

CONSTRUCTION SAFETY AND HEALTH MANAGEMENT SYSTEM

(ACCIDENT PREVENTION PROGRAM)



- Written Sample
- Resources

INTRODUCTION

This document is a tool to give assistance in developing a written Safety and Health Management System (SHMS). A SHMS is also referred to as an Accident Prevention Program. A written accident prevention program is a required part of fulfilling the requirement in MIOSHA Construction Safety Standard, Part 1. General Rules, Rule 114 (1) to have an Accident Prevention Program.

This document includes some sample language, notes, and additional resources to help you prepare your written accident prevention program. Each company should tailor their own system and formulate safety procedures and rules applicable to their own work operations and work environments.

Failure to develop a written construction safety and health management system specific to your operation may result in a MIOSHA violation.

Website links are provided throughout this document to guide you to MIOSHA Standards and other resource documents.

Workplace injuries are preventable. A SHMS is your best defense against workplace injuries.

An effective SHMS has five primary elements:

- Management Commitment and Planning
- Employee Involvement
- Worksite Analysis
- Hazard Prevention and Control
- Safety and Health Training

This systematic approach integrates occupational safety and health objectives into the company's organizational structure.

The results of a system approach include:

- An effective system supports the organization's philosophy.
- Safety and health policies and goals are clearly communicated.
- Accountability for implementing the system is understood and accepted.
- Long-term solutions are implemented rather than one-time fixes.
- Evaluation of results over time promotes continual improvement.
- An effective system positively impacts the company's bottom line.

Be sure to assess your work operations and include safety and health information that fits your specific needs, types of hazards, and the size and complexity of your business.

MIOSHA Safety and Health Standards

A good way to begin the development of a SHMS is to determine which standards and rules apply to the work being performed in your organization. The chart below provides links to MIOSHA standards.

All standards can be found at www.michigan.gov/mioshastandards.

Standards	Description	Link
Construction Safety	Used for construction activities including new installations, upgrades and large scope repairs.	Construction Safety Standards <i>Or www.michigan.gov/mioshastandards and select "Construction."</i>
General Industry	Typically used for work activity in a manufacturing or other facility. Construction Safety standards may apply when work activities are related to "new" construction projects.	General Industry Standards <i>Or www.michigan.gov/mioshastandards and select "General Industry."</i>
Administrative	Applies to all establishments.	Administrative Rules <i>Or www.michigan.gov/mioshastandards and select "Administrative Rules."</i>
Construction Health	Health standards apply to all construction activities. Some of the more common include: Hazard Communication, Silica, Lead, Asbestos, and Respirators.	Construction Health <i>Or www.michigan.gov/mioshastandards and select "Construction."</i>

CONSTRUCTION SAFETY AND HEALTH MANAGEMENT SYSTEM

(ACCIDENT PREVENTION PROGRAM)

FOR

(Company Name)

(Address)

(Name of Owner/CEO)

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Note to Employer: Be sure to review your work operations and include safety information that is relevant to each operation. Not all safety and health standards are represented in the table of contents above.

MANAGEMENT COMMITMENT AND PLANNING

SAMPLE SAFETY AND HEALTH POLICY

(Company Name) believes that **no job or no task is more important than worker health and safety.**

If a job represents a potential safety or health threat, every effort will be made to plan a safe way to do the task.

Every procedure must be a safe procedure. Shortcuts in safe procedures by either foremen or workers will not be tolerated.

If a worker observes any unsafe condition, which may pose a potential threat to their health or safety, it is expected that employees will immediately correct the situation when feasible or inform management. Management has the responsibility to take adequate precautions, comply with MIOSHA standards, and assure the safety and health of employees.

If a job cannot be done safely it will not be done.

Management will provide visible ongoing commitment, resources, and leadership to assure the implementation of the SHMS. All employees will be provided equally high quality safety and health protection.

We acknowledge the importance of creating a positive safety culture through employee involvement and effective policies and procedures.

Signature of Owner/Chief Executive Officer/President

Note to employer: Effective safety programs utilize a SHMS that incorporates the following five elements:

1. Management commitment and planning,
2. Employee involvement,
3. Worksite analysis,
4. Hazard prevention and control,
5. Safety and health training.

To learn more about these five components, take a look at the [MIOSHA Safety and Health Toolbox](#).

Or go to: www.michigan.gov/miosha, select "A-Z Topic Index" and "Toolbox."

SAMPLE SAFETY AND HEALTH OBJECTIVES

(Company Name) plans to achieve worker safety and health through the following:

1. Designate a qualified safety person to coordinate the program.
2. Plan for safety before each job and each new task, using a written Job Safety Analysis (JSA).
3. Make regular job site safety inspections and conduct health monitoring.
4. Follow safety procedures and rules.
5. Provide on-going safety training.
6. Enforce safety rules and use appropriate discipline.

DESIGNATED SAFETY COORDINATOR

(Company Name) has designated (Name/Title) to coordinate, implement, and administer the safety and health system. Responsibilities include:

1. Understand potential job hazards and how to eliminate them.
2. Conduct or assist with JSA.
3. Assure compliance with MIOSHA construction safety and health standard requirements.
4. Conduct regular job site safety and health inspections.
5. Establish safety and health procedures.
6. Coordinate regular safety and health training.
7. Conduct or assist with Tool Box Talks or Five Minute Safety Talks.
8. Maintain documentation of training, inspections, injuries and illnesses, and other safety records.
9. Participate in accident investigations and implementation of corrective actions.
10. Involve employees in the implementation of the SHMS.
11. Create statistical reports that compare severity and frequency rates against prior records.

(List other company-specific assigned safety and health responsibilities.)

SUPERVISOR'S RESPONSIBILITY

Our supervisors' play an important part in creating and maintaining safe and healthful work practices, policies, and procedures. It is the supervisor's responsibility to identify potential hazards, identify methods to control or eliminate the hazards, ensure employees engage in safe and healthful work practices, and ensure employees receive safety and health training to do their work. Safety and health performance will be part of our supervisors' evaluations.

(List other company-specific assigned safety and health supervisory responsibilities.)

SAFETY AND HEALTH COMMITTEE

Our management will take an active role on the safety and health committee. At least annually the safety and health committee will develop written safety and health goals and track monthly progress. These goals will be communicated to all employees. Our committee will be comprised of management and hourly employees. Members will be (Elected/Appointed/Volunteer) and will serve on the committee for (Length of Time).

RESPONDING TO SAFETY AND HEALTH ISSUES

Our management will take prompt consistent action when responding to safety and health issues. They will demonstrate our management commitment to addressing safety and health concerns and encourage employee participation. Management will respond to employees' reports of hazards or potential hazards and (Describe your company's system for employees to report hazards).

Immediate supervisors will review, investigate, and take any necessary and appropriate action on all employee reports of hazards or potential hazards. The employee reporting the hazard or potential hazard will be notified of the outcome. Reporting of hazards or potential hazards will be without fear of reprimand.

EMPLOYEE INVOLVEMENT

SAFETY AND HEALTH COMMITTEE

The purpose of our safety and health committee is to participate in the implementation of the safety and health system at (Company Name).

Our committee will be comprised of management and employee representatives. Our committee will meet (Monthly/Quarterly).

The committee will:

- Have defined goals and objectives.
- Address safety and health issues.
- Record and post minutes of the meetings.
- Involve employees in problem solving.
- Document action taken and post on the bulletin boards for all employees to read and/or comment.
- Have a formal agenda.

Committee members are: (List members)

SAFETY INSPECTIONS

Our employees will participate in regular safety and health inspections (Daily/Weekly/Monthly/Quarterly) to help identify potentially hazardous conditions and unsafe actions and initiate corrections. Findings will be presented to (Name/Title/Safety and Health Committee) for review. Corrective action will be implemented under the direction of (Name/Title) in a timely manner.

SUGGESTION SYSTEM

Our employees are encouraged to make safety and health suggestions to help improve a process, prevent an accident, or to make any improvement in the safety and health system. The suggestion system will be implemented by (Name/Title) who will be responsible for determining priority and the proper means of implementation. Safety suggestions will be shared with the safety and health committee for input. Suggestion forms can be placed in suggestion boxes at (Location) or given directly to (Name/Title).

EMPLOYEE PARTICIPATION

Our employees will be given an opportunity to provide input regarding recommendations on safety and health products, procedures, and training as it pertains to daily work operations. For example, employees may be given some responsibility to test out products or conduct research to substantiate recommendations. Employee input may be provided through the suggestion system, report of hazard, or through actions the safety and health committee initiates. Employees may participate in a variety of ways such as a trainer, inspector, or problem solver.

WORKSITE ANALYSIS

We will conduct a worksite analysis, through systematic actions that provide information as needed to recognize and understand the hazards and potential hazards of our workplace. Listed below are types of worksite analysis actions that can assist with making an inventory of potential hazards in our workplace:

1. JSA.
2. Comprehensive hazard surveys (insurance inspections, MIOSHA On-site, etc.).
3. Hazard analysis of changes in the workplace (new equipment, new processes).
4. Regular site safety and health inspections (employee and management).
5. Employee report of hazards or potential hazards.
6. Accident and incident investigations with corrective actions and follow-up.
7. Injury and illness trend analysis.
8. PPE assessment.
9. Ergonomic analysis.
10. Specific identification of confined spaces.
11. Identification of energy sources for specific machines.
12. Copies of written inspections and surveys by: fire department, in-house as required by safety and health standards (e.g., overhead crane inspections, powered industrial truck daily inspection, etc.).

NEW EQUIPMENT, PROCESSES, AND FACILITY HAZARD ANALYSIS

(Name/Title) will analyze new facilities, equipment, processes, and materials for hazards and potential hazards. Findings will be documented and plans developed to minimize or design out the hazards.

JOB SAFETY ANALYSIS

(Company Name) will utilize JSA to determine potential hazards and identify methods to reduce exposure to the hazards.

JSA is a method of planning for safety and health. There are three parts to the JSA.

1. The first component of a JSA is breaking down a job or task into the specific steps it takes to complete the job. Although this can be done in small detail, typically only the major steps are listed. This often results in five to ten steps. The steps are listed in chronological order, listing the first thing that must be done, then what comes next, and so on.
2. The second component of a JSA is to list all the hazards that are involved in each step. There may be many hazards that get listed next to some steps and may not be any associated with some steps.
3. The third step is to write down how each hazard will be eliminated or controlled. In other words, describe what needs to be done in order to perform that task safely.

Sample JSA Form

Job Title:	Page: ___ of	JSA No.	Date:	___ New ___ Revised
Equipment:	Supervisor:	Analysis by:		
Department:	Approved by:			
Required Personal Protective Equipment (PPE):				
Job Steps	Potential Hazards	Recommended Safe Job Procedures		
Trainee(s) Name:			Training Date:	
Trainer(s) Name:			Trainer(s) Signature:	
Four-Step Instruction Completed?	Prepare the Worker.....	Trainer(s) Initials		
	Present the Operation.....	Trainer(s) Initials		
	Try Out Performance.....	Trainer(s) Initials		
	Follow Up.....	Trainer(s) Initials		
Comments:				

Note to employer: JSA is often called different things. Other names for it include: job hazard analysis, job task analysis, task hazard analysis, and safety task analysis. Job hazard analysis takes place prior to starting new work activities.

A sample form and more detailed instruction is included in the MIOSHA [Job Safety Analysis booklet \(SP #32\)](#).

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "SP #32."

EMPLOYEE REPORT OF HAZARDS

Our employees play a key role in identifying, controlling, and reporting hazards that may occur or already exist in the workplace. Employee reports of potential hazards can be an effective tool to trigger a closer look at a piece of equipment, operation, or how work is being performed. Reports of potential hazards can also provide suggestions to eliminate a hazard.

ACCIDENT/INCIDENT INVESTIGATION

We will conduct an investigation for all accidents/incidents and near misses. Our primary goal of conducting an investigation is to determine the “root cause” to prevent the risk of a future occurrence. Investigation reports can help determine injury and illness trends over time, so that patterns with common causes can be identified and prevented. Investigations are not intended to place blame.

Accidents and “near-miss” incidents will be investigated by (Name/Title). The reports will be reviewed by (Name/Safety Committee) within (Days/Hours) of an accident/incident.

HAZARD PREVENTION AND CONTROL

Our management will develop systems to prevent and control hazards. These include: the establishment of controls through engineering, work practice, PPE, and/or administrative actions; systems to track hazard correction; preventive maintenance systems; emergency preparation; and medical program.

Our written system will be implemented to assure guards, housekeeping, and PPE are provided and being used.

A written plan of action for the correction of hazards found in the workplace will be implemented by (Name/Title). Actions will be communicated to all employees.

A maintenance schedule for all vehicles and equipment will be established by (Name/Title). Maintenance logs will be kept to document work performed and repairs scheduled or ordered.

Required written programs such as: lockout/tagout, respiratory protection, right to know, confined space, asbestos, benzene, lead, and fork lift permits will be developed.

Through a team effort all employees at (Company Name) will make "safety checks" a part of routine work practices.

JOB SITE INSPECTIONS

(Company Name) will conduct daily job site inspections. Hazards will be documented, reviewed, and corrections will be made in a timely manner. More detailed, written inspections will be conducted by (Name/Title) on a (Weekly/Monthly) basis. The Safety Coordinator or other designated safety person will tour each job site and observe potential safety/health hazards, and develop a plan for safeguarding this company's workers which may include the following:

1. Removing the hazard.
2. Guarding against the hazard as required by MIOSHA.
3. Providing PPE and enforcing its use.
4. Training workers in safe work practices.
5. Coordinating protection of workers through other contractors.

A record of all safety inspections and correctional steps will be kept.

Note to employer: Some sample checklists for inspections can be found at this link:

[Hazard Prevention and Control](#)

Or go to: www.michigan.gov/miosha, select "A-Z Topic Index," "Toolbox," and "Module 3 - Hazard Prevention and Control."

During your inspections, some of the important things to look for are the Top 10 Health, General Industry, and Construction serious violations that MIOSHA safety officers find.

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "SP #10."

ACCIDENT INVESTIGATION

All accidents resulting in injury or property damage will be investigated. The purpose of the investigation is NOT to find fault, but to find the cause of the accident so similar incidents can be prevented in the future.

1. All accidents, no matter how minor must be reported to the Foreman immediately.
2. Foremen must report all accidents to the Safety Coordinator as soon as possible.
3. Foremen must complete an initial written accident investigation the day of the accident, if possible.
4. All workers involved in the accident or who witnessed the accident must complete a written statement describing the incident.
5. The Safety Coordinator will complete a thorough accident investigation to determine root causes and corrective actions.
6. Near misses (situations where an accident almost happened) should be reported. Corrective action must be taken to prevent the same situation from occurring again with the potential for serious injury. Foremen should make a note of near misses and the corrective actions taken and report them to the Safety Coordinator, so that the same corrections may be made on all the company's job sites.

PERSONAL PROTECTIVE EQUIPMENT

1. Hard hats will be worn on job sites at all times.
2. Eye protection will be worn when there are potentials of hazards from flying objects or particles, chemicals, arcing, glare, or dust.
3. Leather work boots shall be worn to protect from falling objects, chemicals, or stepping on sharp objects. Safety toe footwear may be necessary in some instances. Athletic or canvas-type shoes shall not be worn.
4. Protective gloves or clothing shall be worn when required to protect against a hazard.
5. Harnesses and lanyards shall be utilized for fall protection as required.

Note to employer: A good guide to PPE is available from MIOSHA. It is written for general industry, but works very well for construction also. It is found at this link:

[Personal Protective Equipment](#)

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "SP #16."

POLICIES, PROCEDURES, SAFETY AND HEALTH RULES

Our management is responsible for implementing major decisions, policies and safety and health procedures. Specific safety and health procedures that are required by MIOSHA will be put in writing such as: lockout, right to know, fall protection, confined space, respiratory program, etc. A copy of our written safety program will be available on every jobsite, either in the jobsite trailer, the gang box, or with the foremen. The required MIOSHA posters will be posted at (Location).

(Company Name) will inform and enforce the following safety rules:

All of our safety rules must be obeyed. Failure to do so will result in strict disciplinary action.

1. Wear appropriate clothing and use sun block to prevent sunburn.
2. Watch where you are walking. Do not run. Keep your mind on your work at all times.
3. The use of illegal drugs or alcohol or being under the influence during working hours shall be cause for termination. Inform your supervisor if taking strong prescription drugs that warn against driving or using machinery.
4. Do not distract the attention of fellow workers or engage in horseplay. Do not engage in any act which would endanger another employee.
5. Keep your working area free from rubbish and debris. A clean job is the start of a safe job.
6. Do not use a compressor to blow dust or dirt from your clothes, hair, or hands.
7. Report any fear of walking at heights to your supervisor.
8. Know where fire extinguishers are located and how to use them.
9. Lift correctly - with legs, not the back. If the load is too heavy GET HELP. Do stretching exercises prior to work activities. Approximately twenty percent of all construction related injuries result from lifting materials.
10. Keep back at least 10' from all power lines, further if high voltage.
11. Nobody but the operator shall be allowed to ride on equipment unless the equipment is designed to carry a passenger.
12. Do not use power tools and equipment until you have been properly instructed in the safe work methods and become authorized to use them.
13. Do not remove, displace, damage, or destroy any safety device or safeguard on equipment or machinery.
14. Barricade danger areas. Guard rails or perimeter cables may be required. Do not enter an area which has been barricaded.

15. If you must work around power shovels, trucks, rough-terrain fork-lifts, dozers, or other heavy equipment, make sure operators can always see you.
 - Never walk within the swing radius of equipment counterweights.
 - Never stand next to trucks when load straps are being released.
 - Barricades are required for cranes.
 - High visibility vests may be used to increase your visibility.
16. Never oil, lubricate, or fuel equipment while it is running or in motion.
17. Before servicing, repairing, or adjusting any powered tool or piece of equipment, disconnect it, lock out the source of power, and tag it out.
18. Excavations over five feet deep must be shored or sloped as required. Keep out of trenches or cuts that are not properly shored or sloped. Excavated material or other debris shall not be stored nearer than two feet from the edge of the excavation. Excavations less than 5 feet will require cave in protection where conditions indicate possible side failure.
19. Practice the following safety procedures when using ladders:
 - Use the "four to one" rule when using a ladder. One foot of base for every four feet of height.
 - Portable ladders in use shall be equipped with safety feet unless the ladders are tied, blocked or otherwise secured. Step ladders shall not be used as a straight ladder.
 - Ladders must extend three feet above landing on roof for proper use.
 - Defective ladders must be properly tagged and removed from service.
 - Keep ladder bases free of debris, hoses, wires, materials, etc.
20. Build scaffolds according to manufacturers' recommendations and MIOSHA Construction Safety Standard, Part 12, Scaffolding.
 - Scaffolds over 10' must have guardrails on all open sides.
 - Scaffold planks shall be properly lapped, cleated or otherwise secured to prevent shifting.
21. Use ground fault circuit interrupters at all times with any temporary power supply. Use only extension cords of the three-prong type.
22. Fall protection is required at 6 feet or higher. 100% tie-off means the harness and lanyard are always connected to anchorage.
23. Never throw anything "overboard." Someone passing below may be seriously injured.
24. Open fires are prohibited.
25. Know what emergency procedures have been established for your job site. (Location of emergency phone, first aid kit, stretcher location, fire extinguisher locations, evacuation plan, etc.)

26. Never enter a manhole, well, shaft, tunnel or other confined space which could possibly have a hazardous atmosphere because of lack of oxygen, or presence of toxic or flammable gas, or has a possibility of engulfment by solids or liquids.
- Only a qualified person will test the confined area with an appropriate detector before entry.
 - Wear the necessary PPE.
 - Provide ventilation by blowing fresh air into the confined space.
 - An attendant (hole-watch) may be required to be stationed at the entrance.

SAFETY DISCIPLINE

(Company Name) has implemented the following four step disciplinary system when safety rules are not followed or other unsafe actions endanger workers.

First violation: Oral warning; notation for personnel file.

Second violation: Written warning; copy for file or Personnel Office.

Third violation: Written warning; one day suspension without pay.

Fourth violation: Written warning and one-week suspension, or termination if warranted.

Zero-tolerance Violations: Some safety violations are of such serious nature that there will be no warnings and termination may result. Examples include:

- Entering hazardous confined spaces without following proper procedures,
- Failing to use fall protection equipment,
- Entering unsafe excavations.

Both the employee and the supervisor allowing these unsafe acts may be terminated.

A record will be maintained of all disciplinary actions.

EMERGENCY PROCEDURES

In case of an emergency on site the following procedures will be instituted at each site:

1. Method of communication will be determined at each site: telephone, radio, etc.
2. Post the following emergency telephone numbers:
 - Police
 - Fire
 - Medical Response Team
3. Post the job site address near the communication station.
4. Post names of first aid responders on site.
5. Designate a person to direct emergency crews to site of emergency.
6. Instruct each employee of known harmful plants, reptiles, animals, insects, or other environmental hazards present, including:
 - The potential hazards.
 - How to avoid injury.
 - Applicable first aid procedures to be used in the event of injury

Note to employer: A [Sample Bloodborne Infectious Disease Exposure Control Plan](#) is available from MIOSHA.

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "CET #5230."

LOCKOUT / TAGOUT

Lockout / Tagout assures that employees are protected from unintended machine motion or unintended release of energy which could cause injury. This includes electricity, water, steam, hydraulic, gravity, and many other sources of stored energy.

All sources of energy must be shut off, de-energized at the source, and locked-out prior to any employee beginning work around or on the potential hazard.

Note to employer: Review the MIOSHA [Lockout / Tagout Compliance Guide](#) for assistance in writing your program. The document was written for general industry, however some of the information may be helpful. Appendix A of that guide is a sample Lockout / Tagout program that you may copy and modify for your program.

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "SP# 27."

CONFINED SPACE ENTRY

No employee shall enter confined spaces without authorization. A confined space is defined as the following:

1. A space that is NOT DESIGNED FOR CONTINUOUS employee OCCUPANCY, and
2. Is large enough and so configured that a person can bodily enter into and perform assigned work, and
3. Has LIMITED or RESTRICTED means for ENTRY or EXIT.

Confined spaces that may have a HAZARDOUS ATMOSPHERE require special precautions. Hazardous atmospheres are those that may expose employees to the risk of death, incapacitation, impairment of ability to self rescue caused by:

- Flammable gas.
- Airborne combustible dust.
- Atmospheric oxygen concentration below 19.5 or above 23.5%.
- A toxic atmosphere or substance.
- Danger of engulfment.

Note to employer: A sample written program is available from MIOSHA. The document is titled [Guidelines for a Permit Required Confined Space Entry Program](#).

Or go to: www.michigan.gov/mioshpublications, select "Sample Plans and Special Programs" and "CET #5330."

WRITTEN HAZARD COMMUNICATION PROGRAM

Hazard communication means ensuring that all workers know about the chemicals that they work with and work around. Often called “Right to Know,” the hazard communication program involves the following elements.

1. Written hazard communication program.
2. Training on the chemicals this company uses.
3. Labeling: using properly labeled containers.
4. Safety Data Sheets (SDS): SDS (formerly known as Material Safety Data Sheets or MSDS) must be readily available onsite. Workers must know where to find SDS and be able to read and properly utilize an SDS.
5. Posting signs to inform employees of the location of SDS and when new chemicals are brought on the job site.
6. Informing other contractors: If we use chemicals around other contractors, it is our responsibility to inform other contractors of the hazards involved. We will make every effort to keep other contractors safe from the chemicals we use. Typically, the general contractor onsite will need to coordinate all chemical use of all contractors to maintain a safe workplace.

Note to employer: Your written Hazard Communication program should outline the specific details of the elements listed above. MIOSHA has a [Sample Hazard Communication Plan](#).

Or go to: www.michigan.gov/mioshpublications, select “Special Programs” and “CET #5530.”

FALL PROTECTION PROGRAM

1. Fall protection is required whenever working at six feet or above.
2. Fall protection will be provided by one or more of the following:
 - Guardrails
 - Hole covers
 - Safety nets
 - Personal fall arrest system (harness and lanyard)

Note to employer: To assist you in completing your fall protection program, there are links provided below to several fall protection documents available from MIOSHA:

[Highlights of the Fall Protection Standard](#)

[Construction Industry Threshold Heights Requiring Fall Prevention/Protection Equipment](#)

[Falls - Unprotected Sides, Wall Openings, and Floor Holes](#)

[Fall Protection – General Interpretations \(COM 04-2\)](#)

Or go to: www.michigan.gov/miosha, select "A-Z Topic Index" and "Fall Protection."

ELECTRICAL SAFETY

Electrical safety involves two primary issues:

- Powerlines
- Temporary and permanent electrical wiring and equipment

To avoid electrical incidents, several basic safety rules must be followed:

1. Stay at least 10 feet back from powerlines, in ALL directions. Stay further back if voltages are greater than 50,000 volts.
2. Do not store materials under powerlines.
3. Mark powerlines on the job site with warning signs below.
4. Use ground fault circuit interrupters (GFCI) whenever plugging into temporary power or using an extension cord.
5. Extension cords and trailing cords with missing ground prongs must be removed from service.
6. Extension cords and trailing cords with cuts must be removed from service.
7. Do not operate wet power tools.
8. Keep extension cords from being damaged in doorways or being run over.
9. Keep extension cords out of wet areas.
10. Never wire anything yourself or attempt to make electrical repairs. Leave that for an electrician.
11. Assume all wires and electrical boxes are live, unless you are certain they are not.
12. Do not store any materials within 3 feet of electrical boxes.

Note to employer: MIOSHA fact sheet regarding powerline safety:

[Electrical Safety - Power Line Clearances](#)

Or go to www.michigan.gov/mioshapublications and select "MIOSHA Fact Sheets."

EXCAVATION SAFETY

Pre-job planning is vital to accident-free excavations and trenching; safety cannot be improvised as work progresses.

The following concerns must be addressed by a qualified person.

1. Evaluate soil conditions and select and construct appropriate protective systems in accordance with MIOSHA Part 9. Excavation, Trenching and Shoring.
2. If the trench is 5' or deeper, you must use one of the following.
 - Sloping of trench sides
 - Benching of trench sides
 - Trench boxes
 - Shoring
3. If the trench is less than 5' but is hazardous due to soil or the nature of the trench, then you must use protective systems.
4. Appropriate protective systems to prevent a cave-in may include trench boxes, shields, benching and/or appropriate sloping of trench sides.
5. Inspect the site daily at the start of each shift, following a rainstorm, or after any other hazard-increasing event.
6. Contact MISS DIG to locate underground lines at least 3 days prior to excavating.
7. Plan for traffic control when necessary. Refer to the Michigan Manual on Uniform Traffic Control (MMUTC) Part 6 (available from the Michigan Department of Transportation) for traffic control.
8. Determine proximity to structures that could affect choice of protective systems. For example, ensure roads, sidewalks, or buildings are not too close to allow the use of a trenchbox or adequate sloping.
9. Test for low oxygen, and hazardous gases and vapors, especially when gasoline engine-driven equipment is running, or the dirt has been contaminated by leaking lines or storage tanks. Fuel-powered equipment produces carbon monoxide in the exhaust and must not be used without adequate ventilation. Provide appropriate respiratory protection when necessary.
10. Provide safe access into and out of the excavation. If the excavation is 4' or greater, ensure a ladder is within 25' of workers in the excavation.
11. Provide appropriate protections if water accumulation is a problem. Water flow and accumulation must be inspected and must be controlled.
12. Keep excavations open the minimum amount of time needed to complete operations.

Note to employer: MIOSHA documents to assist you with compliance:

[MIOSHA Fact Sheet: Trenching and Excavation – Protective Systems](#)

Or go to www.michigan.gov/mioshapublications and select “MIOSHA Fact Sheets.”

[Excavation Training by the Numbers](#)

Or go to www.michigan.gov/mioshapublications and select “MIOSHA Fact Sheets.”

[Part 9: Excavation, Trenching, and Shoring](#)

Or go to www.michigan.gov/mioshastandards and select “Construction.”

SAFETY AND HEALTH TRAINING

(Company Name) will provide training to assure the requirements of MIOSHA standards are met and continuously evaluate employee training needs to keep workers safe and healthy on the job.

1. New Employee Orientation: New employees will receive training on the company safety and health management system, safe work practices and expectations, and specific safety and health training for the tasks that they will perform.
2. After inspecting a job site, (Name/Title) will identify and evaluate all potential hazards for potential of serious injuries and probability of an accident. Actions will be taken to minimize the hazards and protect the workers.
3. The Safety Coordinator or other designated site person will appraise the skill and knowledge level of exposed workers, and provide any needed training.
4. Where safety and health training is needed, appropriate training will be provided.
 - Hazards will be identified.
 - Necessary precautions will be explained.
 - Training length and level of detail will be determined by the severity of the hazards and the requirements of MIOSHA.
5. Records will be maintained for all training sessions with descriptions of topics covered and names of workers trained.
6. Toolbox Talks: Toolbox talks will be conducted regularly (weekly/daily). Topics covered will include:
 - The safe work practices necessary for that day's work.
 - Any safety concerns workers may have.
 - Brief refresher training on relevant safety topics (topics to be provided by the Safety Coordinator).

SAFETY AND HEALTH WORK OBSERVATIONS

Safety and health work observations will be performed periodically by supervisors or designated observers.

Safety and health work observations ensure: 1) an employee has the knowledge to perform the work as trained, and 2) is actually performing their work task safely. Specific observations or audits are especially critical for lockout/tagout, confined space, or where the risk of exposure is high. Results will be documented and follow-up training will be provided as needed. This process helps assure safety and health training is effective.

Note to Employer: A listing of MIOSHA required training related to construction safety standards can be found at this link:

[Construction Safety Standards](#)

Or go to www.michigan.gov/miosha, select "Standards and Legislation" and "Construction."

ADDITIONAL RESOURCES TO BUILD A SAFETY AND HEALTH MANAGEMENT SYSTEM

The following is a list of other related documents. Because all businesses differ in many aspects, each company should tailor their own system and formulate safety and health procedures and rules applicable to their own conditions and/or work environments.

The following items can be used separately or combined to help you develop and implement a SHMS.

_____ [SP #5 Sample Respiratory Protection Program](#) (Replaced by USDOL OSHA Sample *Respiratory Protection Program*)

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "Respiratory Protection."

This compliance guide can help you design your respirator program.

_____ [SP #2 Safety and Health Management System Guidelines](#)

Or go to: www.michigan.gov/mioshapublications, select "Sample Plans and Special Programs" and "SP #2."

Through the MIOSHA Training Institute (MTI), there are numerous low-cost training seminars throughout the state to help you learn more about MIOSHA standards and various elements of a SHMS. Visit the MIOSHA website to determine which classes would be beneficial to you. Other support services provided by MIOSHA include the publication library, fact sheets, standard interpretations, free DVD loan library, and consultation services.

MIOSHA CET consultants can provide assistance at no charge to help you evaluate and build your SHMS.

**www.michigan.gov/miosha
(517) 284-7720**

Safety Pays!

For every \$1 invested in workplace safety and health ... employers see a \$4 to \$6 return.

Bottom Line Benefits

- 1 Reduced absenteeism
- 2 Lower turnover rates
- 3 Higher productivity
- 4 Greater efficiency
- 5 Increased quality
- 6 Decreased scrap/waste
- 7 Increased employee morale
- 8 Positive brand image
- 9 Decreased health care costs
- 10 Decreased workers' compensation costs

Michigan Occupational Safety and Health Administration
Consultation Education and Training Division
530 W Allegan, P.O. Box 30643
Lansing, Michigan 48909-8143

For further information or to request consultation education and training services
call (517) 284-7720
or

visit our website at www.michigan.gov/miosha



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