



Safety Checklist Program for Schools

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The Safety Checklist Program provides information needed by schools to maintain safe classrooms, shops, and labs for teachers and students in career-technical education. This information can also be used by colleges and universities with occupational safety and health programs. The key to preventing injury and illness of school employees and students, and protecting the environment, is to establish a safety and health and environmental safety program.



How can the safety checklist program benefit schools?

The Safety Checklist Program can benefit schools by helping them do the following:

- Improve the safety and health environment in school
- Prevent injuries and illnesses among faculty and students
- Increase occupational and safety and health and environmental safety awareness in school
- Find out which Federal agencies regulate environmental safety and health in career-technical education programs
- Identify regulations that may apply to public secondary school career-technical classrooms, shops, and labs (only the regulations that pertain to settings on school grounds are addressed)
- Set up a checklist program that will help teachers do a safety and health hazard analysis for each classroom, shop, and lab (each checklist is designed to correspond to specific environmental, safety, and health regulations so teachers will also be able to determine whether they are in compliance)
- Prepare for and participate in safety and health inspections
- Help students learn about (1) the regulations pertinent to particular classrooms, shops, labs, processes, and activities and (2) the benefits of using checklists to determine compliance
- Detect areas that need improvement in the school's occupational safety and health and environmental health programs
- Find sources for more information about regulations, technical assistance, and educational materials

The Safety Checklist Program was modeled after a manual developed in New Jersey entitled Safe Schools: A Health and Safety Check.

NIOSH Safety Checklist Program

The program contains four chapters and several appendices. Each chapter builds on the preceding one to develop a workable plan for implementing a checklist program.

Chapter 1: Making Sense of Regulations



Understanding Regulations

In dealing with regulations, it is important to know the levels of government, the enforcement agencies, their vocabulary, who or what they protect, and what they regulate before you can understand the regulations.

Regulations are created by Federal, State, county and municipal governments. States, counties and municipalities must comply with all Federal regulations. Counties and municipalities must comply with all State regulations and so on. In most cases, States, counties, and municipalities may add to existing higher level regulations or may issue new regulations in areas where no higher level regulations exist. You may find, therefore, differing regulations as you move from one area to another.

Federal, State, county, and municipal agencies or governing bodies have the power to issue and enforce regulations. These groups include the Federal Occupational Safety and Health Administration (OSHA), State agencies, county boards of health, municipal boards of health, or town councils. It is beyond the scope of the Safety Checklist Program to address State, county, or municipal regulations.

Federal statutes or acts are passed by Congress and become part of the U.S. Code. Regulations may then be issued and enforced by a designated agency charged with that responsibility. Federal regulations are first issued in the *Federal Register*. After a public comment period, final Federal regulations are compiled in the *Code of Federal Regulations* (CFR) and can be cited by title, part, and section. Thus, 29 CFR 1910.120 refers to Title 29, Part 1910, section 120.

The laws are designed to protect private sector employees, public employees (Federal, State, county, and municipal employees, including public school teachers), private and public school students, the general public, and the environment. Each agency has jurisdictional responsibilities for promulgating and enforcing regulations to protect these groups. In addition, each agency has defined areas of hazards that it regulates.

This arrangement of regulations can cause confusion about what to do and whom to call about complying with the multitude of regulations. The next section, Overview of Regulatory Agencies, outlines what hazards each organization regulates in career-technical educational programs in public schools.

U.S. Department of Labor (DOL) Employment Standards Administration/Wage and Hour Division

The Employment Standards Administration (ESA) defines and addresses fair labor standards, minimum hourly wages for agriculture and non-agriculture workers, prohibitions to hazardous work for minors, maximum hours of employment for students during the school year and off school. Child Labor rules and regulations for young workers under age 18 are issued and and governed by the [Wage and Hour Division](#) which is under ESA and U.S. DOL. Student-workers depending on their age are limited to the number of working hours, and are prohibited from working at certain types of hazardous jobs ([Hazardous Orders](#)). Additional restrictions to working hours and type of jobs may be [imposed by individual States](#) . Students enrolled in a career school, apprenticeship, or other student-learner programs may be exempt from some Hazardous Orders.

DOL Regulations for Young Workers:

- [Hours students allowed to work](#)
- [Jobs students allowed to work](#)
- [Prohibited Occupations for Non-Agricultural Employees](#)
- [States’ Youth Employment Rules](#)
- [Exemptions from Child Labor Rules](#)

Overview of Regulatory Agencies

Level	Agency	Hazards addressed	Jurisdiction
Federal	U.S. Department of Labor (DOL) — Employment Standards Administration — Wage and Hour Division	Young workers prohibited to work in certain types of hazardous jobs Limits to number of working hours	All workers especially young workers under age 18
Federal	U.S. Department of Labor — Occupational Safety and Health Administration (OSHA)	Safety and health hazards in the workplace	Private and Federal employees
Federal	U.S. Environmental Protection Agency (EPA)	Environmental, safety, and health hazards	General public and the environment

Level	Agency	Hazards addressed	Jurisdiction
State	State Department of Labor (DOL)	Safety and/or health hazards in the workplace	State, county, and municipal employees (sometimes States assume responsibility for private employees as well)
State	State Department of Health (DOH)	Health hazards in the workplace and selected health-related services to the general public	State, county, and municipal employees and the general public
State	State Department of Environmental Protection (DEP)	Environmental, safety, and health hazards	The general public and the environment
State	State Department of Education (DOE)	Environmental, safety, and health hazards	Students and teachers in private and public schools
State	State Department of Community Affairs (DCA)	Fire and building construction safety	The general public
Municipal	Municipal boards, departments, etc.	Depends on the code or ordinance	Residents and workers in the municipality

Occupational Safety and Health Administration (OSHA)

OSHA is a Federal Agency that promulgates and enforces standards dealing with occupational safety and health as they apply to private and Federal employees in the workplace. The legislative mandate for OSHA comes from the Occupational Safety and Health Act of 1970. Under the Act, OSHA does not have jurisdiction over State and local government employees, including those in public schools.

Section 18 of the Occupational Safety and Health Act allows States to develop OSHA-approved State plans giving the State regulatory and enforcement responsibilities for occupational safety and health within its borders (refer to the section “Federal Government Agencies, OSHA State-Plan States” in [Appendix A: Resource Agencies and Organizations](#). Section 18 requires these “State-plan” States to have standards and enforcement that are identical to (or at least as protective as) Federal OSHA standards. These State plans are also required to extend their coverage to all State and local government workers, including those in public schools. Twenty-six States have OSHA-approved State plans. These States, in addition to enforcement programs, have extensive voluntary compliance programs, including on-site consultation services available to public sector employees.

In States under Federal OSHA without State plans, OSHA has no authority to inspect or enforce standards in public schools. However, the local Federal OSHA office may be able to provide hazard recognition assistance and technical support. Extensive compliance assistance information is also available on [OSHA’s Web site](#) [↗](#) and in Federal and State publications. In addition, the U.S. Environmental Protection Agency (EPA) may enforce certain OSHA standards, such as Hazardous Waste Operations (29 CFR 1910.120) or relevant EPA standards in public schools.

When students are compensated for work done outside the school, as they are in cooperative educational programs, they are defined as workers under the Occupational Safety and Health Act or an OSHA-approved State plan. In such cases, the students will be covered by the standards.

OSHA issues standards in the *Federal Register* that are compiled in the *Code of Federal Regulations* (CFR), described below. The OSHA-approved State plan states issue-comparable standards that are identical to or “at least as effective as” Federal OSHA’s standards:

- 29 CFR 1910 for General Industry Standards
- 29 CFR 1915 for Shipyard Employment
- 29 CFR 1917 for Marine Terminals
- 29 CFR 1918 for Longshore Safety
- 29 CFR 1926 for Construction Standards

- 29 CFR 1928 for Agricultural Standards

U.S. Environmental Protection Agency (EPA)

The [EPA](#)  is a Federal agency that promulgates and enforces regulations dealing with protection of the environment and the general public. It covers areas such as collection and disposal of hazardous waste (including regulated medical waste), air pollution, water pollution, drinking water quality, pesticides, solid waste, hazardous waste sites, hazardous material releases that threaten the environment, asbestos in public schools, noise pollution, and many other areas. EPA receives legislative direction from numerous acts or statutes. The most notable of these include:

- Toxic Substances Control Act (TSCA)
- Resource Conservation and Recovery Act (RCRA)
- Clean Air Act Amendments of 1990 (CAAA)
- Clean Water Act (CWA)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Emergency Planning and Community Right To Know Act as part of the Superfund Amendments and Reauthorization Act (SARA)
- Safe Drinking Water Act (SDWA)

All regulations issued by EPA are compiled in Title 40 of the CFR. EPA does not routinely inspect and enforce these regulations in schools. Most State environmental agencies have assumed responsibility for adopting their own regulations and enforcing Federal EPA regulations. The only laws potentially involving direct EPA enforcement in schools are the RCRA (which regulates hazardous waste), the Asbestos Hazard Emergency Response Act (AHERA), and Title VI of the Clean Air Act dealing with stratospheric ozone protection.

State Department of Labor

A State normally has an agency that can promulgate and enforce safety regulations as they apply to State, county, and municipal employees in the workplace. Students are not covered. However, a State legislative mandate is necessary for these regulations to be developed. Some States have “adopted by reference” the OSHA general industry standards, construction standards, and agricultural standards for public employees. “Adoption by reference” means that a regulatory agency requires compliance with regulations already issued by another agency. Some States have also become a State OSHA program, taking on responsibility for enforcing Federal OSHA regulations in their State through the Department of Labor.

State Department of Health

A State also has a department of health that promulgates and enforces health regulations. Its activities must also be directed by legislative mandate. Some State departments of health assist their department of labor in developing and enforcing occupational health regulations in the workplace as they relate to employees.

The Department of Health also typically issues regulations dealing with retail food establishments. Inspectors enforcing retail food laws are typically employed by county or municipal health departments. Information about food regulations should be directed to the county or municipal health department serving your school area.

State Department of Environmental Protection

States typically have a department of environmental protection that promulgates and enforces regulations dealing with the protection of the environment and the general public. It often covers the same areas addressed by EPA—such as collection and disposal of hazardous waste (including regulated medical waste), air pollution, water pollution, drinking water quality, pesticides, solid waste, hazardous waste sites, hazardous material releases that threaten the environment, environmental noise pollution, radiation, and many other areas. Most States are authorized by the EPA to enforce almost all EPA regulations. States normally issue their own regulations incorporating the Federal regulations.

State Department of Education

The State Department of Education issues regulations covering all private and public elementary and secondary schools. Some State departments of education have issued regulations dealing with environmental and occupational safety and health for students. State departments of education may also issue regulations related to school construction.

Note: Schools and students may be subject to other restrictions besides regulations. School districts and the State Department of Education may have policies or guidelines that control environmental, safety, and health programs. Although they do not have the force of law, they have the same effect. It is important to understand what is required by law and what is required by policy. By knowing the source of the requirement, it is easier to find the party best able to answer any questions about the requirements.

Department of Community Affairs

Typically, an agency such as the Department of Community Affairs in a State promulgates and enforces building and fire safety regulations. Most States have adopted the Building Officials and Code Administrators (BOCA) codes for buildings and the National Fire Protection Association Codes for fire safety.

Putting Regulations into Practice

Regulations are written to prevent certain hazards in specific situations or to establish procedures to ensure safe and healthful conditions. However, not every hazard or situation has a corresponding regulation. The inspector enforcing regulations is primarily interested in preventing the hazard and uses regulations as a tool to achieve this goal. The inspector’s job is to ensure that everyone is made aware of potential problems and that these problems are corrected. The inspector looks at the seriousness of the hazard before citing violations or issuing fines.

It is important to have some understanding of the inspector’s purpose and method of operation. Refer to [Appendix C: Suggestions for Facilitating Inspections](#) of this manual for more information.

To establish that a violation exists, the inspector refers to a particular regulation or statute. The regulation must be applicable to the situation encountered during the inspection. The inspector can only enforce regulations from an agency he or she officially represents. Observed violations of regulations from other agencies may be referred to the appropriate enforcement official or the inspector may simply make a recommendation that the violation be corrected.

In some cases, the inspector may observe a hazard needing correction for which there is more than one applicable regulation. An experienced inspector will cite the regulation which most closely indicates the violation and the hazard.

In some cases, the inspector may observe a hazard needing correction for which there is no regulation. The inspector may cite a very general regulation, if it exists, or may use a specific statutory provision for this situation such as the “General Duty Clause” that exists in the OSHA Act. All violations of general regulations and statutes should be supported by additional detailed information about the nature of the violation. Often standards issued by the American National Standards Institute (ANSI), the National Fire Protection Association (NFPA), the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), and other organizations are cited in support of general violations.

In some cases, regulations may be quite specific and clear. In other cases, they may be very broad in scope. Sometimes an inspector must use professional judgment in making a decision as to what the regulation means and whether a particular situation is a violation of that regulation. In some cases, the enforcing agency has taken an official position about what a particular regulation says. A cited party who disagrees with an agency enforcement action can take the enforcement agency to court. If this happens, the court interprets the regulation.

After an inspector has established a violation, the violation must be corrected (or abated) in a defined time period. The abatement time period is usually agreed upon by both the enforcing agency and the affected party. There may or may not be an associated fine, depending on the regulations of the enforcing agency and the seriousness of the hazard. Defined procedures exist for contesting the violation and/or the fine. Fines and procedures for contesting the violation are often controlled by the underlying statute or act and the enforcement agency.

The number and changing nature of regulations makes them difficult to track. The bottom line, however, should be the intent of the law rather than the letter of the law. If a good effort is made to carry out the intent or purpose of the law, the occasional unintentional violation may not be significant.

Addresses and telephone numbers are provided in [Appendix A: Resource Agencies and Organizations](#) for Federal agencies with environmental, safety, and health regulations applicable to career-technical educational programs. Contact the appropriate Federal and State agencies for copies of regulations, training materials, and help with interpreting the regulations. In some cases, these agencies may conduct training at your school.

Overview

The key to preventing harm to school employees, students, and the environment is to establish a good occupational safety and health and environmental safety program.

A good program may take years to put in place, but the guidelines below are a good place to begin. Use the items next to the boxes to create a checklist of your progress. Start with individual items or parts of items. The guidelines are divided into five sections:

- Assure management commitment
- Assure employee and student involvement
- Identify and prioritize potential hazards
- Eliminate hazards
- Train employees, students, and management

The occupational safety and health and environmental safety program should be tailored to the needs of your school or organization. The program may be district-wide or developed solely for career-technical and career orientation classes, depending on school resources. Small school districts with limited resources have formed safety and health cooperatives with other districts to help manage all or parts of their programs.

Assure Management Commitment

- **Top administration must be involved**

The school board, superintendent, school principal, and top school administrators should all be leaders in implementing the program. They should stay informed and involved.

- **Develop a written safety and health policy**

Top administration should issue a written policy supporting a safe and healthy environment in the schools. This policy may take the form of one or more policy statements or a policy manual that covers issues ranging from safety procedures to energy conservation. It should be posted and/or issued to all employees and students.

- **Assure adequate personnel resources**

Assign appropriate individuals responsibility for the functions listed in the remaining sections of this chapter. Make sure they are given adequate time to do the job. It is important to select people who are competent and motivated, and who have the skills and adequate resources to do the job.

- **Assure adequate financial resources**

Money must be allocated for the safety and health program. Make sure the appropriate parties (school board, administration, teachers) plan for environmental and safety needs during the budget process, so that there are funds to support these programs.

- **Evaluate Program performance regularly**

The occupational safety and health and environmental safety program should be a part of all performance reviews, including those of top administration, teachers, and students. Acknowledge those who have been involved in identifying and correcting hazards and working safely.

Assure Employee and Student Involvement

- **Establish a Hazard Prevention Committee**

A Hazard Prevention Committee should be composed of representatives of management, school employees, and perhaps students. For such a committee to succeed, it should be selected carefully; have a clear idea of its mission, power, and functions; and be skilled in conducting effective meetings. This committee can do the following:

- Take on many of the functions described below that are too much for any one person
- Seek immediate input from all areas of the school, such as the classroom, maintenance, and purchasing
- Brainstorm by creatively combining and modifying ideas from many perspectives
- Improve communication among the various representatives
- Prioritize hazard controls, training, and other activities in a way that is satisfactory to all parties
- Establish a procedure for reporting potential hazards using a written form.

- **Communicate regularly**

Use newsletters, bulletin boards, pay check envelopes, and class time to communicate new procedures and new safety assignments and to introduce new committee members. Keep the program on people's minds. Make safety, health, and the

environment a regular item on the agenda of staff, board, union, and PTA meetings. Post committee minutes, reports, surveys, and (especially) memos referring to problems, solutions, and achievements.

- **Develop a hazard-reporting procedure**

Students and employees should be encouraged to look for and report potential hazards to the Safety and Health Coordinator, or to the chairperson of the Hazard Prevention Committee. Students may also report hazards to a teacher, the School Principal, or to another responsible adult. The person who discovers the hazard should then fill out the designated form and submit it to the Safety and Health Coordinator for follow-up action. Students should fill out this form with the help of the Safety and Health Coordinator.

Identify and Prioritize Potential Hazards

The following functions should be performed on a regular basis by individuals or committee members assigned to the task. You may wish to keep computerized records of these activities.

- **Complete the checklists in the Safety Checklist Program manual**

[Chapter 3: Implementing a Safety Checklist Program](#) will help you in using the checklists. The checklists can help you to identify hazards and determine whether or not your organization is in compliance with applicable safety and health regulations.

- **Conduct walkthrough inspections**

Using the checklists also provides an opportunity to interview employees and students about their concerns. Let them know the outcome of previous concerns and hand out new hazard report forms. For ideas about ways to use the checklists in this manual to teach students, see [Appendix B: Using the Safety Checklists to Teach Students About Occupational Safety and Health](#).

- **Maintain and update a chemical inventory**

As required by the OSHA hazard communication program, the Superfund Amendments and Reauthorization Act (SARA) Title III, and State hazardous waste regulations, you must record the names and amounts of all chemicals used, the means of disposal used, and the occurrence of any spills or releases on the premises.

- **Maintain and update a process and equipment inventory**

Record the location of hazardous processes or equipment, and the dates when maintenance or monitoring must be performed. Also keep an inventory of the safety equipment and those who use it.

- **Establish a procedure for purchasing goods and services and leasing new space**

Avoiding a hazard is easier than controlling it. Before any purchase of chemicals, equipment, or services, develop a system that may be reviewed by a safety representative or committee member. Similarly, review plans for renovating, constructing, or leasing new facilities.

- **Investigate incidents, spills, and releases**

Chemical release and other incident report forms should have a space to answer, “What were the causes of the incident or release?”, and “What precautions or controls could have prevented the incident or release?” A safety representative or committee member should investigate every incident or release to determine how to prevent such a problem in the future. Employees and students should be encouraged to report “near hits” or “close calls” as well.

- **Review injury and illness records**

Review reports of injuries, the OSHA Log 300 data (a required employee occupational illness and injury record-keeping system), personal injury claims, and workers’ compensation claims to identify whether certain classrooms, buildings, or processes pose an excess risk.

- **Review environmental records**

Look at the hazard communication inventory, air permits, hazardous waste records, solid waste records, and medical waste records to identify chemicals or processes that should be substituted, recycled, or prevented.

- **Order and review environmental, personal, and biological monitoring data**

A few processes in career-technical education programs may require air monitoring, environmental sampling, or biological monitoring of employees’ blood or urine. Consider consulting outside experts to determine which procedures to use. The [Appendix A: Resource Agencies and Organizations](#) can help identify ways to locate the appropriate consultant.

- **Arrange for medical screening**

A few processes in career-technical education programs may require medical screening. In particular, all employees and students who wear respirators should be evaluated by a physician to determine whether they are fit to wear one. Crucial to respirator wearing is proper fit-testing and training provided by the school. Those exposed to excess noise need periodic hearing tests, the results of which should be tracked over time. Personal protective equipment (PPE) (e.g., respirators, hearing protection) should be provided by the school. Video display operators should get regular eye exams. As with the guideline

above, consider consulting outside experts to determine which screening tests to use. Refer to [Appendix A: Resource Agencies and Organizations](#) for ideas about locating consultants.

Eliminate Hazards

The following functions should be performed by individuals or committee members assigned to the task.

- **Develop written procedures and programs**

Certain processes require written safety procedures in addition to the written safety and health program plan. Examples include emergency planning, respiratory protection, vehicle safety, and hazard reporting.

- **Develop emergency response plans and procedures**

For assistance in preparing plans to deal with chemical spills, see [Appendix D: Emergency Procedures in Schools in the Event of a Chemical Spill](#).

- **Provide regular equipment maintenance, repair, and replacement**

Equipment includes hazardous machinery, safety gear, and the ventilation system. Check that machine guards are in place. Implement a maintenance and repair record-keeping system as well.

- **Perform routine housekeeping**

Get rid of rubbish by disposing of it properly. Check to make sure that rubbish, hazardous chemicals, and other trash are properly stored and that exits are not blocked.

- **Install engineering controls**

The best way to make a process safe for people and the environment is by designing it to be safe. Incorporating safety and health controls in the design of the process is more reliable than having students follow certain rules, wear protective gear, or clean up excess pollution. The safety and health controls that are built into a process are referred to as “engineering controls.” Engineering controls are the first in the hierarchy of controls that are used to reduce teachers’ and students’ exposure to a hazard. The order in which these controls are considered is as follows: (1) engineering controls, (2) administrative controls, and (3) personal protective equipment (PPE). Engineering controls may include substitution, isolation, enclosure, and ventilation of a process or equipment. Administrative controls include training in hazard recognition and schedule changes or reduced work times to decrease students’ exposures. PPE may include respirators, aprons, safety goggles, hard hats, hearing protection, and welding masks. Committees are a useful means for brainstorming ideas about engineering controls or substitute processes. Advice from outside experts may also be helpful (see [Appendix A: Resource Agencies and Organizations](#)).

- **Provide personal protective equipment (PPE)**

Use of respiratory protection should be a temporary or last-resort solution when engineering controls are inadequate to control the hazards. However, respirators could be used routinely if job hazards require it. Other forms of PPE such as hearing protection, welders’ masks, hard hats, and safety goggles could be required depending on the job and hazards involved. Using protective gear involves careful selection, maintenance, and user training.

- **Install eye wash facilities and showers**

Install eye washes and/or showers near battery-changing stations, maintenance operations, heating and ventilating operations, and other processes that use corrosive chemicals or emit irritant aerosols.

- **Work cooperatively with inspectors from regulating agencies**

Remember that the purpose of regulations is to ensure that employers maintain a safe and healthy work environment. Inspectors can often identify ways to control hazards found during an inspection (see [Appendix C: Suggestions for Facilitating Inspections](#)).

- **Seek expert advice**

Difficult problems are often handled best by using a committee of all involved parties to brainstorm solutions. However, you may need outside advice. Your State Department of Education, county superintendent’s office, EPA, OSHA, the local fire department, or your local branch of the American Industrial Hygiene Association (AIHA) or National Safety Council (NSC) are sources of free advice or referral to an appropriate consultant or organization. See [Appendix A: Resource Agencies and Organizations](#) for addresses and phone numbers of some of these organizations.

Train Employees, Management, and Students

- **Train all new employees and students**

The safety training should be conducted before employees or students start a career-technical program or course. This training can be built into basic orientation and the curriculum.

- **Provide mandated training programs to employees and students**

Depending on the types of classes your school provides, training may be required on emergency and fire prevention, fire extinguishers, respiratory protection, occupational noise exposure, woodworking machinery, welding, asbestos handling,

hazard communication, and hazardous waste handling. Training is also recommended for video display terminal operators. Direct supervisors should receive the same training as their students or subordinates.

- **Train safety representatives and hazard prevention committees**

Training can enhance the ability of students and employees to carry out the functions listed above. In particular, they may wish to obtain training in computerizing the program, investigation of injuries or other incidents, safety and environmental record-keeping, hazard identification and control, industrial hygiene fundamentals, or environmental regulations. Outside training opportunities provide an essential means for safety, health, and environmental personnel to network with and learn from programs in other schools.

- **Obtain training help from the regulating agencies**

Often training help can be provided by regulating agencies or local industry.

Teachers, safety committees, and supervisors should not be discouraged if only small parts of an occupational safety and health and environmental safety program are in place early in the program. It takes time, money, and persistence to have a good program. Each new step is a great improvement over the way things were run before the program was in place.

Chapter 3. Implementing a Safety Checklist Program

Safety and Health (S&H) Coordinator Instructions

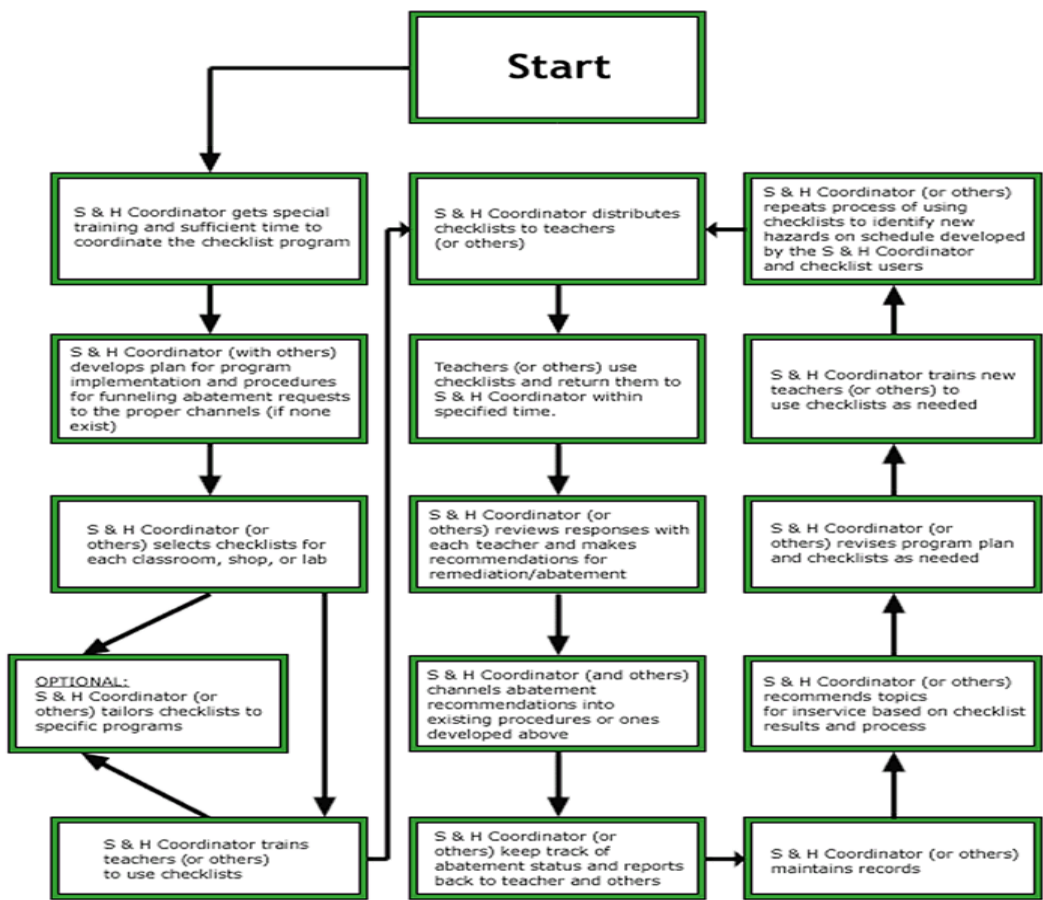
A well-run checklist program can help launch a school’s environmental safety, and occupational safety and health efforts, or it can strengthen an existing program. One of several ways to develop a checklist program is described below. The coordinator should set realistic expectations. In the first year of your school’s checklist program, it may not be possible to evaluate all of the programs. Select first the courses in the program that present the greatest hazards, then phase in the others.

The Safety Checklist Program has three major features:

- The S&H coordinator who puts the program together and trains teachers and others to use the checklists.
- A plan and procedures for teacher training, checklist dissemination, followup, and record keeping.
- Trained teachers, safety committee members, and other persons to use the checklists regularly in career-technical classrooms, shops, and labs.

Checklist Program Flow Chart

The flow chart summarizes the checklist program. It is then described in greater detail afterwards.



Implementing the Checklist Program

The safety and health coordinator is responsible for developing the checklist program for the organization with input and assistance from supervisors and teachers. Described below is an example of a guide for setting up the checklist program. The Safety and Health Coordinator can tailor it to the needs of the school. Refer to [Appendix A: Resource Agencies and Organizations](#) to identify people who can help answer questions.

A. Preparations

- **Attend training sessions on occupational safety and health and environmental safety.** Refer to [Appendix A: Resource Agencies and Organizations](#) to identify appropriate courses, see [NIOSH Education and Research Centers](#) [↗](#) .
- Review the material covered in the **Safety Checklist Program manual**, especially in this chapter. Skim the [Alphabetic Checklists in Chapter 4](#).
- **Complete one or two checklists** for practice.
- **Prepare a checklist program plan** for teacher training, checklist selection and use, followup, and record keeping. (These topics are discussed in greater detail below.) Involve the appropriate school personnel, such as the safety committee, school principal, supervisors, teacher representatives, etc., in the development of the plan.

B. Selecting Checklists

- Review the [Career-Technical Programs Index](#). This index was designed as an aid for selecting the checklists for each course or program and to keep track of the checklists as they are completed. It contains the following:
 - Lists of career-technical programs typically offered in public secondary schools. These lists are first grouped broadly by topic (they are referred to as Major Career-Technical Programs in the contents for the Index). Under each major career-technical program are listed generic program names. Find the one that most closely resembles your program.
 - Names and links to the checklists that may apply to each list of career-technical programs.

The Career-Technical Programs Index to Checklists is divided into three categories:

- **Applicable Checklists to All Programs.** This part of the Index lists checklists that should be completed for all career-technical classes, shops, or labs at your school.
 - **Potentially Applicable Checklists to All Programs.** This part of the Index lists checklists that deal with regulations concerning “generic” hazards found in shops or classrooms. These checklists apply to a program if the teachers or students use the substance, have the substance in the classroom, or perform the procedure indicated.
 - **Potentially Applicable Checklists—Grouped by General Program Areas.** This is the biggest part of the Index. The checklists correspond to regulations that apply to hazards found in specific programs. Do the following to select checklists from this section:
 - Find the general program area of interest.
 - Identify the program name that most closely resembles the one you are looking for. (The exact program names may vary from school to school.)
 - Review the checklists listed under the program names to find the ones that apply to your program or course. As a general rule, use these checklists if the applicable substance, equipment or procedure is used or located in the classroom. For example, if the students in the shop, lab, or class within the General Agricultural Business and Management Program operate abrasive wheel machinery, select that checklist.
 - Depending on the general program area, two checklists may apply to all of the programs listed: Personal Protective Equipment and Accident Prevention Signs and Tags.
- **Decide which checklists to use.** Print the appropriate pages of the [Career-Technical Program Index](#) for each classroom, lab or shop. Use these pages as a worksheet to keep track of which checklists were selected. The categories given on the [Career-Technical Program Index](#) pages are explained below:
 - **Need**
Check this line if the checklist applies. (Note: This category is not given on the [Career-Technical Program Index](#) page titled Applicable Checklists—All Programs.)
 - **Priority**
If many checklists apply to a shop, lab, or classroom, put them in the order in which they are to be completed. (Consult with the teacher after he or she has attended the training described in the next section.)
 - **Date Distributed**
Use this to help you remember when you have distributed the checklists. (To establish a realistic timeframe, consult with the teacher after he or she has attended the training described in the next section.)
 - **Date Returned**
Use this to indicate when the completed checklists were returned to you. (Pencil in when you expect them back, as a reminder for followup action if needed.)
 - **Look at the checklists you’ve selected** to be sure that they apply to the particular classroom, lab, or shop. (Include the teacher in this review.)

- **Adapt the checklists to your setting.** Set up committees to do this, or have each teacher do it with your help. (See the Special Notes below.)
- **Use the [Hazard Index to Checklists](#) if you want to find a checklist to evaluate a hazard.** Note that there are no checklists available for certain hazards because no Federal regulations apply to that hazard. However, it does not mean that the hazard is of no consequence! If there is no checklist for a hazard, contact a representative from the appropriate agency to get more information about the hazard. Also look through [Appendix A: Resource Agencies and Organizations](#) .

C. Deciding Who Selects the Checklists

The checklists may be selected by teachers or by the Safety and Health Coordinator. Pilot-test participants preferred to make the initial selection to pass on to teachers. Make master copies of each package of checklists that you give out, so you will not have to repeat this task in the future.

D. Teacher Training

- **Review, modify as needed, and make copies of the items listed below** to hand out during the teacher inservice training. Most of these are located in the [Training Handouts](#) section of this chapter. You may want to set up a folder or binder for each teacher.
 - Sample cover letter to teachers. Rewrite this for your school or omit it if you do not think it is necessary
 - Checklist Instructions
 - Common Abbreviations
 - Commonly Asked Questions
 - A sample checklist. (To make things easier you might use one that applies to all programs. Use this checklist when doing the practice inspection described in the following numbered sections (2 and 3))
 - [Appendix B: Using the Safety Checklists to Teach Students about Occupational Safety and Health](#)
- **Do a trial run of the sample checklist** you plan to use when you train the teachers to be sure that you understand all of the questions
- **Meet with teachers** either individually or hold general inservice training. The agenda might include the following:
 - Describe the rationale for the checklist program. Some examples include the following:
 - The checklist program is being implemented in your school to help reduce occupational safety and health hazards on the premises.
 - The checklist program will help the school maintain compliance with regulations.
 - The checklists provide a way to help ensure a classroom environment that minimizes occupational injuries and illnesses.

Refer to the [Introduction](#) section of the Safety Checklist Program for more ideas on what to include in your rationale.
 - Describe briefly what is in the Safety Checklist Program manual (optional).
 - Review the handouts that were copied from the list above, especially the sample checklist. Emphasize that it is important to answer **all** of the questions, even the ones that don't apply (use the N/A option).
 - Describe the school's followup and remediation procedures.
 - Do a practice inspection using the sample checklist. A hazard simulation may be feasible for training purposes.

E. Dissemination and Use of the Checklists

- **Have the teachers complete the checklists.** Having a safety committee representative or another teacher accompany them may be helpful to get an objective perspective.
- **Arrange for technical assistance** if needed. Some of the checklists, such as those pertaining to air contaminant monitoring, may be too hard to complete without outside technical expertise. To identify consultants, see [Appendix A: Resource Agencies and Organizations](#) .

F. Followup and Record Keeping

- **Meet with teachers** to review the completed checklists and discuss remediation strategies for any problems.
- **Use the followup system that was established in your plan to deal with problems that were identified.** This system should address who oversees the followup and monitors the progress of the remediation, the role of the Safety and Health

Coordinator and the teacher in the followup, budgeting for followup, and procedures to follow if no problems are identified. See the sample remediation form letter in the [Training Handouts](#) section of this chapter. You can adapt it to your school.

- **Check that the remediation was completed and report this information to the teacher and others who should know.** It will be important to the success of the checklist program for people to see that their efforts to find and control the hazards have paid off.
- **Keep copies of the completed checklists and memos concerning followup procedures.** This information will help your school comply with potentially applicable regulations. The teacher should also keep copies of checklists and memos pertaining to his or her classroom.
- **Identify potential inservice topics** from issues and questions raised during the use of the checklists and pass this information on to the appropriate people. Use [Appendix A: Resource Agencies and Organizations](#) for ideas for possible inservice speakers.

G. Repeating the Cycle

- **Review the checklist program plan and revise as needed.** Include in the process the same people who participated in the preparation of the plan.
- **Establish a time frame for repeating the checklist program.** Once a year is probably sufficient, depending on the type of hazards found in a classroom, lab, or shop. However, hazardous conditions can crop up unexpectedly, such as when a light switch is removed for repairs and does not get reinstalled or when temporary wiring becomes a “permanent” solution.
- **Update checklists as needed.** Some regulations may have changed since the checklists were last used. Check the [OSHA](#)  and [EPA](#)  Web sites for these changes. Refer to [Appendix A: Resource Agencies and Organizations](#) .
- **Alert teachers when it is time to begin the process again, and train new teachers as needed before disseminating the checklists.**
- **Repeat the process of using the checklists, using the established schedule.**

Special Note:

Selection of a Person to Implement the Checklist Program

At least one person in each school or school district should assume responsibility for implementation of the checklist program. This person is referred to in the Safety Checklist Program as the Safety and Health Coordinator. Two recommendations are important regarding the Safety and Health Coordinator.

- The person should have a background in career-technical education and sufficient authority to supervise teachers in completing the checklists.
Possible candidates to coordinate the checklist program include the principal, the career-technical education director, a supervisor or chairperson of career-technical education courses, a school health and safety committee representative, the buildings and grounds supervisor, the designated person for asbestos, the school business administrator, or a well-respected and experienced teacher.
- The person should be given sufficient time to do the job right.
Pilot-test coordinators felt that the success of the program would be seriously compromised if the person had too heavy a workload.

Strategies for “Selling” the Checklist Program to Teachers

Introducing any new program, no matter how useful, may place additional burdens on staff members. Putting a good “spin” on the program may help encourage the use of the Checklists Program.

- Use a phased-in approach to keep people from feeling overwhelmed. Distribute checklists piecemeal, perhaps as “the hazard of the week,” or in batches over the course of the year. This is especially important for teachers with labs, shops or classrooms having a lot of checklists.
- Emphasize that nobody is penalized for finding problems—this is a proactive way to maintain safety and health in the classroom, shop, or lab.
- Stress that the checklists are an easy way to determine compliance without having to locate and plow through all the regulations.
- Point out that similar regulations apply to the private sector. Therefore the checklists can help teachers evaluate cooperative experiences (this was found to be the case from the pilot test).

- Show how the checklists can be used to enhance teaching safety and health to students (refer to [Appendix B: Using the Safety Checklist Program to Teach Students About Occupational Safety and Health](#)).

Keep in mind that the checklists offer the potential for learning more about occupational safety and health.

Case Study

Below is a case study describing how staff at the Elizabeth Public School District, in Elizabeth, New Jersey, implemented a checklist program [Special thanks are extended to Robert Rossow, Supervisor of Industrial Arts/Career-Technical Education, for sharing this information for inclusion in the Safety Checklist Program manual].

- Overview of the Elizabeth Public School District

The Elizabeth Public School District is classified as a comprehensive school district, offering middle and high school industrial arts and career-technical courses in 28 program areas. Approximately 3,400 students are in grades 6-8; all are enrolled in industrial arts courses. In grades 9-12, there are 4,400 students; 800 are enrolled in industrial arts courses, and 750 in career-technical programs. The checklist program was coordinated by the school's Supervisor of Industrial Arts/Career-Technical Education. The decision to have a high-level administrator take on this task was made to send a clear message to faculty and staff that the district is committed to the program. The Safety and Health Coordinator brought to the position many years of experience in career-technical education and a demonstrated commitment to safety and health. It was a big job to get the checklist program off the ground because there were 13 buildings to cover and 48 teachers with career-technical education responsibilities. Efforts were made to use existing channels for inservice training, distributing information, etc. Input into the program came from the newly established district safety committee. This committee was chaired by the Assistant Superintendent of Secondary Programs. Committee members included the Safety and Health Coordinator, the Science Coordinator, the Director of Buildings and Grounds, the Supervisor of Custodians, a physical education and health representative, and a school nurse. The district already had a mandated maintenance and repair program to which the checklist program could funnel requests for remediation.

- Disseminating the Checklists

A special ad-hoc committee was formed to select checklists for each career-technical offering. The committee was made up of a middle school industrial arts teacher, a high school industrial arts teacher, a career-technical program teacher, a technology teacher, and the Safety and Health Coordinator. They decided not to modify the checklists initially. This allowed teachers to get a sense of what the regulations in the checklists cover even if only a few questions apply to their situation.

- Each teacher involved in industrial arts and career-technical education received an instructional packet made up of a curriculum guide that includes safety material for the class and a district lab or shop safety handbook. The following items were added to the packet: a customized cover letter listing what checklists are enclosed and the timeframe for completing them, the appropriate checklists, training handouts, and a copy of [Appendix B: Using the Safety Checklist Program to Teach Students About Occupational Safety and Health](#). The first completed checklists were the generic ones, followed by the shop or lab-specific ones. The timeframe was set so that all of the teachers would complete the same checklists at the same time. For example, within one month, all teachers completed fire safety checklists. This way, any service repairs needed in the particular area could all be done at once.
- The Safety and Health Coordinator incorporated teacher training into the regular meeting schedule. Teachers were told that they would have to sign the checklists. Other strategies for "selling" the checklist program included emphasizing that the checklists would:
 - Alert teachers to regulations without having to read them
 - Become an enhancement to the district's safety and health program
 - Provide learning opportunities for students
 - Become part of the district's safety and health manual
 - Help the district comply with potentially applicable regulations

The Safety and Health Coordinator designated a head teacher (one with the most experience/seniority) to help facilitate the program at each site. This person helped collect the checklists and was available for answering questions. (This was done because some teachers may have felt more comfortable approaching a fellow teacher than the Safety and Health Coordinator.) The district used a buddy system to match new teachers with experienced ones. This system was used to help new teachers complete checklists.

- Followup Activities

The completed checklists were not copied to anyone except the Safety and Health Coordinator, who kept a master file. He reviewed the checklists and funneled potential violations to the appropriate people, citing the relevant regulations to strengthen his request for action. Emergency situations identified from the checklists were handled immediately. Building-related problems were reported to the Building Administrator, with copies of memos sent to the Safety and Health

Coordinator. Shop or lab-related problems were reported to the supervisors. Then the Safety and Health Coordinator arranged for repairs and forwarded this information to the building principal and custodians. Using the checklists may help with budget planning for repairs.

Special Notes

- **Pros and Cons of Modifying the Checklists**
Since the checklists are generic, some questions may not apply to every classroom situation. Some schools that have used the checklists have established committees to tailor the checklists to their needs. Although this could be a time consuming task, it will only have to be done once, with periodic updating as regulations change. Other schools have decided to use the checklists as they are because they thought it was helpful to have a sense of the whole regulation.
- **A few teachers may feel that the checklists are too technical.** Checklists are based on highly technical regulations. Many of the terms used have specific meanings and if substitute words are used, the meanings may be changed. If you rewrite parts of checklists, be sure to refer to the definitions at the end of each checklist and check the appropriate regulation to ensure that it meets all the requirments of the regulation.
- **The Checklist “Optional Information” Box and Liability**
The purpose of a checklist program is to protect teachers and students by identifying and eliminating environmental, safety, and health hazards in classrooms, shops, and labs. You will be able to make a stronger case for an adequate remediation budget if you can **document problems in writing** and indicate which regulations have not been met. The information from completed checklists will be most useful if the “optional information” box at the top is completed. (This box includes space for the name of your school, date of inspection, the career-technical program/course/room, and signature of the person completing the checklist.) However, you may encounter resistance from some teachers because they are concerned about being held liable for hazards found in their classroom, lab or shop if they sign the checklist. In recent lawsuits, teachers have fared best if they could demonstrate that they documented hazards and tried to take appropriate actions to correct them. Teachers who took the approach that they did not know about a hazard frequently were not released from liability. The rationale for this was teachers were presumed to be the experts in their field, so they should know how to ensure safety and health in their classrooms, shops, and labs.
- **Having the checklists completed by a team,** such as members of your school’s safety and health committee may be one way to diffuse the liability issue. At a minimum, keep track of which checklists are completed by whom for which classroom, lab or shop. Otherwise, depending on the checklist, you will not be able to tell if the checklist was completed for a print shop or an autobody repair class and therefore will not be able to give accurate direction for remediation and followup.

Training Handouts

- [Markings Commonly Used on Checklists](#)
- [Abbreviations and Acronyms Used in Checklists](#)
- [Checklist Instructions](#)
- [Commonly Asked Questions About the Checklists](#)
- [Sample Staff Letter from Safety and Health Coordinator](#)
- [Sample Remediation Form Letter](#)

Chapter 4: Safety Checklists and Indexes



- [Alphabetical Listing of Safety Checklists](#)
- [Career-Technical Programs Index](#)
- [Hazard Index](#)
- [Occupations Index](#)

The checklists are based primarily on the Occupational Safety and Health Administration (OSHA) as well as the Environmental Protection Agency (EPA) and other federal government agencies’ regulations and standards. [The U.S. Department of Labor/Employment Standards Administration/Wage and Hour Division](#)  also has regulations for [young workers-students under age 18](#)  which limit working hours and prohibit certain types of hazardous jobs. Additional restrictions to working hours and type of jobs may be imposed by individual [States](#) . Students enrolled in a career school, apprenticeship, or other student-learner programs may be [exempt from some of the Hazardous Orders](#) .

Appendix A: Resource Agencies and Organizations



Inclusion in Appendix A of a private company or organization does not constitute endorsement by the National Institute for Occupational Safety and Health or the Environmental and Occupational Health Sciences Institute. This is not a comprehensive list of resources.

Federal Government Agencies

Agency for Toxic Substances and Disease Registry (ATSDR)

ATSDR provides public health information to prevent harmful exposures and disease related to toxic substances in the environment.

1-888-42-ATSDR

Apprenticeship Programs/ U.S. Department of Labor (DOL)

DOL assists industry in developing and improving apprenticeship and other training programs designed to provide the skilled workers needed to compete in a global economy. Apprenticeship is a combination of on-the-job training and related classroom instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. Apprenticeship programs are sponsored by joint employer and labor groups, individual employers, and/or employer associations. The Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Dept. of Labor registers apprenticeship programs and apprentices in 23 States and assists and oversees State Apprenticeship Councils which perform these functions in 27 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

Centers for Disease Control and Prevention

The Centers for Disease Control and Prevention (CDC) is recognized as the lead federal agency for protecting the health and safety of people – at home and abroad, providing credible information to enhance health decisions, and promoting health through strong partnerships. CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States.

National Prevention Information Network

(HIV, AIDS, STDs, TB)

1-800-458-5231

- National Center for Infectious Diseases**
The mission of the National Center for Infectious Diseases (NCID) is to prevent illness, disability, and death caused by infectious diseases in the United States and around the world. NCID conducts surveillance, epidemic investigations, epidemiologic and laboratory research, training, and public education programs to develop, evaluate, and promote prevention and control strategies for infectious diseases. NCID works in partnership with local and state public health officials, other federal agencies, medical and public health professional associations, infectious disease experts from academic and clinical practice, and international and public service organizations.
(404) 639-3311
- National Center for Environmental Health (NCEH)**
Provides resources for Sanitarians, Environmental Health Specialists, Environmental Health Officers, Students and other Public Health professionals. This information is available to anyone in the public interested in the field of Environmental Health and reducing illness and death due to environmentally-related disease and injury.
email: [email](#)
- National Center for Environmental Health Services**
- National Institute for Occupational Safety and Health (NIOSH)**The National Institute for Occupational Safety and Health (NIOSH) is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH is part of the Centers for Disease Control and Prevention (CDC) in the Department of Health and Human Services. NIOSH provides national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services.
Toll-free Information Assistance
1-800-35-NIOSH
NIOSH Health Hazard Evaluations
Division of Surveillance, Hazard Evaluations and Field Studies

Mail Stop R 12
4676 Columbia Parkway
Cincinnati, Ohio 45226
(513) 841-4428, FAX (513) 841-4483
NIOSH Publications
4676 Columbia Parkway
Cincinnati, Ohio 45226
(513) 533-8471

1-800-35-NIOSH, FAX 513-533-8573
A NIOSH Health Hazard Evaluation (HHE) could determine whether workers are exposed to hazardous substances. NIOSH also has many excellent publications; ask to receive a copy of their Publications Catalog and to be put on their mailing list. Many documents cover topics of interest to career-technical educators including automotive air bag repair hazards, ergonomics, infection control, noise, respiratory protection, video display terminals, printed circuit board etching solutions, heat/stress exhaustion, insulation protection, nonionizing radiation, and sunburn.

[U.S. Consumer Product Safety Commission \(CPSC\)](#)

4330 East West Highway
Bethesda, MD 20814

Consumer Hotline
1-800-638-2772

Evaluates the safety of products sold to the public and provides printed materials on different aspects of consumer product safety.

[Environmental Protection Agency \(EPA\)](#)

Information Services Branch
Public Information Center
401 M Street, SW PM-3404
Washington, DC 20460

(202) 260-2090, EPA Directory Assistance
(202) 260-2090, Ext. 2080 – Public Information Center
FAX (202) 260-6257

Provides non-technical information about environmental issues. Information is available from PIC on drinking water, air quality, pesticides, radon, indoor air, Superfund, wetlands, hazardous waste, and many other environmental topics.

- [EPA Chemical Emergency Preparedness Program and Community Right-to-Know](#) 
1-800-535-0202
EPA's RCRA, Superfund, and EPCRA Hotline
Provides information about reporting of hazardous substances for community planning purposes and Federal EPA regulations, policy, and documents.
- [EPA Indoor Air Quality Information Clearinghouse](#)  Provides information and materials about indoor air quality.
- EPA Safe Drinking Water Hotline
1-800-426-4791
Provides information about public water supply program, policy, and regulations.
- EPA Solid Waste and Hazardous Waste (RCRA) and Superfund Hotline
1-800-424-9346
- [National Pesticide Information Center \(NPIC\)](#) 
1-800-858-7378; 6:30 a.m.-4:30 p.m. Pacific Time
Supported by the EPA, NPTN provides information about pesticides and spill handling, disposal, clean-up, and health effects.

[National Association of State and Territorial Apprenticeship Directors \(NASTAD\)](#)

The association promotes and achieves an effective national apprenticeship system. It provides a forum for states and territories that have their own state apprenticeship law with which to govern Registered Apprenticeship training programs within their respective jurisdictions.

National Institute for Occupational Safety and Health (NIOSH)
see entry under Centers for Disease Control and Prevention

[National Institute of Environmental Health Sciences \(NIEHS\)](#)

NIEHS provides information for reducing the burden of human illness and dysfunction from environmental causes. They conduct multidisciplinary biomedical research, prevention and intervention efforts, and communication strategies that encompass training,

education, technology transfer, and community outreach. The Web site provides kids’ pages and teacher support for K-12, and links to science teacher resources.

Occupational Safety and Health Administration (OSHA) [↗](#)

National Office
U.S. Department of Labor
Occupational Safety and Health Administration
Washington, D.C. 20210
(202) 693-1999

Contact OSHA for information about workplace safety and health regulations or to file a complaint about working conditions if you work in the private sector. OSHA has regional and area offices throughout the United States. Contact these offices first for information.

OSHA State-Plan States—List

The following table contains Web site links to [OSHA State-Plan States](#) [↗](#) . Please refer to these programs individually as they may have additional regulations and requirements.

OSHA State–Plan States—List			
Alaska ↗	Arizona ↗	California ↗	Connecticut ↗
Hawaii ↗	Indiana ↗	Iowa ↗	Kentucky ↗
Maryland ↗	Michigan ↗	Minnesota ↗	Nevada ↗
New Jersey ↗	New Mexico ↗	New York ↗	North Carolina ↗
Oregon ↗	Puerto Rico ↗	South Carolina ↗	Tennessee ↗
Utah ↗	Vermont ↗	Virgin Islands ↗	Virginia ↗
Washington ↗	Wyoming ↗		
NOTE: The Connecticut, New Jersey and New York plans cover public sector (State & local government) employment only.			

University–Based Organizations

[NIOSH Education and Research Centers \(ERCs\)](#) [↗](#)

The sixteen NIOSH-funded universities provide multidisciplinary graduate and continuing education programs in occupational medicine, occupational health nursing, and industrial hygiene. The ERCs serve as regional resources for occupational safety and health.

[Environmental and Occupational Health Sciences Institute \(EOHSI\)](#) [↗](#)

170 Frelinghuysen Road
Piscataway, NJ 08855-1179
(732) 445-0200

EOHSI is co-sponsored by the University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School and Rutgers, The State University of New Jersey. EOHSI sponsors research, training, education, and clinic and service programs to improve the understanding of the environment and occupational health issues and their impact on individual and societal health.

The Public Education and Risk Communication Division is one of six divisions within EOHSI. It includes the Centers for Education and Training and the Resource Center, which are described below.

- [EOHSI Centers for Education and Training](#) [↗](#) CET offers more than 250 continuing education and training courses annually for environmental and occupational safety and health professionals, paraprofessionals, and workers.

- [Resource Center of EOHSI](#)

Public Education and Risk Communication Division

170 Frelinghuysen Road

Piscataway, NJ 08855-1179

(732) 445-0110, FAX (732) 445-0122The Resource Center provides videos, curricula, books and brochures on a variety of environmental and occupational safety and health issues. Teacher training is also available. The materials below would be of special interest to career-technical educators. Contact the Resource Center for prices and ordering information.Teaching Modules:*Occupational Health Awareness: Lessons for Vocational Students in Secondary Schools*

Educators in career-technical programs can also use ToxRAP™, an innovative, K-9 curriculum that uses concepts from toxicology and environmental health risk assessment. Students learn to identify a problem, gather information, form a hypothesis, conduct experiments, make observations, collect and analyze data, draw conclusions, and defend their conclusions on the basis of scientific evidence. This is accomplished by teaching students how to apply the ToxRAP™ Framework to investigations concerning environmental health problems relevant to their lives. The ToxRAP™ curriculum series includes three modules: Early Elementary/K-3 (*The Case of the Green Feathers*), Intermediate Elementary/3-6 (*What is Wrong with the Johnson Family?*), and Middle School/6-9 (*Mystery Illness Strikes the Sanchez Household*). To order these EOHSI materials, see above.

[California Resource Network for Young Workers' Health and Safety/"youngworkers.org"](#)

Provides information on workplace rights and responsibilities, work hours and job restrictions, hazards on the job, ways to prevent job injuries and more. It also includes educational resources, fact sheets, and ideas for how to work with others in the community to keep young workers healthy and safe on the job. The laws noted at this site are specific to California. It is sponsored by the California Department of Industrial Relations and the California Partnership for Young Worker Health and Safety. The Labor Occupational Health Program at the University of California at Berkeley coordinates the Resource Network.

[Labor Occupational Health Program](#)

Robin Baker, Director

Labor Occupational Health

School of Public Health

University of California, Berkeley

2223 Fulton Street, 4th floor

Berkeley, CA 94720-5120

(510) 642-5507, FAX (510) 643-5698

Provides educational materials on safety and health in the workplace.

[Southwest Center for Occupational and Environmental Health \(SWOECH\)](#)

R. Palmer Beasley, M.D., Dean

The University of Texas-Houston

School of Public Health

1200 Herman Pressler

Houston, TX 77030

Provides educational seminars and training workshops in occupational and environmental safety and health.

[UCLA-Labor Occupational Safety and Health Youth Project Program](#)

Laurie Kominski, Youth Project Director (310) 794-5992

UCLA-LOSH Program

Hershey Hall

Box 951478

Los Angeles, California 90095-1478

310/794-5992; (310) 794-6403

fax 310/794-6403

The UCLA-Labor Occupational Safety and Health (LOSH) Youth Project Program provides educational materials (including 2 videos), downloadable curricula, and training for teachers and youth job training programs on young worker health and safety.

Professional and Standard-Setting Organizations

American Conference of Governmental Industrial Hygienists (ACGIH)

1330 Kemper Meadow Drive—Ste. 600

Cincinnati, OH 45240

[ACGIH](#)  is a community of professionals who advance worker health and safety through education and the development and dissemination of scientific and technical knowledge.

(513) 742-2020, FAX (513) 742-3355

American Industrial Hygiene Association (AIHA)

2700 Prosperity Avenue

Suite 250

Fairfax, VA 22031

[AIHA](#)  promotes, protects, and enhances industrial hygienists and other occupational health, safety and environmental professionals in their efforts to improve the health and well being of workers, the community, and the environment.

(703) 849-8888, FAX (703) 207-3561

American National Standards Institute (ANSI)

11 West 42nd Street

New York, NY 10036

[ANSI](#)  administers and coordinates the U.S. voluntary standardization and conformity assessment system. The Institute's mission is to enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.

(212) 642-4900, FAX (212) 398-0023 (Order Dept.)

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

1791 Tullie Circle, N.E.

Atlanta, GA 30329

[ASHRAE](#)  advances the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to serve the evolving needs of the public and ASHRAE members.

(404) 636-8400, FAX (404) 321-5478

American Society of Safety Engineers (ASSE)

ATTN: Education

1800 East Oakton Street

Des Plaines, IL 60018-2187

[ASSE](#)  is the oldest and largest professional safety organization. Its more than 30,000 members manage, supervise and consult on safety, health, and environmental issues in industry, insurance, government and education.

(847) 699-2929, FAX (847) 296-3769

Association for Career and Technical Education (ACTE)

(formerly, American Vocational Association (AVA))

1410 King St.

Alexandria, VA 22314

[ACTE](#)  is the largest national education association dedicated to the advancement of education that prepares youth and adults for successful careers. Its members are technical educators, administrators, researchers, guidance counselors and others involved in planning and conducting career and technical education programs at the secondary, post-secondary and adult levels. ACTE provides leadership in developing an educated, prepared, and competitive workforce.

(703) 683-3111, FAX (703) 683-7424

American Welding Society (AWS)
550 N.W. LeJeune Road
Miami, Florida 33126

[AWS](#)  advances the science, technology and application of welding and related joining disciplines. From factory floor to high-rise construction, from military weaponry to home products, AWS supports welding education and technology development to ensure a strong, competitive and exciting way of life for all Americans.

1-800-443-9353, FAX (305) 443-7559

Building Officials and Code Administrators International
4051 W. Flossmoor Rd.
Country Club Hills, IL 60478-5795

[BOCA](#) , ICBO and SBCCI formally consolidated into a single, 50,000-member organization: the International Code Council (ICC). The ICC will provide world-class service to members and customers, and remains dedicated to public safety through the development of building safety and fire prevention codes.

(708) 799-2300, FAX (708) 799-4981

For information about BOCA standards, see the section that follows, titled “Where to Obtain Copies of Regulations and Standards.”

Compressed Gas Association, Inc. (CGA)
1725 Jefferson Davis Highway
Suite 1004
Arlington, VA 22202-4102

[Compressed Gas Association](#)  has been dedicated to developing and promoting safety standards and safe practices in the industrial gas industry.

(703) 412-0900, FAX (703) 412-0128

National Fire Protection Association (NFPA)
1 Batterymarch Park
Quincy, MA 02269-9101

The mission of the international nonprofit [NFPA](#)  is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically-based consensus codes and standards, research, training and education.

(617) 770-3000, FAX (617) 770-0700

1-800-344-3555 for orders

National Fire Codes Subscription Service. Thirteen-volume set of National Fire Codes in loose-leaf binders. Includes quarterly newsletter in notices of updates and proposed changes. Also includes the latest edition of the National Electrical Code.

National Safety Council (NSC)
P.O. Box 558
Itasca, IL 60143-0558

[NSC](#)  is the nation’s leading advocate for safety and health. NSC’s mission is “to educate and influence society to adopt safety, health and environmental policies, practices and procedures that prevent and mitigate human suffering and economic losses arising from preventable causes.”

1-800-621-7619, FAX (708) 285-0797

Has educational materials on safety and health topics including respiratory protection and eye safety.

New Jersey State Safety Council, Inc.
6 Commerce Drive
Cranford, NJ 07016

(908) 272-7712, FAX (908) 276-6622

[NJSSC](#)  is a nongovernmental, nonprofit public service organization, dedicated to the prevention of harm in New Jersey, and it has been the state’s strongest advocate of preventing and mitigating human and economic losses arising from accidental causes.

National School Boards Association (NSBA)
1680 Duke Street
Alexandria, Virginia 22314

[NSBA](#)  is the nationwide organization representing public school governance. Their mission is to foster excellence and equity in public education through school board leadership. NSBA achieves that mission by representing the school board perspective before federal government agencies and with national organizations that affect education, and by providing vital information and services to state associations of school boards and local school boards throughout the nation. NSBA advocates local school boards as the ultimate expression of grassroots democracy. It supports the capacity of each school board—acting on behalf of and in close concert with the people of its community—to envision the future of education in its community, to establish a structure and environment that allow all students to reach their maximum potential, to provide accountability for the community on performance in the schools, and to serve as the key community advocate for children and youth and their public schools.

(703) 683-7590

Where to Obtain Copies of Occupational Regulations

Free access to OSHA regulations via the Internet:

[General Industry Regulations](#) 

[Construction Regulations](#) 

Free access to information pertaining to [Child Labor Laws](#)  via the Internet [or](#)  [or](#) 

Free access to the [Code of Federal Regulations](#)  can easily be accessed via the Internet

Printed Copies (Federal Government)

- Code of Federal Regulations (CFRs)—the Codes are updated annually
Government Institutes, Inc.
4 Research Place, Suite 200
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Call for price information.
- 40 CFR 1-51 (Air Regulations, Grants and other Federal Assistance)
- 40 CFR 52 (Air Programs)
- 40 CFR 53-59 (Air Programs)
- 40 CFR 60 (Air Programs)
- 40 CFR 61-71 (Air Programs)
- 40 CFR 72-80 (Air Programs)
- 40 CFR 81-85 (Air Programs)
- 40 CFR 86 (Air Programs)
- 40 CFR 87-135 (Water Programs)
- 40 CFR 136-149 (Water Programs)
- 40 CFR 150-189 (FIFRA – Pesticide Programs)
- 40 CFR 190-259 (RCRA, Radiation Protection, Ocean Dumping, Solid Wastes)
- 40 CFR 260-299 (RCRA, Hazardous Wastes)

- 40 CFR 300-399 (CERCLA/Superfund and SARA Title III)
- 40 CFR 100-149 (Water Programs)
- 40 CFR 400-424 (Water Effluent Guidelines and Standards)
- 40 CFR 425-699 (Water Effluent Guidelines and Standards cont'd)
- 40 CFR 700-789 (TSCA)
- 40 CFR 790-END (TSCA)
- 29 CFR 1900-1910.999 (OSHA Standards for Subpart A-T)
- 29 CFR 1910.1000-1910.END (OSHA Standards for Subpart Z [Haz. Comm.])
- 29 CFR 1911-1925 (OSHA Longshore)
- 29 CFR 1926 (Safety and Health Standards for Construction)
- 29 CFR 1927-End (OSHA Agriculture, State Plans, OSHRC, Pensions)

The individual books above of the Code of Federal Regulations (CFR) can also be ordered from

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Government Printing Office
Washington, D.C. 20402-9371

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[Federal Register](#)  (one year, published daily)

This is the official government publication for informing the public about proposed and final regulations, with accompanying explanations and justifications. Order from the Superintendent of Documents at the address above.

U.S. Congress Public Laws (slip laws)
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[The Bureau of National Affairs, Inc.](#) 

1231 25th Street, N.W.
Washington, D.C. 20037
1-800-452-7773 FAX: (202)-822-8092

Publications: Occupational Safety and Health Reporter, Environmental Reporter, Chemical Regulation Reporter

You can obtain regulations, compliance directives, Federal and State regulations and updated newsletters.

[Business and Legal Reports, Inc.](#) 

39 Academy Street
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1-800-7-ASK-BLR, FAX: (203)-245-2559

Matthew Bender
1275 Broadway
Albany, NY 12204
(518) 487-3000, FAX: (518)-487-3584

Publication: Occupational Safety and Health Act

This is a 2-volume set in loose-leaf format, updated by supplements and revisions. Provides sample forms, standards, and checklists. Call for prices.

The Merritt Company
Dept I60000M
P.O. Box 955
Santa Monica, CA 90406
1-800-638-7597, FAX: (310)-396-4563

Publication: OSHA Reference Manual

This monthly updated service consists of complete 29 CFR 1910 standards, in an easy-to-understand format and self-inspection checklists. Call for price.

[Specialty Technical Publishers Inc.](#) 

Suite 306
267 W. Esplande
N. Vancouver, B.C.
Canada V7M 1A5
(604) 983-3434, Fax: (604) 983-3445

Chemical Emergency Response

[CHEMTREC](#) 

American Chemistry Council
1300 Wilson Blvd.
Arlington, VA 22209
1-800-424-9300, Emergency Hotline FAX: (703)-741-6089

This can be a good source of information on clean-up, neutralizing chemicals, environmental sampling, etc. for health officers or other professionals. *Not for general public use.*

Other Information Sources

[AFL-CIO](#) 

The federation of America’s labor unions, represents more than 13 million working women and men, also offers workplace safety and health information.

[American Federation of Teachers](#) 

The American Federation of Teachers represents the economic, social and professional interests of classroom teachers. It is an affiliated international union of the AFL-CIO. The AFT has more than 3,000 local affiliates nationwide, 43 state affiliates, and more than 1.3 million members.

Alaska Health Project
218 East 4th Ave.
Anchorage, AK 99501
(907) 276-2864, FAX: (907)-279-3089

This project provides training and educational materials about a variety of occupational and environmental health topics.

American Labor Education Center (ALEC)
2000 P Street, NW, Room 300
Washington, DC 20036
(202) 828-5170, FAX: (202)-828-5173

ALEC has information about safety and health and labor related issues.

[American Lung Association](#)

1740 Broadway
New York, NY 10019-4374
(212) 315-8700, FAX: (212) 315-8870

This association has developed the Future Workers' Education Project, which focuses on preventing and reducing occupational diseases and injuries in tomorrow's workers. Lesson plans and materials for teachers and students in high school, career-technical and technical courses, and community colleges. Series includes units on autobody and repair, health occupations, welding, and cosmetology. Additional units to be developed: agriculture, carpentry, graphics, printing. To order, call, 1-800-292-5542 or contact your local American Lung Association (check the white pages of your phone book for local listings). Price approximately \$40 for each unit.

[The Canadian Centre for Occupational Health and Safety](#)

Canada's premier national center for occupational safety and health information. Provides products and services for the prevention of workplace injuries and illnesses.

[Center for Safety in the Arts](#)

c/o New York Foundation for the Arts (NYFA)
155 Avenue of the Americas
14th Floor
NY, NY 10011
Voice Mail Only: 212-366-6900 Ext. 333

This is the only national resource center for performing/visual artists that deals with safety and health hazards. It has fact sheets, a newsletter, consultation, and referral.

[Center to Protect Workers Rights \(CPWR\)](#)

CPWR's main focus is to develop practical ways to improve safety and health for construction workers and their families. As the research, development, and training arm of the Building and Construction Trades Department and the construction unions in the AFL-CIO, CPWR works with more than 30 organizations nationwide

[Chemical Referral Center](#)

American Chemistry Council
1300 Wilson Blvd.
Arlington, VA 22209
1-800-262-8200, FAX: (703)-741-6000

This center provides general, nonemergency information about chemicals. It refers callers to a person at a manufacturing company who can provide the requested information. The center operates 9:00 a.m. to 6:00 p.m., Eastern Standard Time, Monday through Friday. It is a public service of American Chemistry Council (ACC) that provides users of chemicals, transportation workers, and the

general public with access to safety and health information about chemicals and chemical products.

[Inform](#) 
120 Wall Street
16th Floor
NY, NY 10005-4001
(212) 361-2400, FAX (212) 361-2412

This is a national resource center with information about industrial and municipal solid waste issues.

[National Clearinghouse for Worker Safety and Health Training for Hazardous Materials, Waste Operation, and Emergency Response](#) 
George Meany Center
10,000 New Hampshire Avenue
Silver Springs, MD 20903

(301) 571-4226, FAX: (301) 431-6464

This agency has safety and health information about hazardous materials and emergency response.

[National Lead Information Center Hotline](#) 
1025 Connecticut Ave., NW
Suite 1200
Washington, DC, 20036
1-800-424-5323

You can obtain educational materials about lead and health effects on children, lead in drinking water, and abatement.

[Prevent Blindness America](#)  (formerly called National Society to Prevent Blindness)
500 E. Remington Rd.
Schaumburg, IL 60173
(847) 843-2020 or 1-800-331-2020, FAX: (847)-843-8458

The mission is to preserve sight and prevent blindness through patient, professional, and public education. The organization provides information about eye safety.

[SkillsUSA](#) 
P.O. Box 3000
Leesburg, VA
20177-0300
Voice: (703) 777-8810
Fax: (703) 777-8999

SkillsUSA serves over 280,000 over a quarter-million high school and college students and professional members who are enrolled in technical, skilled, and service occupations, including health occupations. SkillsUSA prepares America’s high performance workers for leadership in the world of work.

[Appendix B: Using the Safety Checklists to Teach Students about Occupational Safety and Health](#)

Introduction

In career-technical education, students are required to develop competencies in safety and health relevant to their occupational areas. Health and safety training prepares students to understand their rights as specified by law and to take appropriate actions to protect themselves and their co-workers from occupational safety and health hazards. The Safety Checklist Program could be used as one of a number of teaching tools to assist students in attaining competencies related to awareness of safety and health hazards and the federal laws designed to minimize these hazards.

While the manual addresses regulations that may apply to schools, it will acquaint both teachers and students with the types of issues they should be concerned about in the workplace. Knowledge of these issues will be relevant to teachers and students involved in cooperative education programs and relevant in the long term to all students in their future workplace.

Classroom Activities

When using the Safety Checklist Program, teachers can do the following activities in their classroom:

- Select a question or hazard-of-the-week from one of the checklists and spend 5-10 minutes each week discussing it with the class.
- Spend part of a class period over several days or weeks having the students accompanying the teacher on an assessment of the classroom using the checklists.
- Have pairs or groups of students do a hazard assessment using the checklists and report to the class. Pairs or groups should suggest ways to remediate the problems identified. The checklists may need to be simplified or adapted depending on the students’ needs.
- Have students identify one or more classroom hazards of concern to them using the hazard index, or divide hazards among the class members. Each student can select a portion of the checklist pertaining to the particular hazard(s), research or obtain additional information on this hazard and lead the rest of the class through a discussion of the hazard and a tour using the appropriate checklist.
- Create a safety and health committee on a school-wide basis, in your classroom, or with several other related classes to work on improving safety and health in the classroom and school. Hold an election to have student representation on the committee.
- Invite a speaker from a regulatory agency, local business, or professional safety and health organization to discuss safety and health issues relevant to the particular course or program.
- Have students read [Appendix C: Suggestions for Facilitating Inspections](#). Then let them role-play a mock inspection. Students may take the roles of the inspector and the “inspected” or the teacher may play one of the roles. Have the class critique the experience in terms of how both parties worked toward making the event cooperative rather than adversarial. As an alternative, arrange for an actual inspection to occur during class hours to allow students to participate in the event.

Additional Tips and Information

Educators of career-technical programs can use various curricula to accompany the Safety Checklist Program that is available from educational, professional and commercial organizations. One example of this type of curricula is *Occupational Health Awareness: Lessons for Vocational Students in Secondary Schools*. This teaching module was developed by the New Jersey Department of Health (DOH) and the Environmental and Occupational Health Sciences Institute (EOHSI). It was designed to help students identify occupational safety and health hazards by conducting hazard assessments at their school and at home. They also learn basic principles for hazard control and how to develop emergency response plans. The teaching module uses a wide range of teaching methods, such as role play, problem solving, discussion, and hands-on experience. Teaching materials include lesson plans, slides, a video, handouts, and sample exams.

Appendix C: Suggestions for Facilitating Inspections



Disclaimer: Although each Federal and State regulatory agency has its own procedures for handling safety and health audits, the following sections suggest practical ways to prepare for and assist in safety and health inspections. However, NIOSH does not imply that these written suggestions are the only ways to prepare for and assist in safety and health inspections.

Introduction

Although Federal OSHA does not have jurisdiction over State and local government employees, including those in public schools, the 26 States that operate OSHA-approved State plans are required to extend their State standards to these workers (refer to [Appendix A, Federal Government Agencies, OSHA State-Plan States](#)). State standards and enforcement are either identical to, or at least as effective as, Federal OSHA. In addition, EPA enforces several OSHA standards, including “hazardous waste operations” (29 CFR 1910.120), in workplaces in the public sector in States without OSHA-approved State plans.

The 26 States with OSHA-approved State plans, in addition to enforcement, have extensive voluntary compliance programs, including on-site consultation services available to public sector employers. In States without State plans, although Federal OSHA has no authority to inspect nor enforce standards in public schools, the local OSHA office may be able to provide hazard recognition

assistance and technical support. Extensive compliance assistance information is also available on [OSHA's Web site](#) and in Federal and State publications.

To assure that inspections run smoothly, follow the recommendations outlined here: Both career-technical educational program administrators and enforcing agencies have expressed that they want inspections to be cooperative rather than adversarial events. To do this, inspectors need to be understanding of the obstacles the school faces in controlling hazards and considerate of the time and efforts needed to remediate such hazards.

General Suggestions for Facilitating Inspections

Have an ongoing environmental safety and health program in place.

Most inspectors are impressed when they see that a school is concerned with a safe environment on a *daily* basis, not just before or after an inspection. Such programs help schools take a proactive approach to safety. For this reason, it is important that there be an ongoing program and that you make the inspector aware of it. The elements of a good program are described in [Chapter 2: How to Establish an Effective Occupational Safety and Health and Environmental Safety Program](#).

Invite the enforcement agencies to do proactive training and education.

Part of an environmental safety and health program involves training and educating key personnel and high-risk employees and students. Take advantage of the enforcement agencies: they all offer free outreach, compliance assistance, and education services; including training and information sessions. They can also supply you with free bulletins, videos, presentations, fact sheets, and other helpful documents. They are often willing to send staff to regional or annual conferences, meetings, or training programs. Have them speak to your school about their inspection procedures or policies and other resources available to you.

Use the enforcement agencies' free consultation and technical assistance services before inspections take place.

Take a proactive approach by dealing with problems before you receive a citation. Agencies prefer to help you be proactive with regard to safety, rather than to conduct formal inspections. If there is a suspected violation or hazard, call the appropriate agency's consultation program and ask for help. Many consultation programs are designed to help identify problems and offer solutions for correcting them, as well as offering information about other free resources. Consultation personnel are well-trained safety and health professionals. If an agency is not able to help, ask them to refer you to someone who can. For example, [OSHA offers free consultation services in each State](#) .

Have designated safety representatives and personnel available at the inspection.

When an inspector arrives, he or she must have access to people with a good overview of the safety program. It will help to have representatives who are informed and can describe steps that have already been taken to solve problems.

P rearranged Inspections

Find out the scope of the inspection.

Find out whether the inspection will be broad or specific, who will be interviewed, what locations will be inspected, what records will be reviewed, and what practices will be observed. Ask the inspector what documents would be helpful. Do not be reluctant to ask questions.

Notify the appropriate people in your school district about an upcoming inspection.

Enforcement agencies have different protocols for determining contacts. For example, some inspectors may contact only the county superintendent; others may contact the business administrator or the district superintendent. The school must establish their own internal protocol for determining the person to notify for inspections. Make sure that those who want to be involved in the inspections are notified. Having the union representative present is often very helpful for the inspector, and it is required by some regulations because:

- the representatives can coordinate and prioritize employee complaints
- confusion is avoided by having all sides of an issue aired at once, and
- it is easier to arrive at abatement procedures and dates that are acceptable to all parties involved.

Schedule the inspection for a convenient time.

Finding an ideal time for an inspection may be difficult, because the inspector often has to observe a class or process in progress. However, most enforcement agencies will be accommodating if the school offers reasonable opportunities for the critical personnel to be present. Aim for a date that is not as busy for the key personnel. Remember that the inspector may need adequate notice to reschedule inspections, especially those that involve numerous parties.

Gather necessary documents in advance.

Have appropriate blue prints, purchase orders, organization charts, injury and illness reports and records, material safety data sheets, hazard communication inventories, etc. available for inspection. Have extra copies made in advance.

Gather other important information in advance.

In addition to the above documents, gather other useful information before the inspection (for example, the status of obtaining parts or services to correct a problem). To keep a general inspection focused and to save time, ask a union representative if applicable, or other suitable representative to survey employees for complaints or health symptoms in advance.

Arrange for necessary access to equipment or locations.

Make sure there is access to areas or equipment that is normally locked or requires security clearance. Have a ladder and flashlight ready. Always have spare hardhats, safety goggles, etc. for people who accompany the inspector.

Unannounced Inspections

Accept unannounced inspections.

Some agencies are mandated to conduct unannounced inspections (e.g., the Occupational Safety and Health Administration).

Immediately notify the appropriate people to participate in the inspection.

Have someone meet with the inspector as soon as possible.

Be ready to respond to the inspector's questions or comments.

They are made with the intent of identifying and correcting hazards.

Steps to Take During an Inspection

Explain the chain of command and key responsibilities

Send the appropriate people.

Send someone knowledgeable about the particular hazards being investigated as well as the person responsible for the entire safety program at that site.

Explain what actions have already been taken.

Present the facts.

Not giving inspectors all the facts will make the case worse. If the school is aware of an existing hazardous condition that was not or could not get corrected, this potentially makes the condition a “willful” violation.

Save time by delegating the search for documents and personnel.

Delegate the responsibility of finding and copying records to someone who does not have to attend the inspection. Secure only those documents requested by the inspector. Similarly, have someone else schedule time for the inspector to meet with key individuals (i.e., maintenance personnel, safety officer, teacher). Offer to mail documents or set up telephone interviews if needed.

Accompany the inspector on his/her walkthrough.

Have someone, preferably the site safety person, stay with the inspector during the entire inspection. Also, if the school has one or many unions, it may be appropriate to have a union steward or other employee representative present during the walkthrough. Have that person take notes and pictures as appropriate.

Be available.

During the inspection, make sure that you will be available. If the inspectors asks, give out the business cards or names, phone numbers, and titles of key personnel who attended the inspection and those who could not attend.

Ask for explanations of citations.

The inspector should be able to give an adequate explanation of why the regulation exists.

Ask for the inspector's help in abating a violation.

If the inspector cites the school, ask to help for a feasible solution since they may have seen similar problems corrected. In some cases, the law requires inspectors to provide a feasible solution. Ask them for additional resources and contacts in other career-technical education programs or safety and health organizations that have dealt with similar problems and solutions to those problems.

Explain any obstacles that may be faced in trying to correct a problem.

Explain the budget process and time constraints. The inspector may have the flexibility to arrange for convenient abatement deadlines. In some cases, abatement time requirements may need to be discussed with the inspector's supervisor. If necessary, ask the inspector about the procedures for contesting abatement deadlines.

If there are problems with the inspection, let the inspector or his/her supervisor know.

If the inspection did not go well, discuss it as soon as possible with the inspector (sometimes there is a lag time between an inspection and a report or citations). In some cases, rights to contesting a citation are lost for not responding quickly.

Appendix D: Emergency Procedures in Schools in the Event of a Chemical Spill



Introduction

Four major sources of regulations are may apply to emergencies involving a chemical spill. A brief overview of the major requirements of these regulations follows.

Employee Emergency Plans and Fire Prevention Plans (29 CFR 1910.38)

This OSHA regulation gives the requirements of plans for the effective evacuation and accounting for employees in case of an emergency, e.g., chemical spill. The written evacuation plan must address, at a minimum, the following:

- Emergency escape procedures, signals, and routes
- Procedures for employees who must remain in the facility to shut down equipment before they evacuate
- Procedures for accounting for all employees
- Rescue and medical duties
- Preferred mechanisms for employees to report emergencies
- Names and job titles of employees who can be contacted for more information regarding evacuation plans
- A list of the major workplace fire hazards and their proper handling and storage procedures, potential ignition sources and their control procedures, and the type of fire protection equipment or systems that can control a fire

All employees who assist in the evacuation must be trained on how to implement their function. Post emergency telephone numbers near telephones, on employee notice boards, and in other conspicuous locations (see OSHA 29 CFR 1910.165). All employees who are affected by the evacuation plan must be trained in its contents and implementation. Update the plan and training as procedures and or evacuation routes change.

Subpart C – Preparedness and Prevention and Subpart D – Contingency Plans and Emergency Procedures

The EPA regulations (40 CFR 265.30 to 265.56) establish procedures to ensure that emergencies are planned for and minimized in order to successfully protect the environment and surrounding community (See the [Hazardous Waste](#) checklist). To minimize hazards from releases of hazardous materials to air, soil, or surface water, the written plan must include the following:

- Description of arrangements with local authorities and contractors to assist in spill cleanup and notification activities
- Name(s) of the emergency coordinator(s) for the school
- Emergency equipment and corresponding locations of fire extinguishers, spill control equipment, etc.
- Available decontamination equipment
- Evacuation procedures, routes, and notification signals

This plan must be kept up-to-date and submitted to local police, fire, and rescue departments and to the local emergency planning committee and any emergency response teams who may respond to such an event.

Required steps for handling emergencies include the following:

- Identify the source, character, and extent of the release
- Activate internal alarms
- Notify State and local agencies for help (if necessary)

- Assess hazards to humans and the environment
- Notify authorities if spill poses hazards to the environment or the community
- Check for leaks, pressure buildup, etc.
- Following cleanup, arrange for treatment, storage, and disposal of wastes
- Decontaminate all equipment
- Forward a written report to the EPA Regional Administrator within 15 days

Hazardous Waste Operations and Emergency Response (29 CFR 1910.120)

The OSHA Hazardous Waste Operations and Emergency Response standard covers procedures for handling a chemical spill by designated responders and employees who respond from outside the immediate release area. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel are not considered to be emergency responses within the scope of the standard. Students or teachers should not respond to significant spills because of the extensive training requirements and equipment needed. Trained State, county, or municipal hazardous materials response teams should be brought in if such a spill occurs. These teams will follow the requirements of the hazardous waste operations and emergency response standard that ensures that emergency responders work safely during spill cleanup activities. They will have a written plan that covers the following:

- Pre-emergency planning
- Personnel roles, lines of authority, training, and communications
- Emergency recognition and prevention
- Safe distances, places of refuge
- Site security and control
- Evacuation routes and procedures
- Decontamination procedures
- Emergency medical treatment and first aid
- Emergency alerting and response procedures
- Personal protective equipment and emergency equipment
- Critique of response and followup

This regulation also requires that an emergency coordinator be designated and that an incident command system be followed. Positive pressure supplied-air respirators are required until air monitoring indicates that less protection is safe for the area. Training requirements for responders vary depending on the level of activity in the emergency response. Personnel responsible for stopping leaks and cleaning spills must be trained to the hazardous materials technician level (minimum 24 hours training annually). Medical surveillance is also required for these responders.

If teachers or maintenance employees respond to minor spills, they must have had training covering the hazards of the spilled material and the correct response actions. They also must have the appropriate personal protective equipment along with training on how to use it. In addition, they must know how to dispose of the spilled material following all Federal and State regulations. The regulations listed below may apply to staff with these responsibilities:

- 29 CFR 1910.132 – General Requirements for Personal Protective Equipment
- 29 CFR 1910.133 – Eye and Face Protection
- 29 CFR 1910.134 – Respiratory Protection
- 29 CFR 1910.135 – Occupational Head Protection
- 29 CFR 1910.136 – Occupational Foot Protection
- 29 CFR 1910.1200 – Hazard Communication

Sample Procedure for Handling Chemical Spills at Schools

A sample emergency response procedure consistent with the above regulations is presented here to help schools formulate their compliance plans.

DISCLAIMER:

Each chemical spill incident is a unique occurrence, and procedures for handling such spill may vary among emergency response teams. In this section, NIOSH describes the usual steps taken during an emergency response incident and suggests practical ways to prepare for a chemical spill to cooperate with the emergency responders and incident commander. However, NIOSH does not imply that these written suggestions are the only ways to prepare for and assist in a chemical spill incident.

Review all classrooms to identify spill hazards. All teachers and students should be trained to recognize hazardous material spills and what procedures to follow. This instruction should include information about the effects of hazardous materials on humans and the environment. If a spill is beyond the cleanup capability of the person who created the spill or custodial staff, follow these procedures:

- 29 CFR 1910.132 – General Requirements for Personal Protective Equipment
- Notify the principal and the classroom teacher and ask them to call 911. Tell them the name of the material, location of the spill, and approximate volume of spilled material.
- Evacuate all students from the classroom using the steps in the evacuation procedure (this is a separate document).
- Evacuate adjacent classrooms if the spread of contamination is enough to affect them.
- Do not permit any persons to enter the spill area, contact the spilled material, or place themselves at risk unless they have appropriate training and personal protective equipment.
- Take immediate steps to prevent spilled materials from entering drains or spreading to other environmentally sensitive areas. These steps include placing absorbent materials (stored in classrooms with a high likelihood of a spill) around the perimeter of the spill and blocking drains.

The fire department may dispatch their hazardous materials emergency response team (HAZMAT) to handle the spill. The HAZMAT incident commander is usually the fire department chief and is the senior person responsible for directing all activities during the cleanup effort. The incident commander may take the following steps:

- Dispatch trained emergency responders to the scene, bringing appropriate personal protective clothing such as supplied-air respirators, chemical resistant gloves and suits, and boots. They may also bring communications devices, air-monitoring equipment, and first aid equipment. They may use salvage drums, sorbents, and decontamination equipment stored in areas where there is a high probability of a spill.
- Establish external communication channels between the school and outside parties using the school dispatcher or any other appropriate means of external communication.
- Contact outside agencies including any of the fire, police, emergency medical, health, or emergency management departments if the chemical spill is large.
- Contact the Federal and State spill hotlines if he or she believes at any time during the response that the spill or release represents a hazard to the environment or community.

The incident commander will determine when it is safe to reoccupy the classroom or building by considering air monitoring results and checking all potentially affected classroom equipment for evidence of pressure buildup or leaks, etc. After the completion of the emergency response, the incident commander may convene all responders, the classroom teacher, and the appropriate school administrators to critique the handling of the response, to determine the cause of the incident, and to identify future preventive measures.

Hazardous chemical waste is regulated by EPA. See [Hazardous Waste Self-Inspection Checklist](#) the checklist on Hazardous Waste.

Special Note

Compliance with all of these regulations is essential to ensure the safe and effective resolution of hazardous materials spills. The planning regulations can be met by preparing separate plans or by developing a separate evacuation plan and integrating the requirements of all regulations into a single coordinated plan. Schools should also establish communication with the nearest hazardous materials response team to facilitate prompt action if the need arises.



Special Note

OSHA regulations are revised from time to time. The best place to find the most current OSHA regulations is at the OSHA Web site. The following Internet addresses will provide the most current regulations and information on General Industry and Construction.

OSHA Regulations

- [OSHA homepage](#) 
- [For General Industry Regulations](#) 
- [For Construction Regulations](#) 

Text of Selected Regulations

Subpart E: Means of Egress

- [29 CFR 1910.38](#)  (Employee Emergency Plans and Fire Prevention Plans)

Subpart I: Personal Protective Equipment

- [29 CFR 1910.132](#)  (General Requirements)
- [29 CFR 1910.133](#)  (Eye and Face Protection)
- [29 CFR 1910.134](#)  (Respiratory Protection)
- [Appendix A to § 1910.134](#)  (Respirator Fit Testing Procedures) Mandatory
- [Appendix B-1 to § 1910.134](#)  (Respirator User Seal Check Procedures) Mandatory
- [Appendix B-2 to § 1910.134](#)  (Respirator Cleaning Procedures) Mandatory
- [Appendix C to § 1910.134](#)  (OSHA Respirator Medical Evaluation Questionnaire) Mandatory
- [Appendix D to § 1910.134](#)  (Information for Employees Using Respirators When Not Required Under the Standard) Mandatory
- [29 CFR 1910.135](#)  (Head Protection)
- [29 CFR 1910.136](#)  (Occupational Foot Protection)
- [29 CFR 1910.138](#)  (Hand Protection)
- [Appendix B to Subpart I to Part 1910](#)  (Non-Mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection)

Subpart K: Medical and First Aid

- [29 CFR 1910.151](#)  (Medical Services and First Aid)
- [Appendix A to § 1910.151](#)  (First Aid Kits) Non-Mandatory

Additional Resources



Disclaimer: Some of the additional resources listed below were provided by other organizations; they are intended to supplement the occupational safety and health information in this product. NIOSH is not responsible for the contents or accuracy of material obtained from these organizations. Furthermore, mention of any company or product does not constitute endorsement by NIOSH. In addition, citations to Web sites do not constitute NIOSH endorsement of the sponsoring organizations or their programs or products. Also, NIOSH is not responsible for the content of these Web sites.

Agricultural Safety—Simple Solutions: Ergonomics for Farm Workers

Provides simple ergonomic solutions for farm workers to prevent backaches and pain in the shoulders, arms, and hands. Practical solutions are included for forming worker-management ergonomics teams to discover simple solutions. The “tip sheets” in this booklet show how to make or order inexpensive new tools or to modify existing ones to reduce the risk of pain. (NIOSH Publication No. 2001-111) For additional information about agricultural safety, visit the [NIOSH topic page](#)

[Agricultural Safety—Trac-Safe](#)

A facilitator's manual for a community-based program to reduce injuries and deaths from tractor overturns. (NIOSH Publication No. 96-108)

[National Agricultural Safety Database \(NASD\)](#)

Provides a link to an on-line database that contains NIOSH publications on the following topics: Accident Causes and Prevention; Animals; Back Safety/Lifting/Slips/Trips/Falls; Chemicals/Pesticides; Child Safety; Electrical Safety; Ergonomics; Farming With Disabilities; Federal and National Materials; Fire Safety; First Aid; Fruit and Vegetable Crop Handling/Harvesting/Storage; General Safety and Health; Grain Handling/Harvesting/Storage; Hearing Conservation; Heat/Cold Illnesses; Skin Cancer; Home Safety; Ladder Safety; Lightning; Machinery Safety; Manure Pits/Farm Ponds/Wells; Personal Protective Equipment (PPE); Personal Safety and Health/Stress; Sanitation/Hygiene; Standards/Regulations; Safety Programming; Supervising for Safety; Workers' Compensation.

Biohazards

Biohazards are organisms and products of organisms that present a risk to humans. This resource provides information about transmission of infectious biological agents, symptoms of exposure, treatment, and prevention methods.

- [Anthrax](#)
- [Avian Influenza](#)
- [Hantavirus](#)
- Histoplasmosis ([Employers](#)) – ([Workers](#))
- Severe Acute Respiratory Syndrome (SARS)
- [West Nile Virus](#)

[Construction Risk Control Integration Guide](#)

A training curriculum for identifying construction hazards and safety controls. Covers all phases of residential construction, light-building construction, commercial and industrial construction, highway construction, concrete and masonry technology, and soils, excavations, and mining. (Developed by University of Wisconsin/Stout, The St. Paul Companies, Construction Safety Council, and Construction Industry; used with permission.)

[Conversion Calculator for ppm and mg/m³ Air Concentrations](#)

A useful calculator for converting ppm to mg/m³ and mg/m³ to ppm. The molecular weight of the chemical substance can be obtained from the Periodic Table at this location. Since atomic weight is necessary for determining the ppm or mg/m³, a Periodic Table of the Elements is provided. [Periodic Table](#)   (courtesy of Los Alamos National Laboratory).

[Electrical Safety—Safety and Health for Electrical Trades—Student Manual](#)

Part of a safety and health curriculum for secondary and post-secondary electrical trades courses. The manual is designed to engage the learner in recognizing, evaluating, and controlling hazards associated with electrical work (NIOSH Publication No. 2002-123). A [PDF Version](#) is also available.

Electronic Library of Construction in Occupational Safety and Health (eLCOSH)

Provides a link to an on-line database that contains training programs for construction safety and health; Masonry Information Bulletin: Good Scaffold Practices 1—From the Ground Up; 28 discussion guides for tailgate/toolbox talks and meetings; 31 worker pocket cards/brochures; and 5 additional documents in construction safety.

[Emergency Action Plan \(template\)](#)

Contains ready-to-fill templates for designing an emergency action plan for a facility that covers the following: emergency personnel, evacuation routes, emergency phone numbers, utility company emergency contacts, emergency reporting and evacuation procedures for medical, and fire emergencies, extended power loss, chemical spill, structure climbing/descending emergencies, bomb-threat checklist, severe weather and natural disaster emergencies. (Developed by Lewis Payton, Auburn University, AL; used with permission.)

[EPA Office of Children's Health Protection](#)

This Web site provides links to information about children's environment and health.

[Ergonomics](#)

Provides practical information about reducing stress and eliminating potential injuries and disorders occurring at computer workstations and in laboratory and industrial settings. Also includes an [Ergonomics Primer](#). (CDC information).

[Eye Safety](#)

Overview of eye hazards and injuries, types of eye protection, safety for prescription lens wearers, and first aid.

[How to Involve Your Employees in the Safety Process](#)

Provides a set of workplace guidelines to assist management and employees. Includes a 10-step business plan. (40 pages; developed by GatesMcDonald and Company for the State of Ohio Bureau of Workers Compensation, Division of Safety and Hygiene. Recommended by the National Federation of Independent Business/Ohio Chapter; used with permission.)

[Laboratory Safety/Chemicals](#)

Provides a general science-safety checklist, as well as chemical purchasing, labeling, and disposal procedures. Also provides accident guidelines and precautions when using plants and animals in the laboratory. Gives guidance on personal protective equipment to be used in the laboratory and information about Federal safety mandates. (15 pages, Council of State Science Supervisors; used with permission)

[NIOSH Small Business Resource Guide](#)

Provides numerous resources useful to owners of small businesses. Included are Web sites, telephone numbers, and addresses of occupational safety and health organizations. (NIOSH Publication No. 2000-148)

[O*NET](#)

Provides a link to three occupational databases developed by the U.S. Department of Labor:

[OSHA and EPA Regulations](#)

Provides links to OSHA and EPA Web sites.

[OSHA Respiratory Protection Advisor](#)

Provides information about how to comply with the new OSHA respirator standard. Provides instruction on the proper selection of respiratory protection and the development of change schedules for gas/vapor cartridges. (Developed by George B. Flynn, Colorado-OSHA; used with permission.)

[Physical Hazard Control](#)

Occupational hazards and problems are identified and possible solutions are offered. (32 pages; compiled by Ohio Bureau of Workers' Compensation; used with permission.)

[Promoting Safe Work for Young Workers—A Community-Based Approach](#)

Provides useful information about forming partnerships with schools; developing teen peer education programs; involving parents; linking with job training programs; including health care providers; working with employers; reaching the broader community; forming partnerships with schools; child labor laws; agencies and organizations; and resource materials. (Developed in collaboration with Massachusetts Department of Public Health and the Education Development Center, Inc.; University of California at Berkeley Labor Occupational Health Program; and University of California at Los Angeles Labor Occupational Safety and Health Program. (NIOSH Publication No. 99-141)

Safety Curricula for Engineering Schools

Nine NIOSH-funded publications containing instructional modules on the following topics:

- [Agricultural Safety And Health for Engineers](#)
Developed by the American Society for Agricultural Engineers (ASAE) with support from NIOSH. (Used with permission; copyright 1994.)
- [An Applied Approach to Epidemiology and Toxicology for Engineers](#) 
June 1993
- [An Introduction to Electrical Safety for Engineers](#)
June 1993
- [Application of Hazard Evaluation Techniques to the Design of Potentially Hazardous Industrial Chemical Processes](#)
March 1992
- [Construction Safety for Civil Engineers](#)
October 1994
- [Fire Protection](#)
May 1997

- [Incorporation of Occupational Safety and Health into Unit Operations Laboratory Courses](#)
August 1991
- [Occupational Diseases](#)
August 1991
- [System Safety and Risk Management](#)
March 1998

[Safety Guide for Career-Technical, Trade, and Industrial and Technology Education](#)

An informational safety document for trades containing chapters on General Safety, Hazardous Materials, Auto Paint and Body, Auto Mechanics, Commercial Foods, Construction Trades, Drafting, Graphics, Metals, Welding, and Safety Checklists. (459 pages; illustrated; developed by Superintendent for Public Instruction, State of Washington; used with permission. Updated September 2002)

[Safety Process Guide](#)

Provides steps for developing and implementing an effective safety and health program. (83 pages; developed by Wausau Insurance Companies and GatesMcDonald and Company; used with permission.)

[School Chemistry Laboratory Safety Guide](#)

A sixty page safety guide for high school science and chemistry laboratories. Provides practical safety information in a checklist format useful to both groups to reduce chemical injuries in a laboratory environment. (NIOSH Publication No. 2007-107)

[School Health Guidelines to Prevent Unintentional Injuries and Violence](#)

This report summarizes school health recommendations for preventing unintentional injury, violence, and suicide among young persons. The report also includes occupational safety and health recommendations. (CDC publication MMWR 50 (RR22) 1-46, December 2001.)

Schoolplace/Workplace Violence

- [National Institute for the Prevention of Workplace Violence](#) 
- [Workplace Violence Awareness and Prevention \(OSHA\)](#) 
- [NIOSH: Violence in the Workplace](#)
- [Violence in the Workplace: Risk Factors and Prevention Strategies](#)
NIOSH Current Intelligence Bulletin 57 (NIOSH Publication No. 96-100)

[Stress at Work](#)

A publication that discusses causes of job stress, provides a comprehensive approach and steps toward prevention, and includes examples of intervention (18 pages) (NIOSH Publication No. 99-101) For additional information about stress at work, visit the [NIOSH topic page](#)

[Training Intervention Effectiveness Research \(TIER\)](#)

Provides a model for research on training effectiveness. (NIOSH Publication No. 99-142.)

[U.S. Department of Labor YouthRules!](#)

YouthRules! Strives to educate teens, parents, educators, employers, and the public on Federal and State rules regarding young workers. This website provides links to printed materials, departmental sites, and information about outreach events, training seminars, and partnering activities.

[Young Worker Safety Resources](#)

A compilation of 11 pages and more than 40 Web site links containing resources for obtaining occupational safety and health curricula and teachers' guides; industry-specific curricula, including farm safety; educational resources for teens; resources for employers and school-to-work programs; State-specific resources for employers and school-to-work programs; educational resources for parents and others; and reports and guidelines for professionals. (Compiled by the Young Worker Safety Resource Center, 2001; used with permission.)

“mg/m³ to ppm” or “ppm to mg/m³”

The conversion equation is based on 25 °C and 1 atmosphere:

$$X \text{ ppm} = (Y \text{ mg/m}^3)(24.45)/(\text{molecular weight})$$

or

$$Y \text{ mg/m}^3 = (X \text{ ppm})(\text{molecular weight})/24.45$$

Fill in either the “ppm” value (X) or the “mg/m³” value (Y) AND the molecular weight of the compound. Then press the “Calculate” button.

ppm: mg/m³: molecular weight:

ppm value:

mg/m³ value:

Based on the Molecular Weight of:

Remember to consider significant digits in your use of the answer.

To determine molecular weight, add the atomic weights of all atoms present in the chemical formula for a particular substance.

[Periodic Table](#)  (courtesy of Los Alamos National Laboratory).

Commonly Asked Questions and Answers

Below are some commonly asked questions from participants during the development of the New Jersey Safe Schools Manual, on which the Safety Checklist Program is modeled:

Q: Do the checklists cover all potential hazards in my program?

A: The checklists were developed only for hazards covered by current Federal regulations. It was beyond the scope of this project to include checklists for unregulated environmental, safety, and health hazards. A career-technical program or course may still contain hazards, even if all of the checklists indicate good compliance. In [Appendix A: \(Resource Agencies and Organizations\)](#), an effort was made to locate resources for additional information about some of the hazards not covered by regulations.

Q: Are the checklists mandatory? Why should my school use them?

A: The completion of the checklists is not mandatory, but they are recommended as one tool that can greatly increase your school’s ability to maintain a classroom that is safe for teachers and students.

Q: Are the checklists all I need for a safety and health program at my school?

A: Self-inspection checklists are only one of many elements that need to be in place to protect people and the environment. Other essential elements include management commitment, employee and student training and involvement, student safety and health competency testing, established procedures to follow in an emergency, and a coordinated effort to eliminate any hazards that are found. Many of these topics are discussed in *Chapter 2: How to Establish an Effective Occupational Safety and Health and Environmental Safety Program*. Suggestions for involving students are covered in the *Appendix B: Using the Safety Checklists to Teach Students About Occupational Safety and Health*.

Q: Do the checklists deal with occupational safety and health and environmental safety regulations applicable to the whole school?

A: The checklists address only regulations that are directly related to career-technical classroom programs and courses. For example, the Asbestos Hazard Emergency Response Act of 1986 (AHERA) regulations issued by the U. S. Environmental Protection Agency (EPA) covering management of asbestos-containing materials in schools are not addressed in this manual (although checklists and regulations pertaining to asbestos in brake linings are covered). These regulations are relevant to schools in general but are not directly related to career-technical programs and courses. On the other hand, the hazardous waste disposal and electrical checklists and others can be used in other programs and classrooms.

Q: Do the checklists cover cooperative education off school grounds?

A: The checklists are designed to cover environmental, safety, and health regulations that are potentially applicable to public career-technical classroom settings on school grounds. Non-school, non-classroom situations and locations, such as cooperative education programs at the worksite, were not specifically considered in the development of the checklists. However, many of the checklists and regulations apply to these other situations.

Q: Do the checklists cover science classes and adult career-technical education classes?

A: Although important safety and health regulations need to be considered in adult career-technical education classes and science classes, these checklists have not been developed with these target classes in mind. Many of the checklists, however, also apply to these areas.

Q: If I don’t identify any problems when I use the checklists to evaluate my classroom, will I be in compliance with all Federal, State, and municipal regulations?

A: State and municipal regulations were not included because they are different for each State and community. In addition, an effort was made to make the checklists as comprehensive as possible without being excessively long and cumbersome. As a result, the fine details of some regulations have been generalized or consolidated. In addition, constant changes in regulations, legitimate differences in interpretation, court decisions, and unanticipated circumstances prevent any self-inspection checklists from guaranteeing compliance with all regulations.

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- Two focus group meetings with Career-Technical educators and NJ Department of Education staff gave valuable feedback on drafts of the manual.
- A written needs assessment survey was completed by over 100 teachers.
- The checklists were pre-tested at several schools with teachers and administrators accompanying project staff after school hours on walkthrough inspections of their classrooms.
- A planning group comprised of school administrators and teachers was convened to provide guidance in the pilot-test and training procedures.
- A pilot-test of the manual was done in 12 schools selected for their broad range of ethnic, geographical and socio-economic backgrounds.

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Safe Schools Project Title Suggested by: Marcella Massopust, Perth Amboy High School

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☐ Yes ☐ Partly ☐ No