



Identifying Health and Safety Hazards in Educational Settings: A Building Walkthrough Toolkit

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OVERVIEW

A wide variety of health and safety hazards pose risks to staff and students in educational settings. Staff and other members of the community can play a crucial role in recording, reporting, and resolving such hazards by conducting building walkthroughs of indoor spaces, such as classrooms, cafeterias, gyms, libraries, and locker rooms. They can identify poor ventilation; inadequate or ineffective air filtration systems; shortages of personal protective equipment (PPE); a lack of safe cleaning and disinfecting supplies; the presence of rodents, insects, and other pests; and other problems.

The National Education Association (NEA) created the building walkthrough toolkit to improve the health and safety of students and staff however, it is still an employer’s fundamental responsibility to provide a safe and healthy environment.

The building walkthrough toolkit is intended for all educational settings—from preschools to institutions of higher education. The toolkit was designed to be used in public schools and other educational settings and features hazard mapping guidance, health surveys, and comprehensive checklists for building walkthroughs related to mold, indoor air quality (IAQ), building ventilation, and construction and renovation.

A LOOK INSIDE THE BUILDING WALKTHROUGH TOOLKIT

Hazard identification is essential for any health and safety program. Walkthroughs are a primary means for identifying hazards in the workplace. This toolkit equips members with resources to document, record, and report unhealthy and unsafe working conditions. There are several resources inside the toolkit, including:

1. **Building Walkthrough Checklist:** This checklist covers a variety of health and safety hazards found in educational settings, including conditions that cause infectious diseases, hazardous chemicals, asbestos, bloodborne pathogens, ergonomic hazards, and more.
2. **Building Ventilation Walkthrough Checklist:** This checklist assists members concerned about the airflow and ventilation in buildings.
3. **Indoor Air Quality (IAQ) Checklist:** This checklist is for educational settings experiencing IAQ issues.
4. **Mold Checklist:** Mold growth results from excessive moisture or water build-up in building materials, furnishings, etc. This checklist dives into mold-related issues potentially found in buildings.
5. **Construction and Renovation Checklist:** Renovation, repair, and construction create the potential to introduce new health and safety hazards. This checklist helps identify potential hazards.
6. **Hazard Mapping:** Through this exercise, members who work or study in a building can create a visual representation of the general health and safety hazards and health symptoms in the workplace. It can provide insight into where and what hazards exist.
7. **Health Survey:** Documenting conditions through a health survey is another way to identify health and safety issues. A health survey will identify and compile health complaints that affect building occupants, likely stemming from health and safety problems in the building.
8. **How to Evaluate Building Ventilation Using Carbon Dioxide Monitors:** This document explains how to use CO₂ monitors and interpret the results effectively. It outlines cautions when using results to make decisions about IAQ and includes a checklist for selecting CO₂ monitors and a table to track CO₂ measurements.
9. **NEA Leadership Competencies:** NEA leadership competencies are intended for the benefit of all current and emerging leaders, regardless of role, level, membership type, or experience. The competency domains are interconnected and present a well-rounded picture of the knowledge, skills, and abilities NEA believes equips educators to lead and create systemic change in public education.



Use the NEA Building Walkthrough Toolkit to identify and mitigate health and safety hazards in schools and institutions of higher education and to capitalize on opportunities with this work to enhance the visibility and power of the local association well beyond those goals. Organizing and engaging current and potential members on health and safety issues not only strengthen the association, but they amplify educators’ voices and bolster relationships with employers and local communities. At the same time, this work creates opportunities for leaders to hone their skills and for members to take on leadership roles in buildings and on campus grounds, on health and safety committees, and in so many other ways.

Who Should Conduct the Walkthrough?

The local association, joint labor-management health and safety committee, a UniServ field representative, or staff team can conduct the inspection using checklists from the toolkit. While it is important to have someone in the group who is familiar with the operation of the building—such as custodial/maintenance services worker or an HVAC technician—to be part of the walkthrough, anyone can participate. **People don’t have to be health and safety experts to engage in the process.**

It may be advantageous to conduct joint inspections with district administrators and the local association. When both parties see issues firsthand, they can resolve them on the spot. On the other hand, a local association-only walkthrough allows for privacy and the ability for team members to raise concerns without fear of retaliation.

The local association should consider negotiating collective bargaining language on walkthroughs that guarantee and defines association participation and specific parameters, such as frequency and ground rules. Where collective bargaining does not take place, other forms of labor-management collaboration can be used to achieve similar goals. Seeking opportunities to work with the employer to create a district policy is another alternative where collective bargaining does not take place. When appropriate, also consider using health-and-safety-related grievances.

What Are Other Approaches to Consider When Conducting Walkthroughs?

Health and safety committees can conduct walkthroughs using the checklist included in this toolkit. Another approach is distributing the health survey, conducting the hazard mapping exercise, and/or completing the room- and/or job/function-specific checklists with staff. Once complete, the responses are compiled and mapped on a floor plan. This initial assessment provides a profile of conditions that the health and safety committee or team can address or focus on during the walkthrough. It may also reveal patterns of issues and show the connection between hazards and health symptoms.

Health and safety committee members should encourage members to document their health symptoms by keeping a personal log (when and where they occur, including room/area, time of day, their specific natures, frequency, severity, etc.). They should also be encouraged to note if symptoms go away when the individual is away from the workplace for the weekend or an extended period and if symptoms started after a change at the workplace, such as a building renovation.

Consider interviewing staff, parents, and students to add insight to the findings. More information and data will help reveal patterns and build a case to address where issues are present.

BEFORE THE WALKTHROUGH

- 1) Obtain available floor plans from the administrative office or district administrator. The floor plans can be simple fire exit plans that are accessible and easy to read. The health and safety committee or team members should review them and agree on which one to use as a reference during the walkthrough. As the committee or team identifies health and safety issues during the walkthrough, they should mark the location, type of hazard, and severity on the floor plan and/or note the location column on the checklist.



Currently, the Occupational Health and Safety Administration (OSHA) has 22 State Plans covering both the private sector and state and local government workers, and there are six State Plans covering only state and local government workers. State Plans are OSHA-approved workplace safety and health programs that set workplace standards and are operated by individual states. Federal plans covering the states do not provide OSHA coverage to public sector workers.

[State Plans | Occupational Safety and Health Administration \(osha.gov\)](#)

- 2) Request and review available documents related to the area of consideration, collecting records of any previous inspections, injury and illnesses reports, incident investigation reports, sampling results/lab analysis reports, safety data sheets (SDS), work procedures and equipment information, and OSHA 300 logs (or equivalents state occupational health and safety department records), if applicable. The health and safety committee should request any plans for asbestos, lead paint, radon, emergencies, and other hazards. Asbestos Management Plans are required by law and can be helpful in identifying areas in the building that are considered occupied spaces.



The OSHA 300 log is a form for employers to record reportable injuries and illnesses that occur in the workplace. It's a valuable tool for workers and local associations to use in evaluating the types, frequency, and severity of workplace injuries and illnesses. When school staff or an authorized staff representative submits a request for the OSHA 300 logs, employers must provide these documents by the end of the next business day.

[Recordkeeping - Recordkeeping Forms | Occupational Safety and Health Administration](#)

- 3) The local committee or team should decide on an approach for the walkthrough:
 - Will it focus on current health and safety concerns? For example, those issues identified in the checklist and health surveys distributed to staff beforehand. Or will it start from scratch using a checklist provided in this toolkit?
 - Will it cover specific building areas or review particular types of hazards? Or will it be a comprehensive walkthrough covering the entire worksite to address all issues?

- Will it evaluate worksite conditions only or worksite conditions and work practices? For example, will the committee or team observe staff while they complete job tasks?
 - How much time will it take? The length of time the committee or team has may impact what area(s) and/or hazards are covered; for example, if the committee or team has two hours for inspection, they may decide to inspect specific hazards in a limited area or one area of the worksite at a time.
- 4) All staff should be informed of the specific day(s) and time(s) when a walkthrough(s) will take place. Advance notice will minimize fear and confusion among staff. We strongly recommend that the health and safety committee send out a brief memo to staff or hold a meeting that explains the reasons for conducting the walkthrough(s), what the committee or team hopes to accomplish, and a commitment to send a follow-up memo that will summarize results and outline next steps.

What to Bring on the Walkthrough

- **Appropriate Checklist(s):** Checklists specific to particular hazards will guide the walkthrough or room assessment.
- **Notebook, Clipboard, Pen/Pencil:** To fill out checklists, take notes, and document findings.
- **Floor Plan:** This will help to mark the specific locations of hazards in different rooms, closets, and mechanical rooms in the building.
- **Earplugs, Nitrile Gloves (non-latex, no-powder), and Tyvek Booties:** Health and safety committee members may need PPE in any area where hazards may be present. (They should wear booties when walking through a construction site to avoid tracking contaminated soil into the building or personal vehicles). Do not enter unsafe spaces. Before entering a space, it's important to know the potential hazards in the area and be informed of what to avoid (for example, review the Asbestos Management Plan in advance). Facilities representatives should accompany the committee when entering non-occupiable areas such as the roof, storage, and mechanical spaces.
- **Resources to conduct a tissue Test (a retractable tape measure, yardstick, or carpenter ruler with tissue paper taped to the end):** This will help determine if the air is being supplied to or exhausted from a room through the appropriate vents.
- **Camera/Cellphone:** Photos will help document findings—what is found today may not be what is found tomorrow.
- **Flashlight:** Health and safety committee members may need to look under sinks, in walls, in the crawlspace above the ceiling, or in other dark areas.

- **Meters/Equipment:** Depending on the nature of the walkthrough, members should note the CO₂ monitor, temperature, humidity, noise, and moisture. They should practice using monitors beforehand and properly calibrate monitors before use.



The National Institute of Occupational Safety and Health (NIOSH) has a noise meter that can be downloaded on smartphones and used for walkthroughs: [NIOSH Sound Level Meter App | NIOSH | CDC](#)

DURING THE WALKTHROUGH


Utilize the checklists as a guide and note any observations on them and/or on the floor plan. Walkthrough members should use all their senses, listen to people and equipment, look for hazards or signs of hazards, smell for odors, and feel for dampness, drafts, and extreme temperatures. If building occupants are in the room and the committee or team can survey them without disrupting their work, they should ask questions about the area, including whether occupants experienced any health symptoms or have any health and safety concerns.

Walkthrough Best Practices

Below are a few best practices when conducting a walkthrough:

1. Interview and talk to a cross-section of staff throughout different job classifications, parents and caregivers, and students to add more insight and context to the findings.
2. Inspect work areas at different times and on different days. Remember, walkthroughs will only reveal conditions and hazards on the day and time of inspection.
3. Identify all types of hazards. This includes hazards that cause acute effects (immediate)—like a wet floor that can cause slips, trips, and falls—and those that have long-term (chronic) effects, like asbestos exposure.
4. Document, document, document! Document observations by:
 - Taking clear notes, photos, videos, or drawings;
 - Recording all questions and answers;
 - Writing down chemical product names from labels and amounts and the type of equipment and processes used to complete various job tasks; and
 - Keeping detailed notes in an organized central location.
5. Utilize specific reading equipment for measuring concentrations of CO₂, temperature, humidity, noise, and moisture.

How to Fill Out the Checklist

Toxic Materials		YES	NO	N/A	ROOM NO.	COMMENTS	CORRECTIVE ACTION REQUIRED	CORRECTIVE ACTION IN PROGRESS	CORRECTION COMPLETED
1	Is there a written hazard communication (“Right to Know”) plan and training in place?	✓			N/A	The walkthrough team received the plan and training records. Copies will be kept in a central location.	N/A	N/A	N/A
2	Have nontoxic products been considered to minimize health risks (e.g., safer alternatives)?		✓		Custodial Closet (2 nd floor)	Bleach was used to clean and disinfect classrooms. Doors opened to allow fresh air in, but windows were kept closed.	<p>Research safer alternatives. Find products with the logo below.</p>  <p>If not possible, find disinfectants with active ingredients, such as citric acid, L-lactic acid, ethanol, isopropanol, peroxyacetic acid, sodium bisulfate, chitosan, and hydrogen peroxide.</p>		Bringing this to the attention of the health and safety committee. The goal is to correct the issue next month (6/10/22).

If the item is not applicable to the area/building, mark with an ✘

Mark with an ✓ if staff and the district are working on mitigating the hazard (the correction is already in progress) and add the date of when the correction is expected to be completed.

AFTER THE WALKTHROUGH

After conducting a walkthrough, it is crucial to recommend solutions to mitigate the hazards.

List all possible corrective actions and improvement options in the **Corrective Action Required** box in the checklist. Be sure to write the target date to complete the correction and for follow-up to ensure the hazard is removed or mitigated.



The Environmental Protection Agency (EPA) has a Safer Choice-Certified Products List on its website for safer cleaning alternatives that can be used in educational settings, to learn more visit: [Safer Choice | US EPA](#)

Sharing the corrective action findings and follow-up plan with appropriate district administrative staff, school boards, and other governance bodies can be handled differently, such as through the health and safety committees, grievances, and collective bargaining.

Prioritizing Concerns

Hazards identified should be prioritized as follows:

1. Address first the concerns that directly impact the health or safety of staff and students and those that affect the largest number of people. Where are occupants getting injured the most or experiencing the most symptoms? Which health and safety issues are the most important for staff and students?
2. Resolve any short-term projects in-house (e.g., changing HVAC filters regularly).
3. Resolve any long-term projects in-house with sustained efforts (e.g., creating a chemical inventory and removing halide and mercury vapor lights).
4. Address the projects that require substantial funding, resources, and outside assistance (e.g., replacing the roof or asbestos, lead, or caulk removal).

Make a to-do list of unresolved concerns and work with administrators to incorporate it into the educational setting's plan for implementing long-term health and safety improvements. After prioritizing the concerns, the committee or team should recommend solutions. Follow up to ensure that the changes are implemented, and update staff and parents/caregivers by sending follow-up memos summarizing the results and outlining the next steps.

The local association, the committee, or the team can reach out to potential allies that can work together on common issues. Potential allies are parents/PTA/PTO, unions, community organizations, local politicians, environmental groups, civil rights leaders, media, and public health departments.

NEA LEADERS ADVOCATING FOR HEALTHY AND SAFE SCHOOLS



The NEA believes educators are leaders and uniquely positioned to impact students and communities in a positive way. As the landscape of public education continues to evolve, educators are faced with difficult decisions and challenges impacting themselves, their worksites, and their communities. The NEA is striving to identify and develop leaders who will be able to meet these challenges, embrace change, deal with crises, and improve the health and safety of educational settings for all students.

It is more important than ever for every educator to see themselves as a leader and to grow their knowledge, skills, and abilities in leadership development through the seven leadership competency domains: advocacy; communication; governance and leadership; leading our professions; organizing; social-emotional intelligence; and strategy and fiscal health. These competencies prepare NEA members to lead relevant, thriving associations and become world-class education leaders in their professions.

Being a leader for healthy and safe schools requires understanding leadership development and the seven NEA leadership competency domains. The NEA Leadership Competencies Document in the toolkit elaborates on identified leadership skills that members have the opportunity in gaining by engaging and implementing the toolkit in their workplace. To find resources to assess your knowledge in these areas, grow your skill sets, and lead successfully, visit nea.org/leadershipdevelopment.

FREQUENTLY ASKED QUESTIONS

Where can I find more information about IAQ?

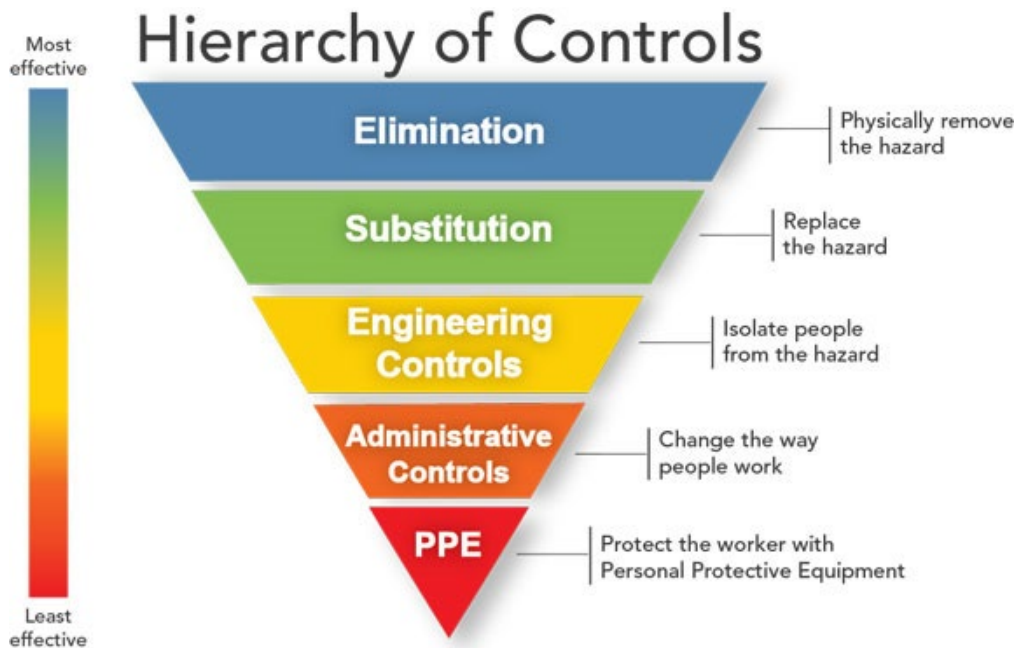
EPA created [IAQ Tools for Schools Action Kit](#) that demonstrates how to carry out a practical plan to improve indoor air problems using straightforward activities and in-house staff. The action kit has 11 checklists to engage school staff and the community in the process of school inspections and sustaining an IAQ management program. Each checklist comes with a background document that describes the purpose of the specific checklist. The documents may be downloaded and tailored or updated to reflect activities at a particular school or institution.

What should I include in the Corrective Action Required box?

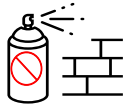
The next step after identifying the hazard is to eliminate or mitigate the hazard by implementing the **hierarchy of controls** in the workplace. List the possible control measures in the Corrective Action Required box in the checklists. They should exhaust all possible corrective actions, including engineering controls, administrative controls, and PPE. Figure 1 illustrates the hierarchy of controls. The concept behind the hierarchy of controls is that the most effective control measures are **toward the top of the inverted triangle**.

In many scenarios, implementing elimination and substitution controls are not always possible. Therefore, defer to the next most effective control and ensure to exhaust all engineering controls, administrative controls, and PPE.

Figure 1. Hierarchy of Controls



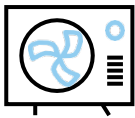
Hazard: Toxic chemicals are used in the workplace.



Elimination: Eliminate the hazard or remove the danger. *Remove a chemical from the workplace that can cause severe burns to the skin.*



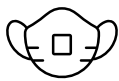
Substitution: Replace something hazardous with something non-hazardous. *If elimination is not possible, substitute the chemical with a safer alternative to reduce the severity of the health effects. For example, replace solvent-based paint with water-based paint.*



Engineering Controls: Introduce equipment, including a mechanical device or process, or change the work environment to separate workers from hazards. *Increase ventilation in vocational rooms where toxic chemicals are used.*



Administrative Controls: Develop procedures and processes for working safely under anticipated conditions. *Develop guidelines and training on how to use specific chemicals. Provide access to SDSs.*



PPE: Equip workers with protective gear designed to reduce the risk and severity of injuries and illnesses. *Provide gloves, respirators, and safety goggles/safety glasses.*

Please note that the corrective actions listed above **are not an exhaustive list**. Depending on the working conditions, more corrective actions may be required if specific control measures are not already in place. The goal is to use **a combination of all types of controls** to mitigate the hazard. Be cautious and avoid using controls that may introduce new hazards, for example, hearing protection can make it challenging to hear backup alarms on vehicles.

NEA greatly appreciates the New Jersey Education Association's building walkthrough materials and the Environmental Protection Agency's Tools for Schools checklists on which we based some of the content in our toolkit.

For more information about this toolkit, reach out to Eunice Salcedo, senior health and safety specialist, at healthandsafetyprogram@nea.org.