredients

No products shall contain any of the following active ingredients:

- benzalkonium chloride compounds (commonly called quats),
- sodium hypochlorite (commonly called chlorine bleach),
- phenol, o-Benzyl-p-chlorophenol, o-Phenylphenol, chloroxylenol (I.e., all ingredients commonly referred to as phenols), or
- glutaraldehyde.

2.2 Durable Goods (4 points)

At the institution level, purchase environmentally preferable durable goods during the *performance period*. Points are awarded according to the following table.

Points for Green Durable Goods

Percentage of Purchases (by Cost)	Points
25	Required for all projects
50	2
70	3
85+	4

Durable goods include the following categories:

- receptacles and dispensers,
- water softeners for drinking fountains,
- on-site electricity generators,
- hand dryers and paper towel dispensers,
- floor cleaning tools and accessories,
- cleaning cloths,
- tools,
- filters, and
- stand alone air filtration units.

For all categories, purchase products that are certified to Green Seal (when available) or meet the criteria listed in the following table.

Environmentally Preferable Purchasing Criteria for Durable Goods

Product	Criteria
Receptacles and dispensers, including • restroom menstrual product receptacles • paper product dispensers	Select touch-free systems that comply with Americans with Disabilities Act (ADA)
Drinking fountain water softerners and water bottle filling stations	Select metered water softeners Select low-energy, touchless bottle filling stations and receptacles
On-site electricity generators	Select U.S. EPA Energy Star–certified products
Hand dryers and paper towel dispensers	Select low-energy, touch-free systems
Floor-cleaning tools and accessories, including	Select products certified to Green Seal or other approved program or are made from

• mops • floor pads • brushes • other accessories	reusable microfiber
Cleaning cloths	Select microfiber cleaning cloths
Tools	Select *ergonomic* tools
Powered equipment filters	Select highest-efficiency filter that equipment will support, as described in manufacturer's filtration specifications
Stand-alone air filtration units	Select multi-filtration air filtration units that can provide 4 air changes per hour, properly sized for square footage of space where they are used. When possible, select lowest-decibel unit that meets air change requirement, or provide written justification for not doing so.

2.3 Powered Equipment (4 points)

At the institution level, purchase environmentally preferable powered equipment during the *performance period*. Points are awarded according to the following table.

Points for Green Powered Equipment

Percentage of Purchases (by Cost)	Points
25	Required for all projects
50	2
70	3
85+	4

Powered equipment includes the following categories:

- vacuum cleaners,
- carpet extraction equipment,
- electric-powered floor maintenance equipment,
- propane-powered floor maintenance equipment, and
- outdoor groundskeeping equipment.

For all categories, purchase products that meet the criteria listed in the following table.

Environmentally Preferable Purchasing Criteria for Powered Equipment

Product	Criteria
Vacuum cleaners	Select equipment certified to Carpet and Rug Institute

	Seal of Approval/Green Label vacuum program and operate at sound level below 70 decibels (dBA). Document efforts to purchase lightweight, self-propelled, *ergonomic* equipment.
Carpet extraction equipment	Select equipment certified to Carpet and Rug Institute Bronze Seal of Approval or higher. Document efforts to purchase lightweight, self-propelled, *ergonomic*, and (if appropriate) low-water-use equipment.
Electric-powered floor maintenance equipment	Select equipment that operates at sound level below 70 dBA. Document efforts to purchase lightweight, self-propelled, *ergonomic*, and (if appropriate) low-water-use equipment.
Propane-powered floor maintenance equipment	Select equipment certified for low emissions by California Air Resources Board (Small Off-Road Engines or Equipment program) and are equipped with catalytic and exhaust monitoring. Document efforts to purchase lightweight, self-propelled, *ergonomic*, and (if appropriate) low-water-use equipment.
Outdoor groundskeeping equipment	Document efforts to purchase lightweight, self-propelled, *ergonomic*, and (if appropriate) low-water-use equipment.

Section 3: Facilities Operations and Maintenance

3.1 Facility Cleaning (8 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- cleaning by hand (Section 3.1.1),
- *sanitizing* (Section 3.1.2),
- *disinfecting* (Section 3.1.3), and
- cleaning with powered equipment (Section 3.1.4).

Where federal, state, local, or tribal regulations also apply, comply with the most stringent requirement.

3.1.1 Cleaning by Hand (2 points)

Include the following requirements in the standard operating procedures:

- Require all employees to wear proper personal protective equipment (PPE) when cleaning by hand, unless the cleaning product's safety data sheet (SDS) states that no PPE is required.
- Ensure that the cleaning methods avoid damage to surfaces.
- Follow the label directions when spray bottles are necessary for product application.
- Determine and describe the scenarios where reusable cleaning cloths must be used.
- Clean *high-touch* surfaces at least once per day, or more frequently as needed.
- Provide requirements for the tracking system used to verify daily cleaning *of high-touch surfaces*.
- For the personnel implementing each task, provide instructions in their preferred languages.

3.1.2 Sanitizing (2 points)

Include the following requirements in the standard operating procedures:

- Require all employees to wear proper PPE when conducting *sanitizing* tasks.
- Follow label directions for safe use of *sanitizing* products that are subject to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).
- For the personnel implementing each task, provide instructions in their preferred languages.

3.1.3 Disinfecting (2 points)

Include the following requirements in the standard operating procedures:

- Using guidelines of the U.S. Centers for Disease Control and Prevention (CDC),[1] determine and describe when *disinfection* is needed and how to *disinfect* safely.
- Follow product label directions for preparing and using *disinfecting* solutions.
- Require all employees to wear proper PPE and safely dispose of materials and supplies after use.
- *Disinfect high-touch surfaces* at least once per day, or more frequently as needed.
- Provide requirements for the tracking system used to verify daily *disinfection* of *high-touch surfaces*.
- Use only approved *disinfectants*, in compliance with the district's procurement policy. In instances where a noncompliant product may be required, document the specific situation and reason for using a noncompliant product.
- For the personnel implementing each task, provide instructions in their preferred languages.

3.1.4 Cleaning with Powered Equipment (2 points)

Include the following requirements in the standard operating procedures:

- Ensure that backpack equipment models (e.g., backpack vacuums, blowers, electrostatic sprayers) have *ergonomic* harnesses and are properly fitted.
- Follow manufacturer's recommendations for powered equipment battery maintenance, storage, and charging.
- Require staff to wear appropriate PPE when checking acid batteries.
- Inspect vacuum bags or canisters after every two hours of use. Replace bags or empty canisters when half full or as indicated by a bag sensor.
- For the personnel implementing each task, provide instructions in their preferred languages.

3.2 Location-Specific Cleaning Requirements (12 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- food service, dining areas, and break rooms (Section 3.2.1),
- restrooms (Section 3.2.2),
- laundry (Section 3.2.3),
- entryways (Section 3.2.4),
- laboratories (Section 3.2.5), and
- ~~outdoor surfaces~~ATP monitoring (Section 3.2.6).

3.2.1 Food Service, Dining Areas, and Break Rooms (1 point)

3.2.1.1 Cleaning and Sanitizing (1 point)

Include the following requirements in the standard operating procedures:

[1] https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html

- Clean and *sanitize* surfaces in food preparation and consumption areas, areas touched by hands, and containers used for food waste at least daily, and more frequently as needed.
- Empty waste containers once per day and when full.

~~**3.2.1.2 ATP Monitoring** (2 points)~~
~~At least monthly and during the performance period, implement adenosine triphosphate (ATP) monitoring for food preparation surfaces. Provide written justification for any food preparation surfaces excluded from monthly monitoring.~~

3.2.2 Restrooms (2 points)

3.2.2.1 Supply Labeling and Cleaning Procedures (1 point)
Include the following requirements in the standard operating procedures:

- List the equipment and cleaning supplies that must be used to comply with this standard and each ~~school's~~ building's restroom needs.
- Clearly label the equipment used for restroom cleaning (e.g., with a permanent marker or by color) as designated for restroom-only cleaning.
- Use color coding to ensure that cloths used on toilets and urinals are not used on other surfaces.
- Store designated restroom-cleaning equipment separately from other cleaning equipment ~~and maintain a written list of this equipment and where it is located~~.
- Conduct restroom cleaning from high to low, toward the doorway, with dry cleaning tasks performed before wet cleaning operations.
- Clean and *disinfect* surfaces where pathogens can collect and surfaces touched by hands daily, or more frequently in the event of high traffic or high occupancy.
- Remove standing moisture from floors and restroom surfaces.
- Pull bathroom trash liners and *disinfect* trash receptacles, including stall menstrual waste receptacles, at least once per day.

3.2.2.2 Maintaining Drain Traps (1 point)
Provide adequate water deposits or primer liquids to effectively maintain the drain traps. Create and implement a maintenance procedure for any drain that does not receive regular wet cleaning.

~~**3.2.2.3 Daily Logging** (1 point)~~
~~Track and log daily cleaning activities for *high-touch surfaces* (e.g., doorknobs, handles, in-stall handrails).~~

3.2.3 Laundry (2 points)

3.2.3.1 Laundry Handling (1 point)
Include the following requirements in the standard operating procedures:

- Use the appropriate water temperature setting and dry items completely.
- Wear gloves and a mask if handling dirty laundry from a person who is sick.
- Clean clothes hampers and laundry baskets after they have held dirty laundry.
- Wash hands after handling dirty laundry.

3.2.3.2 Detergent Dispensing (1 point)
Comply with the following detergent dispensing strategies for all laundry care areas within the scope of the institution:

Use an automated detergent-dispensing system ~~in all laundry care areas~~.

AND/OR

Use pre-measured laundry soap pods.

3.2.4 Entryways (2 points)

Include the following requirements in the standard operating procedures:

- Clean outside entryways daily.
- Place walk-off matting at all building entryways, with 6–10 feet of scraper or wiper matting, followed by 6–10 feet of wiper matting.
- Vacuum matting daily, or as needed to prevent contaminants from being tracked into the building.
- Evaluate matting regularly to ensure that it stays in place during periods of high foot traffic, and inspect it for bunching and curled edges.
- Replace worn or heavily used matting as needed.

3.2.5 Laboratories (1 point)

Include the following requirements in the standard operating procedures:

- Before entry, don PPE appropriate to the activities in the lab.
- Focus cleaning activities on the floors and *high-touch surfaces* (e.g., door handles); avoid disturbing experiments and chemicals on benchtops.
- Ask the lab owner or manager to clean and *disinfect* test surfaces between experiments.

~~3.2.6 Outdoor Surfaces (1 point)~~

~~Include the following requirements in the standard operating procedures:~~

- ~~Clean *high-touch* plastic or metal surfaces (e.g., grab bars, play structures, railings) according to the specified schedule.~~
- ~~Do not spray cleaning products or *disinfectants* on outdoor surfaces (e.g., sidewalks, roads, mulch, sand) or attempt to *disinfect* wood surfaces (e.g., wood play structures, benches, tables), except in cases of an accident or the presence of bodily fluids.~~
- ~~—~~

3.2.6 ATP Monitoring (2 points)

At least monthly and during the performance period, implement adenosine triphosphate (ATP) monitoring in at least two of the following space types within the scope of the institution:

- Breakroom areas
- Classroom surfaces
- Entryway areas

- Food preparation surfaces
- Food service and dining areas
- Restroom surfaces

Ensure that high-touch surfaces within the selected space types are prioritized for testing. Record results and corrective actions that result from monitoring.

3.3 Floor Maintenance (2 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- routine floor maintenance (Section 3.3.1), and
- periodic or restorative floor maintenance (Section 3.3.2).

3.3.1 Routine Floor Maintenance (1 point)

Include the following requirements in the standard operating procedures:

- Vacuum floors or use mops with mop heads that are certified to Green Seal or other approved program, or are reusable microfiber mop heads.
- Schedule daily cleaning for heavy-traffic areas (e.g., entrances, corridors, break areas, congested areas, main passageways, primary work or office areas).
- Vacuum or mop as necessary to clean light-traffic areas (e.g., conference rooms, administrative offices, auditoriums, media centers, limited-access areas, other areas or spaces with limited or periodic use).

3.3.2 Periodic or Restorative Floor Maintenance (1 point)

Include the following requirements in the standard operating procedures:

- ~~Perform restoration only when needed, rather than on a predetermined schedule.~~
- Schedule floor stripping and refinishing during periods of minimum occupancy.
- Provide reasonable notice to building occupants before nonroutine floor maintenance operations. Establish the timing and method of the notice in consultation with building management.
- Ensure that sufficient floor finish exists on the floor surface, to avoid damage to the flooring.
- Avoid spraying floor restoration chemicals.
- Use burnishing or buffing equipment that captures the dust generated by the equipment.
- Ventilate the area to the outside if possible, both during and after floor stripping, scrubbing, or recoating.

3.4 Carpet Cleaning and Maintenance (2 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- routine carpet maintenance (Section 3.4.1), and
- interim or *restorative carpet cleaning* (Section 3.4.2).

3.4.1 Routine Carpet Maintenance (1 point)

Include the following requirements in the standard operating procedures:

- Schedule daily vacuuming for heavy-traffic areas (e.g., entrances, corridors, break areas, congested areas, main passageways, primary work or office areas).
- Schedule periodic vacuuming for light-traffic areas (e.g., conference rooms, administrative offices, auditoriums, media centers, limited-access areas, other areas or spaces with limited or periodic use).

3.4.2 Interim or Restorative Carpet Cleaning (1 point)

Include the following requirements in the standard operating procedures:

- Provide reasonable notice to building occupants before interim or *restorative carpet cleaning* operations.
- Perform carpet extraction only as needed rather than on a regular schedule. When carpet extraction is necessary, schedule extraction during periods of minimum occupancy.
- Clean carpets such that they will dry in less than four hours.
- Limit workers' exposure to dust and particulate matter from vacuum cleaners when cleaning and replacing bags and filters.
- Do not use propane-powered equipment indoors when the building is occupied.
- Provide the maximum air circulation and exchange possible when using propane-powered equipment indoors.

3.5 Waste, Recycling, and Composting Handling (5 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- trash and recycling storage (Section 3.5.1),
- trash, recycling, and compost collection (Section 3.5.2), and
- communication (Section 3.5.3).

3.5.1 Trash and Recycling Storage (1 point)

Include the following requirements in the standard operating procedures:

- Dispose of trash outside, in covered containers, away from the immediate exterior of the building.
- Store all recyclable waste items in separate recycling containers.

3.5.2 Trash, Recycling, and Compost Collection (3 points)

3.5.2.1 Trash Collection (1 point)

Include the following requirements in the standard operating procedures:

- Ensure that the trash stations are marked clearly, and use uniform color and signage to distinguish trash bins from recycling containers.
- Label bins with both text and images to ensure that occupants know what items are allowed.

- Remove trash and replace liners daily if possible, or when liners are ripped or soiled from wet trash or food.
- Dispose of all trash before weekends and holidays.
- Ensure that personnel have tools (e.g., reachers) that allow for safe and *ergonomic* work.

3.5.2.2 Recycling Collection (1 point)
Include the following requirements in the standard operating procedures:

- Ensure that the recycling stations are marked clearly, and use uniform color and signage to distinguish recycling bins from trash containers.
- Label recycle bins with both text and images to ensure that occupants know what materials can be recycled.
- Use restrictive openings to control what can be placed inside.
- Inspect recycling areas daily, including collection bins, and clean them if needed.
- Remove recyclable food and beverage containers from the building before weekends and holidays.
- Determine, together with facility management, the following:
    - procedures for rinsing and separating recyclables,
    - locations and procedures for collecting recyclables, and
    - making recycling stations convenient to access.
- Periodically review the status of the recycling program, including effectiveness and any problems with the separation or collection of recyclable materials.

3.5.2.3 Compost Collection (1 point)
Include the following requirements in the standard operating procedures:

- Ensure that compost stations are marked clearly, and use uniform color and signage to distinguish composting bins from trash and recycling containers.
- Label compost bins with both text and images to ensure that occupants know what materials can be composted.
- Use restrictive openings to control what can be placed inside.
- Empty food compost containers daily, or as needed.
- Empty paper towel compost once a week.

3.5.3 Communication (1 point)
Include the following requirements in the standard operating procedures:

- Display easy-to-understand instructional signage at all waste collection stations.
- Provide education and outreach to the community to engage people in waste diversion action.

3.6 Material Handling and Storage (5 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- proper material handling and storage practices (Section 3.6.1),
- chemical use policy (Section 3.6.2),
- spill kits (Section 3.6.3),

- *dilution control* (Section 3.6.4), and
- closed *dilution control* system (Section 3.6.5).

3.6.1 Proper Material Handling and Storage Practices (1 point)

Include the following requirements in the standard operating procedures:

- appropriate ventilation, security, safety, and management of each storage area for cleaning products,
- labeling of hand-held spray bottles and stored chemicals,
- protocols for wearing proper PPE, per product SDS, when handling chemicals,
- ~~posting of the chemical inventory~~the inventory of chemicals available for use in the storage area ~~to track supplies~~,
- easily understood directions, in the preferred languages of cleaning staff, for dilution of cleaning products, proper rinsing of containers, and appropriate disposal of leftover products and containers, and
- location of product ~~SDSs, which should be readily available to staff~~Safety Data Sheets.

3.6.2 Chemical Use Policy (1 point)

Implement a first-in, first-out chemical usage policy, detailed in the standard operating procedures. The policy should cover, at minimum, the following:

- chemicals approved for purchase,
- procedures for labeling, dating, and inspecting materials when they are received,
- recordkeeping for date of receipt,
- use of old stock of chemicals first,
- inventorying of materials, and
- disposal procedures for expired chemicals and damaged product containers.

3.6.3 Spill Kits (1 point)

Create a spill kit for all enclosed rooms where chemicals are stored. The kit must contain the following items, as necessary and appropriate:

- rags to wipe up small spills,
- container to hold spill debris,
- granular absorbent, absorbent pads, and broom,
- plastic dustpan and broom for sweeping up granular absorbent (for flammable materials, choose a spark-free dustpan),
- labels (e.g., hazardous waste stickers) to mark containers of spill debris,
- forceps, tongs, or other tools to pick up contaminated debris or broken glass,
- ~~oil-absorbent brooms,~~
- ~~pump to empty leaking drums, as well as plugs and patching materials for drums,~~
- written chemical spill kit procedures and instructions, in the preferred languages of the staff,
- basic first-aid kit,
- calcium gluconate gel (2.5%) for skin contact with hydrofluoric acid, and
- isopropanol, polyethylene glycol 300, or polyethylene glycol 400 for skin contact with chloroform or phenol.

3.6.4 Dilution Control (1 point)

Include the following in the standard operating procedures:

- process for diluting cleaning product *concentrates* using a *dilution control* system that limits workers' exposure, and
- process and frequency for periodic checks of the *dilution control* system to ensure that the proper chemical ratio is produced, via test strips, calibration of the dilution system, or other quantitative check.

3.6.5 Closed Dilution Control System (1 point)

For products with high toxicity when *concentrated*, include the following in the standard operating procedures:

- list of products with a high *concentrated* toxicity,
- process for safely using closed *dilution control* systems, and
- locations of closed *dilution control* systems.

3.7 Powered Equipment Maintenance (3 points)

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- general powered equipment maintenance (Section 3.7.1), and
- vacuum cleaner maintenance (Section 3.7.2).

3.7.1 General Powered Equipment Maintenance (2 points)

3.7.1.1 Standard Operating Procedures (1 point)

Include the following requirements in the standard operating procedures:

- Ensure that the equipment functions properly or is tagged out of service.
- Use equipment for its full service life.
- Use a maintenance log to record cleaning and repairs.
- Ensure that the equipment is cleaned of used products (e.g., oil).
- Store and maintain equipment properly, per manufacturer's recommendations.

~~Establish a quarterly maintenance program to inspect and maintain all equipment, per manufacturer's recommendations.~~

Maintain a list of recommended service life for powered equipment and develop a plan for the phase-out of equipment.

3.7.1.2 Battery Maintenance Schedule (1 point)

Establish and implement during the performance period a battery maintenance schedule.

3.7.2 Vacuum Cleaner Maintenance (1 point)

Include the following requirements in the standard operating procedures:

- Equip vacuum cleaners with the proper filter or bag, and change or clean filters per manufacturer's recommendations.

- Limit workers' exposure to dust and particulate matter when cleaning and replacing bags and filters, as applicable.

3.8 Integrated Pest Management (5~~3~~ points)

~~At the institution level, create and implement during the performance period an integrated pest management plan using the Penn State Extension IPM for Pennsylvania Schools and Childcares How to Manual, or a locally required equivalent, whichever is more stringent.~~

~~Ensure that pest management workers and contractors are licensed.~~
At the institution level, create a policy that establishes the use of Integrated Pest Management (IPM) plan across the institution. Establish goals and objectives for the IPM Program, designate an authority charged with overseeing the program, develop process guidelines, and determine emergency notification procedures for when a pesticide must be utilized.

Establish IPM tactics appropriate to each of the following categories for all common pests in the institution's locality.

- Design and Maintenance tactics
- Physical and Mechanical tactics
- Biological tactics
- Lower Risk Chemical applications
- Most Risky Chemical applications

Determine action thresholds for shifting from preventative pest management measures to active eradication of pests through low- and higher-risk chemical application.

Create a communications strategy that maps information flows implemented as part of the IPM program. Include the following:

- Process for how pest problems specific to each building will be reported.
- How various building occupants can report the presence of a pest.
- The personnel responsible for responding to sanitation and building repair problems reported through inspections and occupant reporting.

Create and implement a monitoring schedule to look for pests and identify areas where pests may be prone to appear (e.g., wall cracks, leaky areas, poorly cleaned spaces).

Maintain records of non-pesticide actions taken in buildings and evaluate results to determine additional modifications to facility operations that support limiting the presence of pests.

When pesticide application is necessary, follow the institution's determined process for applying a pesticide. Include the following requirements in the Standard Operating Procedures for pesticide application:

- Use pesticides in accordance with their EPA-approved label directions, including that it is labeled for the intended site.
- Applicators must don personal protective equipment during applications.

- All labels and Safety Data Sheets (SDS) for the pesticide products authorized for use in the IPM program must be maintained on file and made available to building occupants or other stakeholders upon request.
- All pesticide applicators must be properly licensed.
- Provide adequate notification to building occupants and parents of K-12 students consistent with state and local ordinances, or at least 72 hours prior to application (whichever is more stringent).
- Post warning signs at least 72 hours prior to application and do not remove them for at least 48 hours after application.
- Follow reentry period guidelines on product labels before cleaning and maintenance personnel, students, and staff return to the building.

At least annually, evaluate the IPM plan and process, engaging with students (and parents of K-12 students), instructors, and other building personnel across the institution to determine whether revisions are necessary.

During the *performance period*, implement the IPM program.

Section 4: Building Systems Operations and Maintenance

4.1 Heating, Ventilation, and Air Conditioning (HVAC) Systems

4.1.1 HVAC System Maintenance (Required)

In the Facility Operations and Maintenance Plan, create written HVAC system maintenance standard operating procedures that include, at minimum, the following requirements:

- At least quarterly and during the performance period, inspect HVAC systems, ~~using~~ covering, at minimum, the items addressed in the ~~U.S. EPA~~ Ventilation Checklist[2] from U.S. EPA's Tools for Schools~~, to examine~~ :
    - outdoor air intakes, including obstructions, pollutant sources, and airflow
    - system cleanliness, including air filters, drain pans, coils, air handling units, unit ventilators, and mechanical rooms
    - outdoor air supplies, including controls information, clocks, timers, and switches, control components, and outdoor air dampers, freeze stats, mixed-air thermostats, economizers, and fans,
    - air distribution, including supply and return air pathways and pressurization in buildings
    - exhaust systems, ~~and~~ including exhaust fan operation, exhaust airflow, and exhaust ductwork, and
    - quant~~l~~ity of outdoor air, including outdoor air measurements and calculations, and acceptable levels of outdoor air quantities.
- ~~At least quarterly and during the performance period, clean air supply diffusers, grilles, return registers, and outside air intakes to prevent contaminants from entering the system or spreading around the room.~~
- ~~At least quarterly and during the performance period, inspect outside air intakes to ensure that they are working properly, with no standing water in the vicinity of the air intakes.~~
- ~~At least quarterly and during the performance period, inspect the building automation system, dampers, actuators, and physical system components to ensure that they are working as designed.~~
- Establish a ~~written~~ HVAC issue response plan that prioritizes issues based on their scope, urgency, and consequences for the safety, health, and wellness of building occupants. Implement the response plan during the performance period.
- Create an equipment replacement plan based on the expected lifetime of the equipment. Implement the replacement plan during the performance period.

4.1.2 ~~Systems Able to Meet Required~~ Assessing Ventilation (6 points)

4.1.2.1 Document Current HVAC System Performance (1 point)

[2] https://www.epa.gov/iaq-schools/ventilation-checklist-indoor-air-quality-tools-schools

For all buildings within the scope of the institution, assess each system and determine whether the existing performance of the system meets the outdoor air intake flow rates and minimum requirements of *ANSI/ASHRAE Standard 62.1-2019 Ventilation for Acceptable Indoor Air Quality* (or the version applicable to the institution's location), for all relevant occupancy categories addressed within ASHRAE 62.1. For occupancy categories not addressed in ASHRAE 62.1, document the referenced standard used to calculate outdoor air intake flow rates and determine whether the system currently meets those requirements.

4.1.2.2 Explore HVAC System Modifications (2 points)

Following the guidelines in the WELL Health and Safety Rating, SA1- Assess Ventilation, complete the following activities for all HVAC units within the scope of the institution:

Have a qualified engineer provide the institution with an assessment of the following:

- The extent to which the current mechanical system in each building can operate without recirculating air
- How and if any of the potential HVAC system modifications would affect the following:
  - Energy consumption.
  - The ability to manage thermal comfort conditions (e.g., higher ventilation leading to draft, recirculation elimination straining conditioning capacity).
  - Maintenance processes.
- The highest supply rate of outdoor air the current mechanical system can provide.
- Potential modifications to system controls to increase supply of outdoor air (e.g., ventilating for longer hours, changing the setpoint for demand-controlled ventilation systems).

4.1.2.3 Implement HVAC System Modifications (3 points)

For all buildings within the scope of the institution, modify or maintain each outdoor air intake, supply air fan, and ventilation distribution system to meet the outdoor air intake flow rates and minimum requirements of *ANSI/ASHRAE Standard 62.1-2019 Ventilation for Acceptable Indoor Air Quality* (or the version applicable to the institution's location), for all occupancy categories addressed by ASHRAE 62.1. For occupancy categories not addressed in ASHRAE 62.1, document the referenced standard used to calculate outdoor air intake flow rates.

~~For all buildings within the scope of the institution, w~~Where the existing HVAC system alone cannot achieve adequate ventilation and air exchange for the occupancy level because of physical constraints of the existing ventilation system, use the engineering assessment of the highest supply rate of outdoor air the current mechanical system can provide (Section 4.1.2.2) to supply the minimum setpoint, and not less than 10 cubic feet per minute of outdoor air per person. ~~, per CDC Ventilation in Schools and Childcare Programs guidelines,~~ If necessary to achieve adequate ventilation and air exchange for the occupancy level, provide supplemental air-cleaning systems (e.g., standalone HEPA filtration units) for all classrooms and other areas of assembly.

4.1.3 Air Filters (2 points)

Use air filters labeled for minimum MERV-13 in all HVAC systems.

4.1.4 Computerized Maintenance Management Systems (2 points)

Use a computerized maintenance management system (CMMS) for all maintenance operations.

4.2 Water and Plumbing Systems

In the Facility Operations and Maintenance Plan, create standard operating procedures, to be implemented in all buildings, that cover the following activities:

- new plumbing installations (Section 4.2.1),
- potable water testing (Section 4.2.2),
- water quality emergencies (Section 4.2.3),
- backflow and drainage maintenance (Section 4.2.4),
- cooling towers (Section 4.2.5), and
- dormant buildings (Section 4.2.6).

4.2.1 New Plumbing Installations (Required)

Establish a written maintenance plan that includes, at minimum, the following requirements:

- Ensure that any new plumbing is compliant with the Safe Drinking Water Act (NSF/ANSI 61 Annex G).
- Ensure that any solder used for plumbing providing drinking water is of 95/5 composition.

Implement the maintenance plan during the performance period.

4.2.2 Potable Water Testing (1 point)

Establish a potable water testing protocol that follows U.S. EPA 3Ts for Reducing Lead in Drinking Water Toolkit. Implement the water testing protocol in all buildings during the performance period. Provide justification for deviations from the water testing protocol.

4.2.3 Water Quality Emergencies (1 point)

Create a written action plan for emergency water quality problems. Implement the action plan as necessary during the performance period. Provide justification for emergency water quality problems where the written action plan was not followed.

4.2.4 Backflow and Drainage Maintenance (1 point)

Establish a maintenance protocol for backflow preventers, floor drains, and air gaps. Implement the maintenance protocol during the performance period.

4.2.5 Cooling Towers (2 points)

Establish a water treatment protocol for all cooling towers. During the *performance period*, conduct a one-time potable water analysis of all cooling towers governed by the institution. Measure at least the following control parameters, and limit cooling tower cycles to avoid exceeding any of the maximum allowable concentrations listed.

Maximum Allowable Concentrations for Cooling Tower Control Parameters

Parameter	Maximum Concentration
Ca (as CaCO3)	1,000 ppm
Total alkalinity	1,000 ppm
SiO2	100 ppm
Cl	250 ppm
Conductivity	2000 µS/cm

4.2.6 Dormant Buildings (1 point)

Establish and implement a plan for short-term (weeks) and long-term (months) shutdowns of buildings. Include processes for reduced HVAC system use, periodic monitoring, and maintaining appropriate humidity levels. ~~a dormant buildings maintenance~~

Establish processes ~~protocol~~ compliant with guidelines from the Center for Disease Control and Prevention's "Reopening Buildings After Prolonged Shutdown or Reduced Operation" ~~that follows CDC guidance for restoration of service~~ that covers assessing for at least the following hazards when preparing to reopen a building:~~.~~
Legionella (the cause of Legionnaire's Disease),
Mold, and
Lead and copper contamination

Implement the ~~maintenance protocol~~ plan as necessary during the performance period. Provide justification for any deviations from the ~~maintenance~~ shut down and reopening protocol.

4.3 Sidewalk, Pavement, and Grounds Maintenance (4 points)

4.3.1 Site Management Plan (2 points)

At the institution level, create and implement a site management plan using the U.S. Green Building Council's Site Management Policy Template,[3] which covers the following:

- goals and performance measurement,
- schedule for reassessment,
- quality assurance and quality control processes,
- roles and responsibilities, and
- standard operating procedures and implementation strategies for
    - maintenance equipment,
    - snow and ice removal,
    - erosion and sedimentation control,

[3] https://www.usgbc.org/resources/v41-ssc-site-management-policy-template

- addition of organic matter mulch to planting areas,
- invasive and toxic species management,
- fertilizer usage,
- herbicide, pesticide, and fungicide usage and integrated pest management plan,
- irrigation using automatic controlled systems,
- irrigation management, and
- storage of materials and equipment.

Ensure that site management workers and contractors are licensed.

4.3.2 Hardscape and Pavement Maintenance (2 points)

Include the following requirements in the site management plan:

- At least monthly, monitor the condition of entryways, sidewalks, parking areas, and roadways and inspect for damage and disrepair.
- As needed, replace cracked and sunken surfaces and fill potholes to reduce the potential for injuries.

Section 5. Ongoing Monitoring, ~~and~~ Evaluation, and Training

5.1 Indoor Air Quality Planning, Monitoring, and Reporting (17 points)[BM1]

5.1.1 Action Planning to Address IAQ Issues (5 points)

Implement any of the following strategies.

5.1.1.1 Mold, Moisture, and Humidity Control (1 point)
Create and implement an action plan for addressing mold and mildew consistent with U.S. EPA Tools for Schools, Appendix H, Mold and Moisture.

Monitor relative humidity at least quarterly to maintain industry-accepted standards, as described in U.S. EPA Tools for Schools.

5.1.1.2 Contaminant Reduction (2 points)
Create and implement an action plan for reducing radon, VOCs, formaldehyde, $PM_{2.5}$ and/or PM_{10}, ozone, and other elements that affect IAQ, such as bus diesel exhaust, sewer gas, and natural gas venting. Document the achieved reductions in contaminants during the *performance period*.

5.1.1.3 Asbestos Management (1 point)
Develop an Asbestos Hazard Emergency Response Act (AHERA) management plan for asbestos remediation. Implement the management plan as necessary during the performance period.

5.1.1.4 Emergency IAQ Issues (1 point)
Create a written action plan for emergency air quality problems. Implement the action plan as needed during the performance period. Provide justification for emergency air quality problems where the written action plan was not followed.

5.1.2 Indoor Air Quality Monitoring (9 points)

Implement any of the following strategies.

5.1.2.1 Carbon Dioxide (CO_2) Monitoring (~~Required~~4 points)
K-12 School Districts
Monitor levels of CO_2 during times of peak occupancy, at least once per calendar quarter while school is in session and during the *performance period*, across a sample of buildings in the following building locations:

- cafeteria,
- gym,
- library, and
- two classrooms.

Points are awarded according to the following table.

Points for Percentage of Buildings Included in CO_2 Monitoring

Percentage Monitored	**Points**
~~10 percent (or~~ 3 buildings, as part of an institutional pilot program*~~, whichever is higher)~~	~~Required for all projects~~1
25 percent	2~~1~~
50 percent	3~~2~~
100 percent	4~~3~~

The buildings selected for monitoring must ~~be~~ use ~~an~~ the ~~Equity-Based~~ Representative Sample approach (See Section 1.2)~~(Appendix 2)~~.

At the institution level, create a written action plan for situations when CO_2 levels exceed 900 ppm. Document all instances of CO_2 levels in excess of 900 ppm during occupancy throughout the *performance period* identified through monitoring, and provide a summary of the remediation action implemented.

*For institutions pursuing one point by conducting CO2 monitoring in three buildings, the testing must be part of an overall initiative to attempt to expand testing across the institution. Provide monitoring results, a summary of trends identified, ongoing remediation actions implemented to address issues identified through monitoring, and a narrative description of how the monitoring results will inform upcoming budget requests and resource spending that expands the use of CO2 monitoring within the institution.

Higher Education Institutions
Establish and implement a plan to monitor CO_2 and specify the building spaces to be tested. Conduct testing at least once per quarter, including periods of peak occupancy, during the *performance period* across a sample of buildings. Points are awarded according to the following table.

Points for Percentage of Buildings Included in CO_2 Monitoring

Percentage Monitored	**Points**
~~10 percent (or~~ 3 buildings, as part of an institutional pilot program*~~, whichever is higher)~~	~~Required for all projects~~1
25 percent	2~~1~~
50 percent	3~~2~~

100 percent	43

The buildings selected for monitoring must be an Equity-Based Representative Sample (Appendix 2).
The buildings selected for monitoring must use the Representative Sample approach (See Section 1.2).

At the institution level, create a written action plan for situations when CO_2 levels exceed 900 ppm. Document all instances of CO_2 levels in excess of 900 ppm during occupancy throughout the *performance period* identified through monitoring and provide a summary of the remediation action implemented.

*For institutions pursuing one point by conducting CO2 monitoring in three buildings, the testing must be part of an overall initiative to attempt to expand testing across the institution. Provide monitoring results, a summary of trends identified, ongoing remediation actions implemented to address issues identified through monitoring, and a narrative description of how the monitoring results will inform upcoming budget requests and resource spending that expands the use of CO2 monitoring within the institution.

5.1.2.2 Ongoing Monitoring for Contaminants (3 points)
In all institution buildings, establish and implement a plan to monitor indoor air quality (IAQ), including monitoring frequency, contaminants to be monitored, acceptable levels, and building spaces tested. Monitor, at minimum, the following contaminants:

- CO_2,
- carbon monoxide,
- mold,
- mildew,
- total volatile organic compounds (VOCs)
- formaldehyde,
- radon,
- particulate matter ($PM_{2.5}$ and/or PM_{10}),
- ozone, and
- other elements that affect IAQ, such as bus diesel exhaust, sewer gas, and natural gas venting.

Conduct air quality testing in each building at least once during the *performance period*, during times of peak occupancy. Document the results and remediation actions.

5.1.2.3 Building Occupant ~~Interviews~~ Engagement (21 points)
Option 1: Building Occupant Interviews
At least quarterly and during the performance period, interview building occupants in schools with frequent IAQ issues to help identify problem areas. Include the school nurse and other staff members who regularly engage with students and staff to identify any trends in health complaints.

OR

Option 2: Ongoing Feedback Solicitation
Establish an ongoing communications channel for all building occupants across the institution to identify indoor air quality issues, problem areas, and health complaints that may be related to indoor air quality. At least annually and during the *performance period*, remind building occupants of the communications channel and the submission process. During the *performance period*, track the messages received, the follow up actions taken, and the status of each issue identified.

5.1.3 Reporting on IAQ Issues (3 points)

At least annually and during the performance period, report to ~~the~~ each building ~~school~~ community, at minimum, the following information:

- all IAQ issues found in ~~each~~ the building through contaminant testing or reported by a building occupant,
- the scope and scale of the issues, and
- remediation activities planned, underway, or completed.

For K-12 institutions, in addition to the above requirements, include the following information in reports to the district community:

- the complete list of all IAQ issues found throughout all school buildings in the district
- the distribution of IAQ issues by school demographics,
- areas of disproportionate IAQ effect by school demographics, and
- any other relevant trends indicated by the data.

5.2 Performance Measurement, Metrics, and Data Tracking (2 points)

- Document the size and age of all buildings.
- Track the number of work orders written against the building inventory.
- Monitor work orders to ensure that all schools receive timely and equitable attention to maintenance and operations matters.
- Review, identify, and plan for improvements using data and trends identified through the IAQ and building system monitoring.

5.3 Staffing Formulas (1 point)

- Develop staffing formulas that take into consideration building size, occupant load, space usage, and any unique needs of student populations.
- Use staffing formulas when making staffing decisions.

5.4 Ongoing Training (4 points)

5.4.1. Annual Training for Cleaning Personnel (2 points)

Provide all cleaning personnel who have been on staff at least one year 24 or more hours of

annual training, delivered through in-service, continuing education, or professional development, to maintain knowledge of correct procedures for safety, cleaning products, equipment, techniques, and relevant environmental standards. Points are awarded according to the following table.

Points for Hours of Annual Training for Cleaning Personnel

Hours	Points
12	1
24	2

Document requests for training accommodations (e.g., materials in a non-English language, transcripts or recordings of presentations) and the accommodations provided.

Maintain records for each staff member of all training required by this standard.
Records must include the following:

- topics addressed in the training,
- general outline of information covered,
- name and qualifications of the trainer, and
- dates and duration of the training.

Retain the records for all training for the duration of each staff member's employment, and for one year after departure.

Within one month of annual training, use a pass-fail test or hands-on check with equipment to ensure that personnel understand and can successfully implement skills taught during onboarding training. Maintain a record of skills testing alongside other training records.

During the *performance period* and at least once every two years, conduct an evaluation of materials to check for relevance and appropriateness. Update materials as needed.

5.4.2 Cross-Departmental Training (1 point)

During the *performance period* and at least once per year, provide teachers, nurses, food service staff, maintenance and grounds staff, transportation personnel, and other relevant school personnel training on their roles and responsibilities in supporting the plan, promoting health and safety, and minimizing the spread of infectious disease.

Document requests for training accommodations (e.g., materials in a non-English language, transcripts or recordings of presentations) and the accommodations provided.

Maintain records for each staff member of all training required by this standard.
Records must include the following:

- topics addressed in the training,
- general outline of information covered,

- name and qualifications of the trainer, and
- dates and duration of the training.

Retain the records for all training for the duration of each staff member's employment, and for one year after departure.

5.4.3 Procurement Training (1 point)

During the *performance period* and at least once per year, provide procurement staff training on selecting environmentally preferable cleaning products, materials, and equipment; understanding third-party product certifications; and soliciting cleaning personnel's assessment of the cleaning products.

Document requests for training accommodations (e.g., materials in a non-English language, transcripts or recordings of presentations) and the accommodations provided.

Maintain records for each staff member of all training required by this standard.
Records must include the following:

- topics addressed in the training,
- general outline of information covered,
- name and qualifications of the trainer, and
- dates and duration of the training.

Retain the records for all training for the duration of each staff member's employment, and for one year after departure.

Appendix 1: Glossary

concentrate a product that must be substantially diluted with water before use. To comply with the requirements of Green Seal GS-37, glass, restroom, and carpet cleaners must be concentrated to at least 1:16; general-purpose cleaners must be concentrated to at least 1:32.

dilution control a procedure or formulation that achieves the proper mix of a concentrated product while limiting workers' exposure. Examples include tablets, dissolvable film pods, closed dilution systems, and premeasured pouches.

disinfect to destroy infectious microorganisms (bacteria, viruses, mold, mildew) present on hard surfaces.

disproportionate impact an outcome experienced by one subgroup that is substantially different (lower or higher) from the benchmark rate.

economic disadvantage an unfavorable status of wealth or resources. For the purposes of this standard, the percentage of students in a school who are eligible for free or reduced-price lunch (FRPL) under the National School Lunch Program (NSLP) is the most appropriate proxy measure for economic disadvantage.

environmentally preferable product a product certified as "green" based on the consequences for human health and safety, ecological toxicity, other environmental effects, and resource conservation, as appropriate, of the product and its packaging, on a life-cycle basis. The designation may come from a Type 1 (i.e., third-party) environmental label developed in accordance with the ISO 14024 Environmental Labeling Standard, or from an established, legitimate, nationally recognized program that has no financial interest or stake in sales of the product, or other conflict of interest. The designation must distinguish market leadership for the product category, and the criteria must be publicly available and transparent.

equity fairness and impartiality, such that one's identity has no influence on how one fares in society. In education, equity is a measure of achievement, fairness, and opportunity made possible by the educational institution's structure, policies, and practices.

equity gap differences among particular student groups with respect to one or more educational outcomes.

ergonomic designed for human comfort, safety, and injury prevention during use. The word may apply to a product, tool, piece of equipment, furniture, or other accessory.

high-touch surface a surface that may be handled frequently. Examples include counters, tables, doorknobs, light switches, handles, stair rails, elevator buttons, desks, keyboards, phones, toilets, faucets, and sinks.

performance period the most recent period of operations preceding the certification application. It must be at least three months but no more than 12 months, unless noted otherwise in the standard requirements. All performance periods must overlap and conclude within 30 days of each other.

restorative carpet cleaning a procedure used when accumulated soils and cleaning residues need to be extracted to return the carpet to a relatively clean (free of unwanted matter) condition or when interim cleaning systems are not achieving desired results.

sanitize to reduce bacteria to levels specified by public health codes or regulations. *Note: Sanitizing uses chemicals to kill bacteria on surfaces; it is not intended to kill viruses.*

vulnerable population building occupants who are more susceptible than the general population to health risks that cleaning operations may pose.

Appendix 2: Equity-Based Representative Sample

Determine an Equity-Based Representative Sample through the steps that follow.

K-12 School Districts

Provide the following:

1. A data set of all schools in the district that includes student population and racial demographics from the current school year.
2. A list of all schools organized in descending order by the percentage of Black, Indigenous, and People of Color (BIPOC) students (combined) in each school.
3. The average percentage of BIPOC students in the district.
4. A list of the schools whose percentage of BIPOC students is +/- 10% of the district average.
5. The 20% of schools with the highest percentage of BIPOC students.
6. The 20% of schools with the lowest percentage of BIPOC students.
7. Repeat Steps 1–6, calculating the percentage of students who are *economically disadvantaged* (as defined in Appendix 1, Glossary).
8. A list of schools in each of the following three groups:
    a. The 20% of schools with the highest percentage of BIPOC students AND the highest percentage of *economically disadvantaged* students.
    b. Schools within +/- 10% of the district average percentage of BIPOC students AND within +/- 10% of the district average percentage of *economically disadvantaged* students.
    c. The 20% of schools with the lowest percentage of BIPOC students AND the lowest percentage of *economically disadvantaged* students.
9. The total number and percentage of students in each of the three groups (Step 8).

The Equity-Based Representative Sample must include, at minimum, one school from each group (Steps 8a, 8b, and 8c).

For districts with 35 or more schools, the Equity-Based Representative Sample must include at least 10 percent of schools. Add schools to the sample as follows:

Sample Size and Composition, Based on School District Size

Additional School (Total Schools in District)	Assigned Group
School #4 (35–44 schools)	Group 8a
School #5 (45–54 schools)	Group 8b
School #6 (55–64 schools)	Group 8c
School #7 (65–74 schools)	Group 8a

School #8 (75–84 schools)	Group 8b
School #9 (85–94 schools)	Group 8c
School #10 (95–104 schools)	Group 8a
School #11 (105–114 schools)	Group 8b
School #12 (115–124 schools)	Group 8c

~~*Higher Education Institutions*~~

~~List the buildings where students are regular occupants, by type: dormitory, lecture hall, dining hall, etc. Include in the Equity-Based Representative Sample an equal number of each building type, with no fewer than three or 10 percent (whichever is higher) of buildings in the sample.~~

~~Identify *equity* gaps at the institution through demographic and socioeconomic data disaggregation using a *disproportionate impact* method, such as the following:~~

- ~~percentage point gap index,~~
- ~~80% rule index, or~~
- ~~proportionality index.~~

~~For each *equity* gap identified, include in the sample any building where an identified group is disproportionately represented above the baseline. If no buildings have disproportionate representation of an identified group, ensure that the identified group is represented in the buildings selected for the sample.~~

Appendix 3: Cleaning Personnel Training Curriculum

Safety Training

Provide cleaning personnel with safety training that covers, at minimum, the following topics:

- reducing and preventing *ergonomic* injuries,
- avoiding exposure to hazardous materials, including in chemistry laboratories,
- properly storing and disposing of hazardous materials,
- properly using and disposing of PPE,
- properly rinsing and disposing of leftover cleaning products and empty containers,
- safely using powered equipment,
- avoiding exposure to bloodborne pathogens, and
- preventing slips and falls.

Site-Specific Training

Provide cleaning personnel with site-specific training that covers, at minimum, the following topics:

- cleaning procedures for their assigned facilities,
- the facility-specific cleaning plan,
- measures for protecting *vulnerable population*s, and
- communication protocols for hazardous events.

Appendix 4: Approved Third-Party Certifications for Consumable Goods Purchasing

Product Category	**Approved Certification**
General-purpose (all-purpose) cleaners and degreasers	• Green Seal • Safer Choice • UL Ecologo
Bathroom cleaners and deodorizers (includes hard surface, toilet, and urinal)	• Green Seal • Safer Choice • UL Ecologo
Glass, mirror, and window cleaners	• Green Seal • Safer Choice • UL Ecologo
Carpet, rug, and upholstery cleaners (includes routine and spot-	• Green Seal

cleaning products)	• Safer Choice
Floor care tools and accessories (mop heads)	• Green Seal
Floor cleaners, strippers, sealers, and finishes	• Green Seal • Safer Choice
Specialty cleaning products, including • metal polish • furniture polish, • graffiti remover • gum remover • lime and scale remover • mildew removers • drain and grease trap additives • odor removal • dish soap	• Green Seal • Safer Choice
Hand soaps and alcohol-based hand *sanitizing* products	*Hand soaps* • Green Seal • UL Ecologo *Alcohol-based hand sanitizing products* • Green Seal
Laundry care products	• Green Seal • Safer Choice
Sanitary paper products, including • toilet tissue • facial tissue • paper towels • napkins	• Green Seal • UL Ecologo
Printing and writing paper products	• Green Seal • UL Ecologo
Paints, coatings, stains, and sealers	• Green Seal, GS-11 Edition 4.0