Safety Handbook for

Public Employers

A resource guide for Public Employers



Introduction

Introduction

The safety and health of employees is of primary concern to all employers. After all, employees are your most valuable resource.

BWC is committed to helping public employers eliminate injuries and illnesses in the workplace. BWC's Division of Safety & Hygiene (DSH) has a long history of helping employers statewide. BWC has many experienced safety and health consultants that specialize in working with public employers. Many of BWC's field staff have more than 20 years of experience in the public sector. BWC looks forward to working with public employers throughout Ohio. Please join BWC in making occupational safety and health a way of life in your organization.

The primary objective of this manual is to share specific safety and health work practices that are successful in the public sector. The safety practices outlined in this manual have been provided directly from public employers statewide. These employers shared their successes with the hope of helping other public employers eliminate needless occupational injuries and illnesses.

You should not consider this guide a complete and exhaustive list of all possible employee safety and health management strategies. Some public employers may have greater or fewer needs, or unique needs not addressed here.

Safety isn't the only thing you can do to reduce this cost. You can also lower your premiums by proactively managing your workers' compensation claims. This includes investigation, early reporting of injuries and working with your employer service specialist and claims service specialist.

To learn more about BWC's other safety services, visit ohiobwc.com, or call 1-800-OHIOBWC, and request a *Safety Services Catalog*.

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Knowing you and your industry

Workplace safety success stories

City of Portsmouth

- Enrolled in BWC's Premium Discount Program
- Implemented BWC's 10-Step Business Plan
- Enrolled in BWC's Drug-Free Workplace Program
- Accepted into group rating in 2000
- Approximate savings of \$75,000 annually

Brunswick City School District

- Workers' compensation rate was 70 percent penalty rated (70 percent above base rate)
- Received commitment for workplace safety programs from top administration
- Enrolled in BWC's Premium Discount Program
- Started attending BWC's workplace safety training courses
- Negotiated transitional work program into labor contracts
- Joined Ohio School Board Association's group rating program
- Five years later, workers' compensation rate was 52 percent credit (52 percent below base rate)

Ashtabula Area City School District

- Workers' compensation rate was 31 percent penalty rated (31 percent above base rate)
- Enrolled in BWC's Premium Discount Program
- Developed comprehensive workplace safety programs
- Established a health and safety committee
- Continual workplace safety education for all employees
- Six years later, workers' compensation rate was 48 percent credit rated (48 percent below base rate)

Dollars and sense of safety

Similar to many private businesses, most public employers struggle with the multitude of financial issues around budgetary control. Budget controls and even budget cuts are a constant topic of debate for public employers.

There are two primary methods for controlling a budget. The first way is to increase revenues and the second way is to cut expenses. Given the chal-

lenges involved with increasing revenues, most public employers turn to cost-cutting measures to help control their budgets. These cuts may take the form of reduced staffing, reduced supplies and equipment, postponed capital expenditures and cuts in services.

Workers' compensation premium also is a cost factor. However, it is a manageable cost, not a fixed cost.

Where does the line item for workers' compensation costs fall in your budget? How much premium do you pay each year? How are you managing your workplace safety to minimize the impact of workers' compensation on your budget? What would you do with the money you saved by controlling your workers' compensation expenses?

The direct cost of workers' compensation is only one of many cost factors that an effective safety and health process can impact. There are a host of indirect costs that can affect your organization's performance. In addition to reduced injuries and illnesses, many organizations that effectively manage their safety and health processes report increased employee morale, decreased absenteeism, reduced turnover, and fewer complaints and grievances. These benefits reflect the culture of an organization that values its employees in every aspect, including safety.

Identifying concerns

Safety-management strategies

Workers' compensation claims for needless injuries and illnesses are not wise expenditures. This money would be better spent on proactive, accident-prevention strategies. Implementing effective safety-management strategies will help drive down injury trends and reduce workers' compensation rates and premiums. You can then allocate these cost savings to more productive uses within your organization. This section outlines successful safety-management strategies public employers use.

Active and visible commitment from top administration

- You can prevent many injuries or illnesses with proper safety and risk management.
 The key to success lies in the organization's culture. Active and visible commitment from top administration is necessary in demonstrating your organization values its employees' health and safety. Once the commitment to safety is in place with top administration, begin to address safety responsibilities and accountability within each facility and across all departments.
- Consider developing and issuing a safety policy statement (a mission or charter statement) that clearly communicates top administration's commitment to employee safety and health. It should outline the activities and behaviors top administration will exhibit and for which the organization will hold them accountable. It also should outline the activities, behaviors and expectations of all employees throughout the organization.

Safety responsibility and accountability

- Include safety measures in the organization's performance review process. Set safety goals, communicate expectations, establish performance measures and hold people accountable.
 For example:
 - Performance measures for operational-level employees should focus on such activities as following safe work practices, wearing appropriate personal protective equipment (PPE), attending safety meetings and train-

- ings, participating on a safety committee or contributing safety-improvement suggestions, and promptly reporting injuries and illnesses;
- Performance measures for department-level employees (e.g., supervisors, department heads) should include monitoring and supporting safety activities at the operational levels, conducting safety audits, facilitating safety meetings and training, participating in and supporting the departmental safety committee, investigating reported injury and illness cases, tracking departmental injury trends, and coordinating return-to-work and claims-management processes;
- 3. Performance measures at the top administrative level (mayor, commissioner, manager, administrator, chief executive officer, chief financial officer, etc.) may include participating in an executive safety steering committee, tracking and measuring departmental safety activities, and tracking departmental and organizational results. Results could include reduction in injuries and workers' compensation costs, as well as impacting the total budget. It is vital that top administration send a clear and consistent message that safety is critical and will not be compromised. They must lead by example, provide the necessary resources and remove barriers within the safety systems that restrict or prohibit safety performance.
- Several successful public employers have established a chargeback system to hold departments accountable for safety and risk management. Each department (director, manager, supervisor, etc.) is responsible for managing the limited funds allocated to his/her department. A chargeback system tracks all occupational injuries and illnesses, and the respective costs, and assigns those costs to the departmental budgets where the injury or illness occurred. Since injury and illness costs negatively impact each department's budget, the departmental manager will tend to manage safety and accident-prevention activities more closely.

 Successful public employers establish a riskmanagement function. Appoint a risk manager who is responsible for coordinating and supporting the safety process. Provide him or her with the budget, tools, training and authority to act.

Safe work practices and training

- Employees also must be committed to a safe work environment, as it is their health they are protecting. Public employers must develop safe work practices and communicate them effectively to employees. It's necessary to develop specific safe work practices for each department depending on the risks associated with the work performed.
- Safe work practices are a supplement to other management actions, such as designing an effective workplace and integrating safety into all job functions. Be sure to develop safe working practices that are reasonable and specific. Practices that cannot be enforced will impair the effectiveness of other safe work practices.
- The most effective safe work practices are those in which the employees performing the work help develop the practices. People tend to buy into the safety process more if they are involved in the process.

Employee participation, safety committees and steering committees

 Some public employers found success by implementing an executive or labor/management safety steering committee. The committee's purpose is to address and oversee safety-management practices from an organizational basis. These committees focus on the big picture, initiate policy and procedure changes, and monitor and support activities at the departmental levels. As indicated above, membership on this committee you can limit to top administration (departmental directors, commissioners, managers, etc.). However, including union leadership at this level can reap powerful benefits. Adding the union's perspective to the discussion tends to result in better and more informed decisions, minimizes resistance to implementation and enhances

- labor/management relationships.
- Departmental employee safety teams tend to focus on specific operational concerns. They provide a channel of communication between the steering committee and departmental employees. They also help educate employees on the potential hazards, causal factors and methods to control/eliminate hazards. The teams should meet regularly, but not less than quarterly. The team facilitator can be a member of the team, and is responsible for scheduling the meetings and keeping the meetings on task. You can rotate the facilitator's role among the team members so all have the opportunity to participate. Take and post meeting notes for employees to read. Posting safety concerns, along with the corrective action taken, will help keep employees informed of the progress being made and demonstrate the value of their involvement. Remember that safety is the process of awareness. The more you inform and empower your employees, the safer your organization will become.

Injury reporting and treatment

First, formalize the injury reporting and treatment process, document it in writing and and ensure employees understand the process. Make sure employees report all injuries, no matter how minor, to their supervisors. Consider specifying the time frame in your policy (e.g., within 24 hours). Provide the necessary reporting and treatment contact names and phone numbers.

Ensure the injured employee receives proper medical treatment. We recommend you take the following steps:

- Establish a list of preferred medical providers in your area;
- Visit those providers and discuss treatment protocol and communication procedures;
- Invite providers to tour your facilities to become familiar with your operations;
- Develop written job descriptions that include physical demands analysis and provide copies to the medical providers to assist them with return-to-work orders. (See Return-to-Work section below.);

 Clearly identify who is responsible for completing BWC's First Report of an Injury, Occupational Disease or Death form (FROI) and submitting it to the managed care organization (MCO).

While your injured employee recovers, maintain close contact with him or her. Help him or her through the workers' compensation process. Provide the injured worker with information and answer his or her specific questions. Remind the worker of your interest to get him or her back to work as soon as possible. Hold the injured employee accountable to provide appropriate medical forms and information. Work closely with the injured worker, medical provider and the MCO to return the injured employee back to work as soon as medically able.

Following an accident, immediately conduct an accident analysis (investigation). Identify the person(s) responsible for conducting accident analysis within each department. Typically, the injured employee's immediate supervisor, safety coordinator, member(s) of the safety committee or a combination of these people conduct accident analyses. Provide the individuals who will conduct accident analyses with the appropriate training. DSH offers accident analysis training (train-the-trainer). Contact the training center for more details.

Ensure the accident report form includes accident causation analysis and corrective action. It is critical to learn how and why the accident occurred and to make the necessary changes to prevent the recurrence of a similar accident. Also, consider having an accident review team, which can be the safety committee, assess accidents for the following elements:

- Accident reports completed in a timely fashion;
- Causal factor analysis completed with the accident causes identified;
- Corrective action specified, assigned and completed;
- Coordinate communication between the accident analysis process and the workers'

compensation process. Often these functions are managed separately and, to be effective, they must be closely coordinated.

Provide at least one well-equipped accident analysis kit for each facility.

Enter all recordable injuries onto the Occupational Safety and Health Administration (OSHA) log or other equivalent database. Analyze the OSHA log or injury database to identify and address possible injury trends.

Effective public employers personally attend Industrial Commission of Ohio (IC) hearings along with their third-party administrator (TPA) to clarify information and answer questions related to each case.

Return to work

Returning an injured employee to work as soon as possible is perhaps the single most effective claims-management strategy. Many employers handle return to work on an informal, case-by-case basis and have no formal agreement with the union(s) or contract language on return to work. However, working with the union(s) on all return-to-work cases is critical to the program's success.

Many public employers only return injured employees to jobs within their original job classification. However, several public employers have negotiated return-to-work procedures into multiple-union contracts that permit injured employees to return to any job that meets medical restrictions. With the proper education and thorough understanding of the benefits to all parties, most unions support effective transitional work programs.

Benefits of transitional work include:

- The employee earns full wages, retains all benefits, earns service credits and continues as an active member of the union;
- The employer retains a productive worker and can take advantage of the injured employee's experience. The injured employee can train for temporary replacement workers and help save workers' compensation costs.

Transitional work program

To gradually return the injured worker to his or her original job, a transitional work program uses real job duties that accommodate an injured worker's medical restrictions for a specific time period. Injured workers may recover more quickly and participate in work activities as soon as they're medically able. They also may experience a smoother transition back to regular duty and have improved self-esteem in spite of their medical conditions. Visit ohiobwc. com to find out more about this program.

Assessing your organization's safety-management systems

Organizational change requires an evaluation of the current status versus the desired status. This section provides information for a benchmark assessment of your current status and helps you identify opportunities for improvement. The assessment's effectiveness depends upon implementing continuous improvement action items. Following the assessment section, you will be provided with a sample action plan that will encourage you to identify opportunities for improvement. Review the following information, and identify how your organization compares to this baseline.

BWC's 10-Step Business Plan — Loss-prevention and loss-control assessment

1. Visible, active senior management leadership

Visible senior management leadership promotes the belief that management of safety is an organizational value.

Requires the following:

- Authorize the necessary resources for accident prevention;
- Discuss safety processes and improvements regularly during staff or employee meetings;
- Hold management accountable for accident-prevention activities and for managing accident-prevention processes;
- Use perception surveys, personal interviews and/or behavior sampling to assess the success of the safety process;
- Encourage employees to take an active part in maintaining a safe workplace.

A. Describe how your organization addresses each of the above requirements and provide supporting domentation.)CU
B. Briefly describe planned improvements and activities for the coming year under Step 1.	

2. Employee involvement and recognition

Employee involvement and recognition that affords employees the opportunity to participate in the safety-management process.

Employee participation opportunities include, but are not limited to, the following:

- Safety and health involvement teams, focus groups, or safety and health committees;
- Accident investigations, analysis and assessment;
- Safety and health audits;
- Acting as instructors for safety and health training programs.

A. Describe how employees participate in the safety-management process (e.g., how they are involved in decision making and problem solving), and how often they meet with management to specifically discuss this process.
B. How often do employees meet with management to address the safety-management process?
C. How often does management review the employees' input and incorporate their ideas into the organization's safety culture?
D. Describe how you recognize employees for their actions and efforts to improve the safety-management process (e.g., contributions to decision making, suggestions, etc.). Recognition includes an ongoing process to identify and formally recognize employees for excellence in accident prevention.
E. Briefly describe planned improvements and activities for the coming year under Step 2.

3.	Medical	treatment	and	return-to-work	practices
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Employers shall establish a post-injury or disability-management policy and procedure consistent with the Health Partnership Program (HPP) to help injured or ill employees obtain quality medical care and return to work.

Components of the disability-management procedure will include, at a minimum:

- Informing employees of the selected MCO;
- Informing employees of where to obtain medical treatment;
- Providing employees with other supporting information or materials;
- Immediately reporting accidents and illnesses to a supervisor;
- · Regular supervisory communications with off-work employees while they are convalescing;
- Investigating accidents within 24 hours to identify possible system or process improvements;
- When not prohibited by a labor agreement, implementing a modified duty or transitional work program that allows employees to return to work in a productive capacity during the recuperative period.

A. Do employees know their MCO? ☐ Yes ☐ No
B. Do employees have supporting HPP information or materials? ☐ Yes ☐ No
C. Do employees know where to obtain medical treatment? $\ \square$ Yes $\ \square$ No
D. Describe the accident-reporting process and time frame. How and when do you communicate this information to employees?
E. Describe your medical treatment, accident analysis and correction procedures.
F. Do supervisors contact recuperating injured workers? $\ \square$ Yes $\ \square$ No
G. If the supervisor does not contact injured workers, who does?
H. How often do you contact injured workers?

I. Do you have a modified duty or transitional work policy? \qed Yes \qed No
J. If no, why not?
K. If yes, have you used it? ☐ Yes ☐ No
L. How many times per year have you used your modified duty or transitional work program?
M. Briefly describe planned improvements and activities for the coming year under Step 3.
4. Communication A program of regular communications on safety and health issues to keep all employees informed and to solicit feedback and suggestions.
A. How often do you advise employees of individual and organizational safety performance?
B. What are the procedures for employees to provide workplace safety suggestions, and how do you respond to their suggestions?
C. How do you communicate and ensure all employees are informed of safety matters?
D. Briefly describe planned improvements and activities for the coming year under Step 4.

5. Timely notification of claims Employers must report claims immediately to BWC or its designee, e.g., MCO, who in turn must report to BWC within 24 hours.
However, employers must ensure they report all cases involving lost time of more than seven days to BWC within 14 days of the date of injury or one week after the ill or injured employee notifies them of the noident.
A. Describe your process to report injuries to BWC or your MCO.
3. Do you report claims within the 14 days of the date of injury or within one week of notification from the ill or injured employee? Yes No If no, what causes the delay?
C. What are you doing or what would you do to follow up with your MCO to ensure timely filing of a claim?
6. Safety and health process coordination

Assigning an individual the role of coordinating safety efforts for the company.

Duties must include:

- · Helping management and employees identify accident-prevention and safety and health training needs (possibly through the use of perception surveys, interviews, behavior sampling or other methods);
- Helping supervisors make changes or develop strategies that improve the organization's safety systems and processes;
- Identifying and communicating new safety and health requirements;
- Compiling accident- or illness-related records;
- Tracking progress on safety- and health-related projects;
- Working with employees to optimize safe work practices.

A. Describe how your accident-prevention coordinator(s) perform the above duties.
7. Orientation and training
Orientation and training for all employees.
Orientation must include:
Company safety and health policy; Transpage reasonabilities:
Employee responsibilities;Medical procedures such as how and when to report injuries or illnesses;
Actions to take in case of emergencies;
 Reporting procedures for unsafe practices and conditions; Return-to-work procedures.
A. Describe how you accomplished the above orientation activities.
A. Describe now you decomplished the above orientation detivities.
Develop a written safety- and-health training process that documents specific training objectives and
instruction processes.
At a minimum, training must cover procedures for the safe and efficient use of machinery and tools, including:
Ergonomic risk factors and the prevention of cumulative trauma disorders;
 Chemical hazards, and how to prevent contact or exposure; If appropriate, procedures for lockout/tagout, hot work permits and confined space entry.
B. Pertaining to safety and health, do you survey employees to determine their training needs?
☐ Yes ☐ No What other methods do you use to determine your employees' training needs?

C. Do you have a written training plan designed to meet your employees' needs?
D. Describe how you will meet your employees' training needs for the coming year under Step 7.
8. Written and communicated safe work practices Publish safe work practices so employees have a clear understanding of how to safely accomplish their job requirements.
You must identify, document and make available both general and job-specific safe work practices.
A. Do you have written general safe work practices? \square Yes \square No
B. Do you have written job-specific safe work practices? $\ \square$ Yes $\ \square$ No
C. What jobs still need written, job-specific safe work practices?
D. Do you require employees to sign a statement that they have read, understood and will follow the safework practices?
E. How do you plan on keeping these written practices current and informing your employees?
9. Written safety and health policy Your top executive must sign a safety and health policy document, which is to be given to all new hires. Communicate the policy to all employees and then review the policy with your employees on an annual basis.
A. Do you display this policy on a bulletin board? \square Yes \square No
B. Do you include this policy in your employee handbook? $\ \square$ Yes $\ \square$ No
C. If no to both B and C, where do you post the policy?

D. What other method do you use to inform employees that their safety and well-being is important to the senior officer?
F. How often do you review the safety policy with employees?
10. Recordkeeping and data analysis Internal program verification to assess the success of the company safety efforts, to include audits, surveys and record analysis.
Compile injury- and illness-related data to:
 Identify safety and health process problems; Help manage the compensation process; Provide information necessary for developing solutions to problems.
A. What injury- and illness-related data do you record and compile for analysis?
B. Do you keep an OSHA log? ☐ Yes ☐ No If not, how do you document and track injuries?
C. How has recordkeeping and data analysis helped you identify problems, develop solutions and implement injury-prevention strategies?

D. Do you track accidents that are near misses or close calls?	□Yes	□No	
E. If yes, what trends have you discovered/corrected?			

Safety- and health-management assessment and action plan (Step 1)

Please use the following template to document your plan for improving your safety and health-management process. The assessment section helps you review your organization and identify areas that may not exist or that need improvement. The plan is an effective way to list intended improvements, required action steps, who is responsible for completing each item and the deadline for completing each step. As mentioned earlier, accountability is critical for effectively completing the performance goals. This type of action plan will help you hold people accountable.

Step 1 Visible, active senior				Completion date
management leadership	a, zonig noti	I I	responsible	uuto
a) Authorizing necessary resources for accident prevention				
b) Discussing safety processes and im- provements regularly during staff or em- ployee meetings				
c) Holding management accountable for ac- cident-prevention activities and for managing accident- prevention processes				
d) Assessing annu- ally the success of the safety process by us- ing surveys, personal interviews and/or behavior-sampling				
e) Encouraging employ- ees' to take an active part in maintaining a safe workplace				
		1		

Safety- and health-management assessment and action plan (Step 2)

Step 2 Employee involvement and recognition	a) Doing now	Plan of action (describe) b) Improvements to be made	Person	Completion date
a) Safety and health involvement teams, focus groups, or safety and health				
b) Accident investiga- tions analysis and assessment				
c) Safety and health audits				
d) Acting as instructors for safety and health training programs				
Recognition opportunities	s can include:	<u> </u>		•
a) Recognizing employ- ees for excellence in accident prevention;				
b) Recognizing employ- ees for consistently contributing to safety and health;				
c) Recognizing employ- ees' contributions to continuous improve- ment by participating in problem solving, decision making or perception surveys;				
d) Recognizing employ- ees who suggest safety and health improvements or complete safety and health projects.				

Safety- and health-management assessment and action plan (Steps 3 and 4)

	Tidilagement		ent and action plan (c		
Step 3 Medical treatment and	Plan of action (describe)			Person	Completion
return-to-work practices	a) Doing now	k) Improvements to be made	responsible	date
a) Informing employees of procedures for obtaining medical treatment, including informing employees of the selected MCO					
b) Immediate reporting of injuries and illnesses to a supervisor					
c) Regular communica- tion with injured or ill employees who are off work					
d) Investigating all injuries or illnesses within 24 hours to identify process and corrective measures					
e) When not prohibited by labor agreement, a modified-duty or transitional work program that allows employees to return to work in a pro- ductive capacity during the recuperative period					
Step 4 Communication	a) Doing now	Plan of action	n (describe) o) Improvements to be made	Person responsible	Completion date
a) Quarterly written and/or verbal feedback to all employees on their accident-preven- tion performance					
b) A process for upward and downward com- munication throughout the organization, including obtaining and responding to employee suggestions					

Safety- and health-management assessment and action plan (Steps 4, 5 and 6)

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c) Communication can include memos, bulletin boards, staff and general meetings					
d) Feedback should include the orga- nization's overall safety and health					
Step 5 Timely notification of claims	a) Doing now		on (describe) b) Improvements to be made	Person responsible	Completion date
a) Immediately report claims to the MCO					
b) Verified MCO reports claim to BWC within 24 hours					
Step 6		Plan of action	on (describe)	Person	Completion
Safety- and health-pro- cess coordination	a) Doing now	k	o) Improvements to be made	responsible	date
a) Helping management and employees identify accident prevention and safety and health training needs through perception surveys, interviews, be- havior sampling or other similar methods					
b) Helping supervisors make changes or develop strategies that improve the organiza- tion's safety systems and processes					

Safety- and health-management assessment and action plan (Steps 6 and 7)

c) Identifying and com- municating new safety and health require- ments				
d) Compiling injury- and illness-related records				
e) Tracking progress on safety- and health- related projects				
f) Working with employ- ees to optimize safe work practices				
Step 7 Written orientation and training plan		on (describe) o) Improvements to be made	Person responsible	Completion date
Written orientation and training plan		b) Improvements to be made		
Written orientation and training plan	a) Doing now	b) Improvements to be made		
Written orientation and training plan Safety and health written a) Organization safety and health policy	a) Doing now	b) Improvements to be made		
Written orientation and training plan Safety and health written a) Organization safety and health policy statement; b) Employee	a) Doing now	b) Improvements to be made		

Safety- and health-management assessment and action plan (Step 7)

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e) How to report unsafe practices and condi- tions;				
f) Return-to-work				
procedures.				
Safety and health training	will include:			
a) Hazard				
communication;				
b) Bloodborne pathogens, if applicable;				
п аррпсаые,				
 c) Specific job/task safe work practices and 				
hazard recognition;				
d) Recordkeeping of employee training and				
sign-off of training.				
At a minimum, training m	l ust cover:			
a) Procedures for safe				
and efficient use of machinery and tools;				
machinery and tools,				
b) Ergonomic risk factors,				
including the preven- tion of cumulative				
trauma disorders;				
c) Chemical hazards and				
how to prevent contact or exposure;				

Safety- and health-management assessment and action plan (Steps 7, 8 and 9) d) If appropriate, procedures for lockout/tagout, hot work permits and confined space entry. Step 8 Plan of action (describe) **Person** Completion Written and a) Doing now b) Improvements to be made responsible date communicated safe work practices a) General safe work practices b) Job-specific safe work practices c) Employees sign statement saying they understand and will follow safe work practices Step 9 Plan of action (describe) **Person** Completion Written safety and a) Doing now b) Improvements to be made responsible date health policy a) Top administrator's philosophy on safety and well-being of employees with his/her commitment to quality b) Managers, supervisors, team leaders and employees' responsibilities regarding the organiza-

tion's commitment to workplace safety and

health

Safety- and health-management assessment and action plan (Steps 9 and 10)

outory and mounting	mamagomon	t doooonii	ent and action plan (otopo o am	u 10,
c) Commitment to returning injured or ill employees to work at the earliest opportunity					
d) Communicated to employees verbally, posted on the bulletin board, in the employ- ee handbook					
Step 10 Recordkeeping and data analysis	a) Doing now		on (describe) o) Improvements to be made	Person responsible	Completion date
a) Identify safety- and health-process problems					
b) Help manage the com- pensation process					
c) Provide information necessary for develop- ing solutions					
d) Linkage between accident prevention and profitability					
e) Specific costs associ- ated with safety and health problems and accidents					

Technical support

Public Employment Risk Reduction Program (PERRP)

This program ensures Ohio's public employees work in a place of employment free from recognized hazards. It further states each employee shall comply with all safety and health standards, rules and regulations.

PERRP, through a comprehensive safety and health consultation, strives to ensure a safe and healthy workplace for all public employers/employees. Staff members conduct free, on-site, no-risk inspections at the employer's request to aid compliance with all safety and health standards. The program works with the following public entities: state agencies, county and municipal government agencies, cities, townships, villages, schools, colleges and universities. However, firefighters, emergency medical service personnel, law enforcement and corrections officers are exempt form PERRP coverage.

PERRP provides the following free services at public employer workplaces: safety consultations; OSHA training; written program reviews; site-specific evaluations; and industrial hygiene surveys. PERRP also has a program of statistical data collection; therefore, all public employers must submit their 300A summary log of occupational injuries and illnesses.

For more information on PERRP, call 1-800-671-6858, or visit its Web pages at ohiobwc.com.

Technical safety and health issues

Industrial hygiene issues

Industrial hygiene is the science of anticipating, recognizing, evaluating and controlling workplace conditions that may cause workers' injury or illness. Industrial hygienists use environmental monitoring and analytical methods to detect the extent of worker exposure and employ engineering, workpractice controls and other methods to control potential health hazards.

Due to the Occupational Safety and Health Act of 1970, nearly every employer must implement

elements of an industrial hygiene and safety, occupational health or hazard-communication program.

Work-site analysis

A work-site analysis is an essential first step that helps an industrial hygienist determine what jobs and workstations have potential problems. The industrial hygienist can anticipate potential problems based on the industry type. During the work-site analysis, the industrial hygienist measures and identifies exposures, problem tasks and risks. The industrial hygienist inspects, researches or analyzes how the particular chemicals or physical hazards at that work site affect workers' health. If a situation hazardous to health is discovered, the industrial hygienist recommends the appropriate corrective actions.

Control of hazards

Industrial hygienists recognize that engineering, work practice and administrative controls are the primary means of reducing employee exposure to occupational hazards. Engineering controls minimize employee exposure by either reducing or removing the hazard at the source or isolating the worker from the hazards. Engineering controls include eliminating toxic chemicals and replacing harmful toxic materials with less hazardous ones. Other contols include enclosing work processes or confining work operations, and installing general and local ventilation systems.

Work-practice controls alter the manner in which employees perform a task. Some fundamental and easily implemented work-practice controls include:

- Following proper procedures that minimize exposures while operating production and control equipment;
- Inspecting and maintaining process and control equipment on a regular basis;
- Implementing good housekeeping procedures;
- Providing good supervision;
- Prohibiting eating, drinking, smoking, chewing tobacco or gum, and applying cosmetics in regulated areas.

Administrative controls include controlling employees' exposure by scheduling operations and/or workers' tasks in ways that minimize exposure levels. For example, the employer might schedule operations with the highest exposure potential during periods when the fewest employees are present.

You must use appropriate respiratory equipment when effective work practices and/or engineering controls are not feasible to achieve the permissible exposure limit. You must use appropriate respiratory equipment while instituting such controls and in emergencies. In addition, conditions may require using PPE such as gloves, safety goggles, helmets, safety shoes and protective clothing. To be effective, you must individually select, properly fitt and periodically refit PPE. In addition the employee must conscientiously and properly wear, regularly maintain, and replace PPE as necessary.

Examples of job hazards

To effectively recognize and evaluate onthe-job hazards and recommend controls, industrial hygienists must be familiar with the hazard's characteristics. Major job risks can include air contaminants, and chemical and physical hazards.

Air contaminants

These are commonly classified as either particulate, or gas and vapor contaminants. The most common particulate contaminants include dusts, fumes, mists, aerosols and fibers.

Dusts are solid particles formed or generated from solid organic or inorganic materials by reducing the size through mechanical processes such as crushing, grinding, drilling, abrading or blasting.

Fumes form when material from a volatilized solid condenses in cool air. In most cases, the solid particles from the condensation react with air form an oxide.

Mist is a finely divided liquid suspended in the atmosphere. Mists generate by liquids condensing from

a vapor back to a liquid or by breaking up a liquid into a dispersed state by splashing, foaming or atomizing. Aerosols also are a form of mist characterized by highly respirable, minute liquid particles.

Fibers are solid particles whose length is several times greater than the diameter.

Gases are formless fluids that expand to occupy the space or enclosure in which they are confined. Examples are welding gases such as acetylene, nitrogen, helium and argon; and carbon monoxide generated from operating internal combustion engines or by its use as a reducing gas in a heattreating operation. Another example is hydrogen sulfide, which is formed wherever there is decomposition of materials containing sulfur under reducing conditions.

Liquids change into vapors and mix with the surrounding atmosphere through evaporation. Vapors are the volatile form of substances that are normally in a solid or liquid state at room temperature and pressure. Vapors are the gaseous form of substances, which are normally in the solid or liquid state at room temperature and pressure. They are formed by evaporation from a liquid or solid, and can be found where cleaning and painting of parts take place and solvents are used.

Chemical hazards

Harmful chemical compounds in the form of solids, liquids, gases, mists, dusts, fumes and vapors exert toxic effects by inhalation (breathing), absorption (through direct contact with the skin) or ingestion (eating or drinking). Airborne chemical hazards exist as concentrations of mists, vapors, gases, fumes or solids. Some are toxic through inhalation and some of them irritate the skin on contact; some can be toxic by absorption through the skin or through ingestion; and some are corrosive to living tissue.

The degree of worker risk from exposure to any given substance depends upon the nature and potency of the toxic effects, and the magnitude and duration of exposure.

You can obtain information on chemical-hazard risk to workers from the material safety data sheet (MSDS). The MSDS is a summary of the important health, safety and toxicological information on the chemical or the ingredients of the mixture. OSHA's Hazard Communication Standard requires hazardous materials manufacturers or importers supply this information to the purchaser. Other provisions of the Hazard Communication Standard require that all hazardous substance containers in the workplace have appropriate warning and identification labels.

Physical hazards

Physical hazards include excessive levels of ionizing and nonionizing electromagnetic radiation, noise, vibration, illumination and temperature. In occupations where there is exposure to ionizing radiation, time, distance and shielding are important tools in ensuring worker safety.

Radiation danger increases with the amount of time one is exposed to it. Hence, lessening exposure time can decrease radiation danger. However, sometimes limiting exposure times to nonionizing radiation is not effective. For example, you cannot control laser radiation effectively by imposing time limits. Exposure that is faster than the blinking of an eye can be hazardous.

Distance also helps control exposure to ionizing and nonionizing radiation. You can estimate radiation levels from some sources by comparing the squares of the distances between the worker and the source. For example, at a reference point of 10 feet from a source, the radiation is 1/100 of the intensity at 1 foot from the source. However, in some instances, increasing the distance from a laser source may require miles before the energy level reaches a point where the exposure would not be harmful.

Shielding also is a way to protect against radiation. The greater the protective mass between a radioactive source and the worker, the lower the radiation exposure. Employers should shield workers from nonionizing radiation sources.

You can control noise, another significant physical hazard, by various measures. Measures to control noise include:

- Installing equipment and systems engineered, designed and built to operate quietly;
- · Enclosing or shielding noisy equipment;
- Making certain equipment is in good repair and properly maintained with all worn or unbalanced parts replaced;
- Mounting noisy equipment on special mounts to reduce vibration;
- Installing silencers, mufflers or baffles.

Substituting quiet work methods for noisy ones is another significant way to reduce noise. For example, welding parts rather than riveting them. Also, treating floors, ceilings and walls with acoustical material can reduce reflected or reverberant noise. In addition, erecting sound barriers at adjacent workstations around noisy operations will reduce worker exposure to noise generated at adjacent workstations.

It also is possible to reduce noise exposure by increasing the distance between the source and the receiver, isolating workers in acoustical booths, limiting workers' exposure time to noise and providing hearing protection. OSHA requires employers to periodically test workers in noisy surroundings as a precaution against hearing loss.

Ergonomic risk issues

Ergonomics is the science of designing the work environment to fit within workers' capabilities. Good ergonomic design can positively impact safety and quality. Furthermore, poor workplace design can increase the risk of cumulative trauma disorders (CTDs), such as tendinitis, carpal tunnel syndrome and back injuries.

Risk factors for CTDs are workplace conditions that increase the likelihood of developing them. Workplace CTD risk factors include:

· Repetitive motions;

- Awkward postures;
- Forceful exertions;
- Mechanical pressure on soft tissues;
- Vibration exposure;
- · Inadequate rest.

Reducing worker exposure to these risk factors reduces the risk of CTDs. You can reduce exposure through engineering and administrative controls.

As an example, the city of Mansfield is one of the public employers that participated in BWC's SafetyGRANT\$ program to address ergonomic risk factors in its sewer, parks, water and street departments. Solutions to these ergonomic risks included purchasing low-vibration jackhammers to reduce the effects of using jackhammers, and sewer crane lifts and truck liftgates to help lift heavy loads. An added benefit to the crane lifts and the truck liftgates purchases is that now one person can manage the heavy loads alone. Six weeks after the ergonomic interventions, CTDs incidence rate remained at zero.

Hand-tool design guidelines

Force requirements

- Use counterbalance mechanisms for heavy tools (weight greater than 2 pounds)
- Spring-loaded to eliminate manual exertion necessary to open handles

Shape, size and orientation

- Avoid ridges or flues
- Length of handle minimum of 4 inches
- Handle diameter minimum of 1.5 inches
- Handle span maximum of 3 inches
- When using bent handles, consider direction of motion and force exertion and take into account the workstation layout

Handle material

- Must provide padding
- Should be non-porous
- Must provide good coefficient of friction
- Should be non-conductive

Powered tools

- Use whenever feasible
- Trigger design
- Thumb-activated is preferred over use of other fingers
- If finger activated, use two or more fingers
- Must isolate or dampen vibration
- Must provide protection from exhaust and from heat generated by motor or tool bit

Grasping force

- Minimize grip forces
- Power grips are preferred over pinch grips
- Use properly sized tool grips
- Use two-handed grips to distribute force exertions

Posture

Align wrists with hands and forearms

Material handling

Material flow

- Eliminate unnecessary material handling by combining operations or shortening the distances that materials must be moved.
- Look for crossing paths, loops, backtracking and unorganized flow as materials move from start to finish. Short, direct distances allow you to link workstations by conveyors and reduce carrying distances.
- Never work and/or store materials in aisles. In the event of an emergency, safe passage is necessary.

Job design

- Use mechanized assists such as conveyors, hoists, cranes and carts whenever possible to minimize stresses on the body.
- Minimize reaching requirements. Long reaches lower a worker's lifting capabilities. Design the operation for the smallest person's reach.
- Avoid needless material stacking, storing or placement of work-in-process materials.
- Simplify tasks by combining operations and steps.

The load

- Plan for incoming materials to arrive in suitable containers so parts do not require unloading or restacking.
- Ensure loads are easy to grip by providing handles, cutouts or straps.
- Use vertical baffles or dividers to balance the weight and avoid shifting to stabilize contents in containers.

Workstation layout and design

Reduce repetitive motions

- Let the tool perform the work to reduce physical exertions.
- Keep movements within an acceptable range of motion for efficiency.
- Place more frequently used tools and controls closer to the center of the body.
- Lay out tools and materials so workers can use either hand.
- Use administrative controls, such as job rotation or job enlargement to rest muscle groups.

Reduce awkward postures and static loading

- Provide adjustable-height work surfaces so employees can work without bending their trunks.
- Place buttons and controls for easy reach.
- Allow workers to switch between sitting and standing to alternate postures.

Recordkeeping issues

The following pages present a list of OSHA regulations that require training records, maintenance records or written programs.

OSHA-required recordkeeping, per general industry standards 29 CFR 1910

These are general guidelines to help you determine where you must keep training records, maintenance records and written programs. Some standards do not specifically say you must maintain records, but they may imply and/or recommend you do. There may be other standards specifically required by certain industries that this list does not cover.

Standard	Subject	Is a written program needed?	Are training records needed?	Are maintenance records needed?
1904	Occupational injuries and illnesses	No	No	Yes
1910.28	Scaffolds	No	Recommended	Yes
1910.38	Emergency action	Yes	Recommended	No
1910.66	Powered platforms	No	Yes	Yes
1910.68	Manlifts	No	Recommended	Yes
1910.95	Hearing conservation	Recommended	Recommended	Yes
1910.96	Radiation	Yes	Recommended	Yes
1910.109	Explosives and blasting agents	Recommended	Yes	Yes
1910.119	Process safety	Yes	Yes	Yes
1910.120	Hazwoper	Yes	Yes	Yes
1910.132 1910.133 1910.135 1910.136	Personal protective equipment	Yes	Yes	Yes
1910.137 1910.138	Personal protective equipment	Yes	Yes	Yes
1910.134	Respirators	Yes	Yes	Yes
1910.146	Confined spaces	Yes	Yes	Yes
1910.147	Lockout/tagout	Yes	Yes	Yes
1910.151	Medical and first aid	No	Recommended	Yes
1910.156	Fire brigades	Yes	Yes	No
1910.157	Fire extinguishers	Recommended	Recommended	Yes
1910.160	Fixed extinguishing systems	No	No	Yes
1910.164	Fire detection systems	No	Under emergency action plan	Recommended
1910.165	Employee alarm systems	Yes	Recommended	Recommended
1910.177	Servicing wheel rims	Yes	Recommended	Recommended
1910.178	Powered industrial trucks	No	Recommended	Yes
1910.179	Cranes	No	Recommended	Yes
1910.180	Crawler locomotive and truck cranes	No	Recommended	Yes
1910.181	Derricks	No	Recommended	Yes
1910.184	Slings	No	Recommended	Yes
1910.217	Mechanical power presses	Yes	Recommended	Yes
1910.218	Forging machines	No	Recommended	Yes
1910.219	Mechanical power-transmission apparatus	No	No	Recommended
1910.253	Gas welding	No	Recommended	Recommended
1910.254	Arc welding	No	Recommended	Recommended

OSHA-required recordkeeping, per general industry standards 29 CFR 1910 continued

Standard	Subject	Is a written program needed?	Are training records needed?	Are maintenance records needed?
1910.255	Resistance welding	No	Recommended	Yes
1910.264	Laundry operations	No	Recommended	No
1910.266	Pulpwood logging	Recommended	Yes	No
1910.268	Telecommunications	No	Yes	Yes
1910.269	Electric power generation	Yes	Yes	Yes
1910.272	Grain handling facilities	Yes	Recommended	Yes
1910.331 1910.332 1910.333 1910.334 1910.335	Electrical safe work practices	Yes	Recommended	Recommended
1910.402- 1910.440	Diving operations	Yes	Yes	Yes
1910.1001	Asbestos	Yes	Yes	Yes
1910.1003- 1910.1016	Carcinogens	Yes	Yes	Yes
1910.1017	Vinyl chloride	Yes	Yes	Yes
1910.1018	Inorganic	Yes	Yes	Yes
1910.1020	Medical and exposure records	No	Recommended	Yes
1910.1025	Lead	Yes	Yes	Yes
1910.1027	Cadmium	Yes	Yes	Yes
1910.1028	Benzene	Yes	Yes	Yes
1910.1029	Coke ovens	Yes	Yes	Yes
1910.1030	Bloodborne pathogens	Yes	Yes	Yes
1910.1043	Cotton dust	Yes	Yes	Yes
1910.1044	1,2-dibromo-3-chloropropane	Yes	Yes	Yes
1910.1045	Acrylonitrile	Yes	Yes	Yes
1910.1047	Ethylene oxide	Yes	Yes	Yes
1910.1048	Formaldehyde	Yes	Yes	Yes
1910.1050	Methylene-dianiline	Yes	Yes	Yes
1910.1052	Methylene chloride	Yes	Yes	Yes
1910.1200	Hazard communication	Yes	Yes	No
1910.1450	Laboratories	Yes	Yes	Yes

OSHA-required recordkeeping, per construction standards 29 CFR 1926

These are general guidelines to help you determine where you must keep training records, maintenance records and written programs. Some standards do not specifically say you must maintain records, but they may imply and/or recommend you do. There may be other standards specifically required by certain industries that this list does not cover.

Note: There are general industry standards that apply to construction in addition to those below.

Standard	Subject	Is a written program needed?	Are training records needed?	Are maintenance records needed?
1926.20	General safety and health provisions	Yes	Recommended	Recommended
1926.21	Safety training and education	Recommended	Recommended	No
1926.24	Fire protection and prevention	Yes	Recommended	No
1926.29	Acceptable certifications	Recommended	No	Yes
1926.33	Exposure and medical records	Yes	Recommended	Yes
1926.35	Emergency action plan	Yes	Recommended	No
1926.50	First aid	Yes	Yes	No
1926.53	Radiation	Yes	Recommended	Yes
1926.54	Lasers	Recommended	Yes	Recommended
1926.59	Hazard communication	Yes	Recommended	Yes
1926.60	Methylene-dianiline	Yes	Yes	Yes
1926.62	Lead	Yes	Recommended	Yes
1926.64	Process safety management	Yes	Yes	Recommended
1926.65	Hazwoper	Yes	Yes	Yes
1926.103	Respirators	Yes	Yes	Yes
1926.150	Fire protection	Yes	Recommended	Yes
1926.156	Fixed extinguishing systems	Yes	Recommended	Yes
1926.158	Fire detection systems	No	Recommended	Yes
1926.159	Employee alarm systems	Recommended	Recommended	Yes
1926.251	Slings	No	No	Yes
1926.302	Powder actuated tools	No	Recommended	No
1926.350	Gas welding and cutting	No	Recommended	No
1926.351	Arc welding and cutting	No	Recommended	No
1926.404	Wiring design and protection	Yes	Recommended	Yes
1926.417	Lockout/tagging of circuits	Yes	Recommended	No
1926.502	Fall protection systems criteria and practices	Yes	No	Yes
1926.503	Fall protection training requirements	No	Yes	No
1926.550	Cranes and derricks	No	No	Yes
1926.552	Material hoists, personnel hoists and elevators	Yes	No	No
1926.556	Aerial lifts	No	Recommended	Recommended
1926.651	Excavations general requirements	Yes	No	Yes
1926.652	Requirements for protective systems	Yes	No	No
1926.800	Underground construction	No	Recommended	Yes

OSHA-required recordkeeping, per construction standards 29 CFR 1926 continued

Standard	Subject	Is a written program needed?	Are training records needed?	Are maintenance records needed?
1926.803	Compressed air	Yes	Yes	Yes
1926.850	Demolition	Yes	No	No
1926.900	Explosives	Yes	Recommended	Yes
1926.901	Blaster qualifications	No	Yes	No
1926.903	Underground transportation of explosives	No	No	Yes
1926.905	Loading of explosives or blasting agents	Yes	No	Yes
1926.955	Overhead lines	No	Recommended	No
1926.1060	Ladder training requirements	No	Recommended	No
1926.1076	Qualifications of dive teams	No	Recommended	No
1926.1080	Safe practices manual	Yes	No	No
1926.1081	Pre-dive procedure	Yes	No	Recommended
1926.1082	Procedures during dive	Yes	No	No
1926.1083	Dive records	Yes	No	No
1926.1090	Dive equipment records	No	No	Yes
1926.1091	Diving injury records	No	No	Yes
1926.1101	Asbestos	Yes	Yes	Yes
1926.1103- 1926.1116	Carcinogens	Yes	Recommended	Yes
1926.1117	Vinyl chloride	Yes	Yes	Yes
1926.1118	Inorganic arsenic	Yes	Yes	Yes
1926.1127	Cadmium	Yes	Yes	Yes
1926.1128	Benzene	Yes	Recommended	Yes
1926.1129	Coke ovens	Yes	Recommended	Yes
1926.1144	1, 2-dibromo-3-chloropropane	Yes	Yes	Yes
1926.1145	Acrylonitrile	Yes	Yes	Yes
1926.1147	Ethylene oxide	Yes	Yes	Yes
1926.1148	Formaldehyde	Yes	Yes	Yes

Resources

DSH would like to recognize and thank the following organizations for demonstrating their commitment to partner with us to improve safety and health throughout public employment in Ohio.

Ohio School Boards Association (OSBA)

8050 N. High St., Suite 100 Columbus, OH 43235 (614) 540-4000 www.osba-ohio.org

City of Cincinnati

801 Plum St. Cincinnati, OH 45202 (513) 352-3791 www.cincinnati-oh.gov

Ohio Public Employer Labor Relations Association

ohpelra.org

County Commissioners' Association of Ohio

37 W. Broad St., Suite 650 Columbus, OH 43215 (614) 221-5627 www.ccao.org

County Risk Sharing Authority (CORSA)

37 W. Broad St., Suite 650 Columbus, OH 43215 (614) 220-7993 www.corsa.org

Ohio Association of Professional Firefighters

1380 Dublin Road, Suite 104 Columbus, OH 43215 (614) 488-9920 www.oapff.com

Ohio Fire Chiefs Association

131 Dillmont Drive, #201 Columbus, OH 43235 www.ohiofirechiefs.com

Ohio Municipal League

175 S. Third St., Suite 510 Columbus, OH 43215 (614) 221-4349 www.omunileague.org

Ohio Federation of Teachers

1251 E. Broad St. Columbus, OH 43205 (614) 258-3240 oh.aft.org

State Employement Relations Board (SERB)

65 E. State St., Suite 1200 Columbus, OH 43215 (614) 644-8573 www.serb.state.oh.us

Fraternal Order of Police (FOP) of Ohio

222 E. Town St. Columbus, OH 43215 (614) 224-5700 www.fopohio.org

American Federation of Labor – Congress of Industrial Organizations (AFL-CIO)–Ohio

395 E. Broad St., Suite 300 Columbus, OH 43215 (614) 224-8271 www.ohaflcio.org

Ohio Civil Service Employees Association

390 Worthington Road, Suite A Westerville, OH 43082-8331 www.ocsea.org

Ohio Education Association

225 E. Broad St. Columbus, OH 43215 (614) 228-4526 www.ohea.org

Additional resources for public employees in Ohio

National Safety Council

Business and industry division, public employee section 1121 Spring Lake Drive Itasca, IL 60143 (630) 285-1121 www.nsc.org

Ohio Bureau of Workers' Compensation (BWC)

1-800-OHIOBWC ohiobwc.com

Ohio Department of Job and Family Services

30 E. Broad St. Columbus, OH 43215 (614) 466-6282 jfs.ohio.gov

Public Employees Roundtable

1301 K St. NW Washington, D.C. 20005 (202) 728-0418 www.excelgov.org

Public Risk Management Association

500 Montgomery St., Suite 750 Alexandria, VA 22314 (703) 528-7701 www.primacentral.org

Public Agency Risk Managers Association

P.O. Box 6810 San Jose, CA 95150 (888) 907-2762 www.parma.com