



# **Risk Control Safety Manual 2021**

# Table of Contents

Introduction .....	1
Safety Committee.....	2
Employee & Volunteer Safety.....	5
Self - Inspection .....	16
Security .....	27
Fleet Safety .....	34
School Transportation .....	41
Playground Safety .....	51
Pre-Schools.....	59
Science Lab Safety .....	67
Industrial Technology/VoAg .....	81
Bleacher Safety.....	90
Weight Rooms .....	95
AED's .....	98
Bloodborne Pathogens .....	99
Lock Out/Tag Out .....	105
PPE Self-Assessment.....	112
Hazard Communication / Global Harmonization.....	117
Fall Protection .....	123
Ladder Safety .....	128
Forklift Operations .....	133



## **Safety Best Practices**

### **Introduction**

MUSIC and all member districts feel that the safety of all employees, volunteers, students, and visitors is a critical priority. Good safety and risk management practices must be included in all schools. Therefore, MUSIC and Gallagher Risk Management Services have developed a set of best practices for achieving and maintaining a safe and healthy workplace.

This manual should be used as a guideline to assist in establishing a safe environment. It provides important guidelines to help your school reduce the possibility of an accident. The safety of staff, students, and visitors is ultimately each member's responsibility. However, these guidelines will assist in achieving this goal.

MUSIC strongly encourages each district to carefully review the items in this manual and use and adapt them as needed to create a safe and healthy environment.



## **Safety Best Practices**

### **Safety Committee**

#### **PURPOSE**

The purpose of a safety committee is to bring staff and administrators together to achieve and maintain a safe and healthful workplace. It is easy to start a safety committee, but developing an effective one – one that achieves and maintains a safe facility – requires employees and administrators and volunteers who are committed to achieving that goal. The information below is designed to assist in starting/re-starting a safety committee. It explains what needs to be done to make such a committee an effective one.

#### **STARTING A SAFETY COMMITTEE**

Forming a Safety Committee is not difficult. However, an effective committee requires the following:

##### ***Administration Commitment***

The committee will not survive without administrative support. The administration must demonstrate support by encouraging employees to get involved in achieving a safe and healthful workplace and by acting on the committee's recommendations.

Administrative members demonstrate commitment by attending committee meetings, following through on their assigned tasks, and encouraging employees to get involved in identifying hazards.

##### ***Accountability***

Committee members should understand that the committee expects them to contribute. Each representative shares responsibility for accomplishing safety committee goals which benefit everyone who works for the school.

The safety committee is also responsible for monitoring how the administration holds employees accountable for working safely and for recommending ways to strengthen accountability.

##### ***Employee/Volunteer Involvement***

To become effective, a safety committee needs help from everyone who works for the district. The safety committee must have a method for employees to report hazards and to offer safety suggestions. Examples of this method may include safety suggestion boxes or a district/college email address for reporting concerns/suggestions. Ways the safety committee can get employees involved include:

- Making sure employees know that a safety committee exists. Explain the purpose of the committee, describe its role in the facility's safety and health program, and explain the administration's commitment to the committee. Employees may be informed of the committee's efforts in a memo or a newsletter, by email, or – better yet – meeting with them to promote the committee and to answer questions. Encouraging employees to report hazards and unsafe work practices to a safety committee representative.

- Acting on employee suggestions and recognize their contributions to a safe workplace.
- Promoting the committee's activities and accomplishments.

### ***Hazard Identification***

The safety committee plays a vital role in keeping the workplace hazard-free.

- Ensure that committee members know how to recognize hazards and understand basic principles of controlling them.
- Focus on identifying hazards and unsafe work practices that are likely to cause serious injuries.
- Conduct thorough workplace inspections at least quarterly.
- Document hazards during quarterly inspections and discuss how to control them at regular safety committee meetings.
- Include both administrators and employees on the inspection team.

### ***Accident Investigation***

The committee must establish procedures for investigating facility accidents, illness, and deaths. The committee does not need to conduct or participate in accident investigations. However, the committee should ensure that the administration does so. The committee should also carefully review accident reports to help the administration identify accident causes and determine how to control them.

### ***Recordkeeping/Safety File***

Recordkeeping is an essential activity of the committee. Accurate, well-organized records document the committee's accomplishments and inform the committee what it needs to do to improve.

## **MEMBERSHIP**

The nature of operations determines membership on the safety committee. At a minimum, a member of the administrative team and key supervisors should be on the committee as well as employee representatives. Note - You are welcome to add a member of the Board of Education, volunteers and special advisors—such as an insurance professional, a firefighter, or a police officer.

## **MEETINGS**

### ***Each representative must participate.***

Make sure representatives understand that they will be committing to attending regularly scheduled meetings and participating in committee activities.

Setting a regular time, date, and place for meetings – for example, 10 am – noon on the first Tuesday of each month – makes it easier for everyone to remember.

***Establish ground rules.***

Ground rules keep meetings orderly and efficient. All representatives should understand the ground rules, and the chairperson should enforce them. Ground rules should include:

- Keeping the discussion focused on agenda topics,
- Listening to others and let them finish before responding,
- Cooperating to achieve practical solutions,
- Ending the meeting on time.

***Follow a written agenda.***

The agenda outlines the meeting's discussion topics. The chairperson should understand the agenda topics and keep the discussion focused on them. Send copies of the agenda to representatives a few days before the meeting so they can review it.

***Start the meeting on time.***

Make sure the meeting room is ready. Before getting down to business, start the meeting on the right track by doing the following:

- Distribute the agenda. Make sure everyone has a copy of the agenda and any other handouts.
- Review the ground rules. The ground rules may not need to be reviewed at every meeting, but consider doing so for the benefit of guests and new representatives.
- Make introductions and welcome new members and guests. No one likes to feel left out at a meeting.
- Review the minutes from the last meeting and ask if there are any additions or corrections. Update the minutes to reflect the changes.
- Review the agenda topics. Allow the representatives and guests the opportunity to suggest changes or to add discussion topics to the agenda.



## **Safety Best Practices**

### **Employee & Volunteer Safety**

#### **SAFETY TRAINING**

Employee and volunteer safety training and orientation is a key element of a safety and risk management program. Safety training provides the foundation for safe work habits. All employees and volunteers should receive safety training at hire, when assigned new job duties and periodically after that.

The following guidelines should be considered to assist with employee safety training and orientation:

- All employees should receive safety instructions at the time of hire.
- All employees should receive safety instructions when job duties change.
- All employees should receive safety instructions after an accident or incident occurs.
- All employees should receive safety instructions on at least an annual basis.

Safety training can be provided in a variety of methods.

- The training can be presented in a group format.
- The training can be one-on-one.
- The training can be computer-based.

Safety training programs should always be documented.

#### **SAFETY ORIENTATION**

Safety orientation is also an important element of an effective safety program. A sample safety orientation checklist is provided on the following page.



## SAFETY ORIENTATION CHECKLIST

All supervisors should use the following checklist. The worksheet provides a guideline to ensure that all new employees are properly instructed in key safety and risk management issues. Once completed, the checklist should be signed by the supervisor and employee and maintained in the employee's file.

Employee's Name:
Job Position:
Hire Date:

Orientation Item	Key Topics Discussed	Date Completed
Discuss General Safety Rules		
Discuss Job Specific Safety Rules		
Proper Job Conduct		
Procedure for Reporting Unsafe Conditions		
Procedures to Report Injuries		
Procedures for Reporting Safety Suggestions		
Discuss Emergency Procedures		
Review Housekeeping Standards		
Review Lifting Techniques		
Review Chemical Safety		
Review Electrical Safety		
Review Personal Protective Equipment		
Review Fire Safety		
Review Ladder Safety		

I have reviewed the above topics in the safety orientation checklist and feel that I can perform my job duties faithfully.

Employee Signature:	Date:
---------------------	-------

I have instructed this employee on the above topics and feel he/she can reasonably be expected to perform his/her duties safely.

Supervisor Signature:	Date:
-----------------------	-------





## **Volunteer and Chaperone Guidelines**

### ***Student Supervision and Interaction***

The following are some guidelines to consider when utilizing volunteers to supervise or chaperone students.

1. All Volunteers/Chaperones should be trained in “Sexual Misconduct Prevention: Staff-to-Student.” (This is suggested when the person(s) volunteer on a “regular” basis.)
2. All Volunteers/Chaperones should avoid one-on-one interaction with students.
3. All Volunteers/Chaperones should be given a written copy of the rules and behavior expectations associated with the event.
4. Volunteers/Chaperones should not physically restrain students.
5. All Volunteers/Chaperones should be informed who is the lead supervisor of the event.
6. All Volunteers/Chaperones should dress in approved and appropriate attire.
7. Volunteers/Chaperones should not serve food to the students unless approved by the lead supervisor.
8. Volunteers/Chaperones should not give any medication to students unless there is specific, written consent from guardians. All medication should be properly labeled with instructions.
9. All Volunteers/Chaperones should not drink alcohol/use ill-legal drugs or smoke.
10. Volunteers/Chaperones should wear any PPE (personal protective equipment) as required or requested by the lead supervisor.

Volunteers/Chaperones who transport students must follow the following guidelines:

1. No student should be transported in any vehicle with occupancy of more than ten unless it’s a yellow school bus.
2. All drivers must submit proof of current insurance.
3. All drivers should provide an MVR.
4. All drivers must make sure all occupants, including the driver, are restrained in age-appropriate devices.
5. The use of cell phones while driving should be prohibited.

## **SAFETY RULES**

The establishment of safety rules and guidelines is vital process in managing safety and risk management. Safety rules establish the necessary guidelines needed to manage and control a safe environment. These rules and guidelines should be used to communicate the importance of safety and are valuable training tools. A sample of employee/volunteer safety rules and guidelines follows.



## ***Critical Safety Guidelines***

### **ADMINISTRATIVE/CLERICAL STAFF**

The safety of our employees is of utmost importance. The safety guidelines listed below are established to provide some straightforward guidance and direction to perform your job activities safely.

*Please review the guidelines, sign the bottom, and return them to your supervisor.*

1. All accidents are to be reported to your supervisor within the same workday.
2. All unsafe conditions are to be reported to your supervisor immediately.
3. No running or horseplay is permitted.
4. The use of, or being under the influence of, liquor or controlled substances on school property during work is prohibited.
5. Standing on chairs, desks, or boxes is prohibited. A ladder or step stool must be used.
6. The burning of candles is prohibited.
7. If your job requires you to drive, the use of a seatbelt is mandatory, and the use of a cell phone is prohibited.

---

Printed Name

---

Signature

---

Date



## ***Critical Safety Guidelines***

### **DIRECT SERVICES STAFF**

The safety of our employees is of utmost importance. The safety guidelines listed below are established to provide some straightforward guidance and direction to perform your job activities safely.

*Please review the guidelines, sign the bottom, and return them to your supervisor.*

1. All accidents are to be reported to your supervisor within the same workday.
2. All unsafe conditions are to be reported to your supervisor immediately.
3. No running or horseplay is permitted.
4. The use of, or being under the influence of, liquor or controlled substances on school property during work is prohibited.
5. Standing on chairs, desks, or boxes is prohibited. A ladder or step stool must be used.
6. The burning of candles is prohibited.
7. All PPE (personal protective equipment) required by your supervisor must be worn appropriately.
8. If there is a possibility of being exposed to blood or body fluid, proper personal protective equipment should be used.
9. If your job requires you to drive, the use of a seatbelt is mandatory, and the use of a cell phone is prohibited.

---

Printed Name

---

Signature

---

Date



## ***Critical Safety Guidelines***

### **CUSTODIAL/MAINTENANCE/GROUNDS STAFF**

The safety of our employees is of utmost importance. The safety guidelines listed below are established to provide some straightforward guidance and direction to perform your job activities safely.

*Please review the guidelines, sign the bottom, and return them to your supervisor.*

1. All accidents are to be reported to your supervisor and an accident report document completed within the same workday as the accident occurrence.
2. All unsafe conditions are to be remedied (if you can safely and competently cause this to happen) or reported to your supervisor immediately.
3. No running or horseplay is permitted.
4. The use of, or being under the influence of, liquor or controlled substances on school property during work is prohibited.
5. Standing on chairs, desks, or boxes is prohibited. A ladder or step stool must be used following all manufacturers' safety guidelines and weight restrictions. For example, do not stand on the top step of a step ladder.
6. If you are working on a mobile platform more than 6 feet from the ground, a fall restraint system should be used.
7. When mixing chemicals or working with power equipment, eye protection must be worn.
8. If you must fuel power equipment, turn it off and let it cool first.
9. When working with power equipment, all guards must be kept in place.
10. If your job requires you to drive, either a vehicle or lawn care equipment, the use of a seatbelt is mandatory, and the use of a cell phone is prohibited.
11. The employee is responsible for inspecting all Personal Protective Equipment (PPE) prior to its use.
12. The employee is responsible for wearing PPE.

13. All batteries must be maintained per the manufacturer's recommendations. When checking or filling batteries, do so in an area having an emergency eyewash station nearby. Eye and skin protection are required.
14. Wet floor signs must be used when performing a wet floor cleaning procedure or whenever and wherever wet floors are observed.
15. Never do anything that you reasonably think is unsafe. Explain and discuss the condition with your immediate supervisor and, if necessary, utilize the upward chain of command to resolve your concerns.

---

Printed Name

---

Signature

---

Date



## ***Critical Safety Guidelines***

### **NUTRITION SERVICES STAFF**

The safety of our employees is of utmost importance. The safety guidelines listed below are established to provide some straightforward guidance and direction to perform your job activities safely.

*Please review the guidelines, sign the bottom, and return them to your supervisor.*

1. All accidents are to be reported to your supervisor within the same workday.
2. All unsafe conditions are to be reported to your supervisor immediately.
3. No running or horseplay is permitted.
4. The use of, or being under the influence of, liquor or controlled substances on school property during work is prohibited.
5. Standing on chairs, desks, or boxes is prohibited. A ladder or step stool must be used.
6. When working around hot environments and moving hot equipment, the use of pot rags or gloves is required.
7. Never place sharp knives in soapy water.
8. When working with power equipment, all guards must be kept in place.
9. The burning of candles is prohibited.
8. If your job requires you to drive, the use of a seatbelt is mandatory, and the use of a cell phone is prohibited.

---

Printed Name

---

Signature

---

Date



## ***Critical Safety Guidelines***

### **NURSE**

The safety of our employees is of utmost importance. The safety guidelines listed below are established to provide some straightforward guidance and direction to perform your job activities safely.

1. All accidents are to be reported to your supervisor within the same workday.
2. All unsafe conditions are to be reported to your supervisor immediately.
3. No running or horseplay is permitted.
4. The use of liquor or controlled substances is prohibited. Coming to work under the influence is also prohibited.
5. Standing on chairs, desks, or boxes is prohibited. A ladder or step stool must be used.
6. The burning of candles is prohibited.
7. If your job requires you to drive, the use of a seatbelt is mandatory, and the use of cell phone is prohibited.
8. If there is a possibility of being exposed to blood or body fluid, proper personal protective equipment should be used.
9. All used syringes should be disposed of in a sharps container.
10. All medications should be secured in a locked cabinet or room.

---

Printed Name

---

Signature

---

Date





## ***Critical Safety Guidelines***

### **CERTIFIED/PROFESSIONAL STAFF**

The safety of our employees is of utmost importance. The safety guidelines listed below are established to provide some straightforward guidance and direction to perform your job activities safely.

*Please review the guidelines, sign the bottom, and return them to your supervisor.*

1. All accidents are to be reported to your supervisor within the same workday.
2. All unsafe conditions are to be reported to your supervisor immediately.
3. No running or horseplay is permitted.
4. The use of, or being under the influence of, liquor or controlled substances on school property during work is prohibited.
5. Standing on chairs, desks, or boxes is prohibited. A ladder or step stool must be used.
6. If your classroom environment requires, all necessary Personal Protective Equipment (PPE) must be utilized. For example, science labs, art rooms, and industrial technology labs may require eye protection or some additional PPE.
7. The burning of candles is prohibited.
8. If your job requires you to drive, the use of a seatbelt is mandatory, and the use of a cell phone is prohibited.

---

Printed Name

---

Signature

---

Date



## Safety Best Practices

### Self - Inspection

#### INTRODUCTION

One of the most important aspects of any effective safety program is the implementation of a comprehensive, self-inspection program. Periodic self-inspections of buildings and grounds by personnel help identify and correct hazards and unsafe acts before an accident or injury occurs. In addition, documentation of self-inspection reports helps verify the facility's commitment to safety and ongoing loss control program.

#### DOCUMENTATION

A Self-Inspection Checklist/Report should be utilized to document the inspection process. A Safety Inspection form is provided on the following page. The hazards cited in each section should be described in detail and indicate the exact location of the hazard for prompt follow-up/corrective measures.

Self-Inspection Checklist/Report forms may be developed for specific areas to help improve inspection efficiency. ***Additional inspection checklists are listed under topic-specific sections of the Safety Best Practices Loss Control Manual.***

#### INSPECTION FOLLOW-UP

After the inspection is completed, a list of recommendations or items to be corrected should be developed for each building and inspection area. The list of recommendations should be forwarded to the appropriate administrator or maintenance personnel for necessary follow-up. It should also be used as a guideline during the next self-inspection to help ensure that these hazards have been corrected.

#### INSPECTION FREQUENCY

Inspection frequency will be determined by several factors, including building and campus size, layout, and any unique concerns or hazards at that facility.



## Self-Inspection Checklist

<b>Inspector(s):</b>					
<b>Date:</b>					
<b>Inspection Item</b>	<b>Yes</b>	<b>No</b>	<b>Location</b>	<b>Comment</b>	<b>Date Corrected</b>
<b>Exits/Halls</b>					
Are EXITS unobstructed?					
Can EXIT doors be opened freely from the inside?					
Are Emergency lighting units working properly?					
Are all EXIT lights illuminated?					
<b>Fire Safety</b>					
Are fire extinguishers unobstructed?					
Does the fire extinguisher gauge read ready?					
<b>Walking Surfaces</b>					
Are floors/stairs free from debris which could create a trip/fall?					
Are floors/stairs free from liquid spills which could cause a slip/fall?					
Is lighting adequate?					
Are handrails in good repair?					
<b>Electrical</b>					
Are cover plates in place over all electrical receptacles and switches?					
Are safety caps in non-used electrical receptacles in public areas?					
Are portable extension cords free from damage?					
Do all portable extension cords have the third prong ground plug?					
<b>General</b>					
Is housekeeping adequate?					
Are chemicals including household chemicals stored in locations restricted to the public?					
Are ladders/stools stored in an area restricted to the public?					
Are all custodial/maintenance room locked?					
<b>Other</b>					



## Physical Safety Review

<b>Facility:</b>	<b>Date:</b>
<b>Inspection Team:</b>	

### Fire & Life Safety

Item	Needs Attention	Location	Date Corrected
A multi-purpose fire extinguisher is needed			
Fire extinguisher needs recharging			
Fire extinguisher tag is missing or outdated			
Fire detection system including smoke alarms should be installed/repared or updated.			
Flammable liquids should be stored in UL listed flammable liquids cabinet			
Emergency light needed or repaired			
Illuminated "Exit" light is needed or is in need of repair			
Emergency evacuation plan and map needed			
Crisis guidebooks needed			
CO detector needed			
Remove candles and candle warmers, and institute a policy prohibiting their use			
Remove items that block access to the designated emergency exits			
Stored items cannot be within 18 inches of a fire sprinkler head			
All exterior doors should be numbered so they are visible for emergency responders			

### AED'S

Does the location have an AED?

☐ YES

☐ NO

Item	Needs Attention	Location	Date Corrected
A maintenance contract is needed for the AED			
Formal staff training is needed in CPR and the use of AED's			

## Electrical Safety

Item	Needs Attention	Location	Date Corrected
Fluorescent lights need protective sleeves			
GFCI protection needed within 6 feet of water source			
Repair/replace extension cord (ungrounded)			
Electrical cover plate needed			
Electrical outlets need safety caps			
Electrical circuits need to be properly labeled in the panel.			

## General Safety

Item	Needs Attention	Location	Date Corrected
Shelves greater than 60" need to be anchored to wall or be engineered for free standing.			
The high unstable storage or items should be removed			
Housekeeping needs improvement			
Custodial/mechanical rooms should be locked			
A handrail should be installed/repared.			
The paper cutter needs a finger guard			
A slip, trip or fall hazard exist.			
TV's need to be secured to carts			
All chemicals must be labeled, using the designated manufacturer's stick on labels or pre-printed bottles			
Chemicals need to be stored in locked cabinets			
The chain link fence should be repaired or the top edge covered			
The ladder is in poor repair and should be discarded			
A guard is missing			

## Security

Item	Needs Attention	Location	Date Corrected
Perimeter doors should be locked from the outside. As practical			
Signs are needed to direct visitors to the main office			
Shrubs and foliage needs to be trimmed to allow for a good line of sight (3'- 8' rule)			
Graffiti should be removed			
Additional lighting is needed in this area			
A crash barrier should be installed			
All meeting room doors should have the ability to be locked. This includes either a "classroom style" lock or a dead bolt with a thumb latch on the inside and a key opening on the outside			
All main egress doors equipped with "panic type" hardware			
Video monitoring should be considered for this area			



## High School

### Physical Safety Review

<b>School:</b>	<b>Date</b>
<b>Inspector(s):</b>	

### Fire & Life Safety

Item	Needs Attention	Location	Date Corrected
A multi-purpose fire extinguisher is needed			
Fire extinguisher needs recharging			
Fire extinguisher tag is missing or outdated			
Type K fire extinguisher needed			
Range hood suppression system needed or updated to comply with UL300			
Fire alarm system needed or updated to comply with ADA requirements			
Flammable liquids should be stored in UL listed flammable liquids cabinet			
Emergency light needed or repaired			
Illuminated "Exit" light is needed or is in need of repair			
Emergency evacuation plan and map needed			
Crisis guidebooks needed in classroom			
CO detector needed			
Remove candles and candle warmers, and institute a policy prohibiting their use			
Remove items that block access to the designated emergency exits.			
Stored items cannot be within 18 inches of a fire sprinkler head.			
All exterior doors should be numbered so they are visible for emergency responders.			
Current Pressure vessel/air compressor inspection needed. Mandated through the Division of Fire Safety			
Current Elevator inspection needed. Mandated through the Division of Fire Safety			
Current Boiler Inspection needed. Mandated through the Division of Fire Safety			

## AED'S

Does the location have and AED?

☐ YES

☐ NO

Item	Needs Attention	Location	Date Corrected
A maintenance contract is needed for the AED			
Formal staff training is needed in CPR and the use of AED's			

## Electrical Safety

Item	Needs Attention	Location	Date Corrected
Fluorescent lights need protective sleeves			
GFCI protection needed within 6 feet of water source			
Repair/replace extension cord (ungrounded)			
Electrical cover plate needed			
Electrical outlets need safety caps			
Electrical circuits need to be properly labeled in the panel			

## Food Service Safety

Item	Needs Attention	Location	Date Corrected
Anti-slip mat needed			
Meat slicer adjusted to 0 degrees			
Emergency exit in freezer/refrigerator needs repair			
A thermometer is needed in the refrigerator/freezer			
A step ladder/stool is needed in the store room			



## General Safety

Item	Needs Attention	Location	Date Corrected
Shelves greater than 60" need to be anchored to wall or be engineered for free standing.			
The high unstable storage or items should be removed.			
Housekeeping needs improvement.			
Custodial/mechanical rooms should be locked.			
A handrail should be installed.			
The paper cutter needs a finger guard.			
A slip, trip or fall hazard exist.			
TV's need to be secured to carts.			
All chemicals must be labeled, using the designated manufacturer's stick on labels or pre-printed bottles.			
Side/back rails on bleachers needed or need to comply with CPSC standard.			
(Certified) bleacher inspection needed to determine compliance with CPSC guideline.			
Chemicals need to be stored in locked cabinets.			
Cutlery should be stored in a locked location when not in use.			
The chain link fence should be repaired or the top edge covered.			
The ladder is in poor repair and should be discarded.			

## Weight Room Safety

Item	Needs Attention	Location	Date Corrected
Weights left on bars should be removed and placed in proper storage.			
Broken mirror needs to be replaced.			
Safe equipment use guidelines need to be posted.			
Vinyl covering on the bench needs replacement.			
Safety Bars should be used on the power racks.			
Sanitizing solution needed for the room.			

## Science Lab Safety

Item	Needs Attention	Location	Date Corrected
Safety guidelines should be posted.			
Eye protection needed and properly sterilized.			
Proper gloves need to be provided.			
Emergency eye wash which can flush 15 minutes needed.			
Eyewash solution is expired.			
Eyewash stations need to be tested on a monthly basis.			
An emergency shower is needed.			
Ventilation system should be repaired or installed.			
All chemical bottles must be labeled, using the designated manufacturer's stick on labels or pre-printed bottles.			
All chemical bottles need to be stored in approved cabinets or storage closets.			
SDSs are needed for chemicals.			
A chemical inventory is needed.			
Chemicals past the expiration date should be properly disposed.			
Acids should be stored in acid cabinets.			
Chemicals should be stored in compatible family groups.			
Chemical shelves should have front lip.			
Chemical spill kit needed.			
Gas should be shut off when not in use			
Emergency gas shut off switch should be identified and labeled.			
GFCI electrical receptacles are needed.			
The V belt needs to be guarded.			

## Exterior & Interior

Item	Needs Attention	Location	Date Corrected
<b>EXTERIOR</b>			
All perimeter doors should be locked from the outside.			
The glass in all exterior doors should be replaced with laminated glass.			

## Exterior (Continued)

Item	Needs Attention	Location	Date Corrected
<b>EXTERIOR (continued)</b>			
The main entrance door should be electronically opened			
An intercom is needed at the main entrance			
Video monitoring is needed at exterior doors			
Signs are needed to direct visitors to the main office.			
All exterior doors should be numbered. Contact local fire and law enforcement for guidelines. Corresponding numbers should also be placed on the inside of the exterior doors.			
Shrubs and trees needs to be trimmed to allow for a good line of sight (3'-8' rule). Shrubs trimmed to 3' and tree canopies trimmed up to 8'			
Graffiti should be removed.			
Perimeter lightings should be located around the building.			
A crash barrier should be installed.			
<b>INTERIOR</b>			
All classroom doors should have the ability to be locked. This includes either a "classroom style" lock or a dead bolt with a thumb latch on the inside and a key opening on the outside.			
The glass in all classroom doors should be replaced with laminated glass.			
All main egress doors equipped with "panic type" hardware			
All vacant lockers should be secured or locked			
All custodial and maintenance rooms should be locked			
Video monitoring should be located in all halls and stairwells			
All windows should have shades or blinds which can close			
2-way communication is needed in all classrooms			
Crisis management plans need to be accessible in all rooms			

## Exterior & Interior (Continued)

Item	Needs Attention	Location	Date Corrected
<b>POLICY/TRAINING</b>			
All students/staffs should be issued ID badges			
All visitors must sign in and be issued a visitor badge			
Minimum of 2 lockdown drills are completed each school year			
Minimum of 2 shelter-in-place drills are completed each school year			
Reverse evacuation procedures are provided to staff			
The Red/Green card system should be utilized			
Sub-teachers are trained in security guidelines			
A SRO should be considered			
Invite law enforcement into the school to complete paperwork or drink a cup of coffee			

### Other

---



---



---



## **Safety Best Practices**

### **Security**

#### **INTRODUCTION**

Security within our facilities should become an integral part of our daily activities. Depending upon the facility, all security programs will look slightly different. However, all facilities must complete a security assessment and implement effective and practical security measures.

#### **SECURITY GUIDELINES/PROCEDURES**

Security guidelines and procedures cover several key areas:

- Access Control/key control
- Visitor Policies
- Suspicious Person/Intruder
- Workplace Violence/Active Shooter
- Outside Organizations use of the Facilities

All of these action items need to be addressed in a formal policy developed and tailored to the individual locations.

#### **PHYSICAL SECURITY**

The physical security of the facility is key to implementing sound security procedures. At a minimum, consideration should be given to maintaining perimeter security at all times, as practical.

#### **EMPLOYEE AWARENESS**

All employees should receive training in basic security awareness and all procedures adopted by your facility. Additionally, all employees should participate in all the recommended training and drills.

## **GENERAL GUIDELINES**

There are five primary areas which should be addressed:

- Perimeter and classroom physical security
- Security policies
- Security training and intruder drills
- Threat assessment
- Armed Security Personnel

Let's review each of these topics a little closer.

### **Physical Security**

The physical security of your campus, schools, and classrooms continues to be one of the essential areas to address. *However, with this in mind, our security efforts cannot interfere with the "Life Safety Code" guidelines.* We need to look closely at any security measures being considered to ensure they do not create a life safety issue or other safety concerns.

Some key physical security items to consider include:

- All perimeter doors need to be locked from the outside, including kitchen doors and doors used for playground access.
- Video monitoring should be considered at all entrances, but at a minimum, it should be installed at the main entrance to the school.
- The main entrance should have a communication system with the main office.
- All classroom doors should have the ability to be locked. It is strongly recommended that doors that require a key to secure them be "pre-locked."
- First-floor windows and windows in classroom doors should have shades or blinds so they can be closed during an intruder event.
- Glass panels in classroom doors should have a transparent security film placed on them, so they are more impact resistant.
- Each classroom should have two-way communication with the office.

## Security Policies

It is also important that our security policies be reviewed and updated to address potential concerns. The policies should then be communicated to the staff. Probably one of the most important procedures to review is the visitor and vendor policy. Do you have a system in place which requires the visitor/vendor to sign in, wear a visitor lanyard, and sign out when leaving? Even a better policy is to collect some form of identification when they enter the school building.

## Security Training and Intruder Drills

All staff and students should be routinely trained in intruder policies and how to react to an intruder. A minimum of two intruder drills should be completed every school year. Training and drills should include the following:

- Confronting any person in the building who is not wearing a “visitor lanyard.”
- The importance of maintaining perimeter security.
- Not opening perimeter doors for individuals and instead directing them to the main entrance.
- How to properly secure classrooms and other safe areas
- The importance of option based responses
- These actively require teachers and staff to make split-second decisions. **All staff need to be trained in option based responses.**

## Threat Assessment

A key component in eliminating an active shooter event is to identify any potential threats before they escalate into an actual event. This is the primary purpose and focus on the threat assessment process. Analysis of past events has told us that many times one or more students, teachers, or others were given clues that the event was going to take place. A program must be put in place so these clues can be communicated to a common person or team so they can be evaluated and perhaps acted upon to keep the event from occurring.

## **MUSIC SPECIFIC GUIDELINES**

### **Armed Security Personnel**

Within the MUSIC program, you have several different options for armed security personnel on the school campus. They include the following:

- ***A commissioned law enforcement officer***  
MUSIC believes this is the best option. This individual is an SRO or similar commissioned officer assigned to the school district or school event. In this scenario, the commissioned officer is largely controlled by the local police chief or county sheriff. The police chief or sheriff will ensure the SRO maintains their commission, weapons qualifications, physicals, and mental assessments.
- ***A school protection officer (SPO)***  
In 2014, the Missouri legislator passed SB 656. This legislation created the position of an SPO in a school. If your district is interested in appointing an SPO, you must follow all criteria outlined within the bill. The SPO must receive all POST required training. In this scenario, the SPO is not commissioned by the local police chief or sheriff. Therefore, they will not have a relationship with the juvenile system, and their powers are limited.

To maintain their designation, School Protection Officers shall—

- (A) Complete a minimum of twelve (12) hours of annual training. Eight (8) hours of this training shall have a primary focus of responding to active school shootings and shall be delivered by a local, county, or state law enforcement officer qualified to offer a response to active shooter course and who has a valid peace officer license. The remaining four (4) hours of training shall have a primary focus of weapon retention, firearms skill development, defensive tactics, ground fighting, and handcuffing and restraint devices. The four (4) hours of training shall be delivered by a local, county, or state law enforcement officer qualified to offer this type of training and who has a valid peace officer license.
- (B) On a quarterly basis, complete a firearm qualification course using the same firearm used in the performance of their duties as a School Protection Officer. This course can be delivered by any local, county, or state law enforcement officer qualified to offer a firearm qualification course and who has a valid peace officer license.
- (C) Maintain a secondary/third-party First Aid/CPR certification.

Written documentation of the completion of the twelve (12) hours of annual training, successful quarterly firearm qualification, and a current copy of his/her secondary/third-party First Aid/CPR certification must be maintained by the school where the School Protection Officer is employed for a period of three (3) years from the date the training, qualifications, and certifications were successfully completed.

In addition to the above requirements, all SPO should be given a mental health assessment on a routine basis.



- ***Contracted security service***

Under this scenario, the school hires an outside security firm to provide security at the school or school event. If you enter into this type of agreement, the contract must require that the private security company requires their security staff to maintain weapons qualifications and mental health assessments. The district should also require a certificate of insurance from the private security firm for both liability and work workers' compensation.

- ***District security staff***

The school hires, and employs off duty commissioned law enforcement officers to perform security activities on campus. The written agreement or contract with these officers must specify job duties and other actions the officers may participate in while on campus. I strongly recommend that you have your legal counsel draft the employee agreement.

- ***Hybrid security service***

There is only one company that I am aware of, which provides this service. (Shield Solutions) Under this scenario, the school district allows staff members to become armed. The district contracts with Shield Solutions to provide training, mental health assessments, and receive weapons qualifications for selected staff. Shield Solutions also offers on-going training and mental health assessments. The contract with Shield Solutions indicated that if a Shield Solutions trained person is to use their weapon as a result of an active shooter event, they immediately become a Shield Solutions employee and will be covered by the liability and work comp insurance of Shield Solutions.

## Campus Security

Item	Needs Attention	Location	Date Corrected
<b>EXTERIOR</b>			
All perimeter doors should be locked from the outside.			
The glass in all exterior doors should be replaced with laminated glass.			
The main entrance doors should be electronically opened			
An intercom is needed at the main entrance			
Video monitoring is needed at exterior doors			
Signs are needed to direct visitors to the main office.			
All exterior doors should be numbered. Contact local fire and law enforcement for guidelines. Corresponding numbers should also be placed on the inside of the exterior doors.			
Shrubs and trees needs to be trimmed to allow for a good line of sight (3'-8' rule).			
Graffiti should be removed.			
Perimeter lightings should be located around the building.			
A crash barrier should be installed.			
All exterior doors should be numbered			
<b>INTERIOR</b>			
All classroom doors should have the ability to be locked. This includes either a "classroom style" lock or a dead bolt with a thumb latch on the inside and a key opening on the outside.			
The glass in all classroom doors should be replaced with laminated glass or a clear security film placed on them.			
All main egress doors equipped with "panic type" hardware			
All vacant lockers should be secured or locked			
All custodial and maintenance rooms should be locked			

## Campus Security

Item	Needs Attention	Location	Date Corrected
<b>INTERIOR (continued)</b>			
Video monitoring should be located in all halls and stairwells			
All windows should have shades or blinds which can close			
2-way communication is needed in all classrooms			
<b>POLICY</b>			
Crisis management plans need to be accessible in all rooms			
All visitors must sign in and be issued a visitor badge			
Minimum of 2 intruder drills are completed each school year			
Reverse evacuation procedures are provided to staff			
The Red/Green card system should be utilized			
Sub-teachers are trained in security guidelines			
Consider a school SRO			
Invite law enforcement to visit campus frequently for a cup of coffee, lunch or to complete paperwork			



## **Safety Best Practices**

### **Fleet Safety**

#### **INTRODUCTION**

The district's fleet is a valuable asset. However, if not properly maintained, monitored, and if no safety program is in place, it can become a significant liability and problem.

#### **ELEMENTS OF A FLEET SAFETY PROGRAM**

Numerous elements need to be incorporated into the district's fleet safety efforts. All of these elements must be reviewed and integrated into your daily activities.

- Driver Responsibilities
- Driver Selection and Evaluation
- Driver Safety Orientation
- Driver Training
- Vehicle Maintenance/Inspection
- Accident Procedures and Reporting

#### **Driver Responsibilities**

All individuals who drive vehicles are representatives of the district. The actions that drivers take directly influence attitudes and perceptions of the member. It is essential that all drivers are courteous and follow all traffic regulations and ensure all passengers are in age-appropriate restraints.

#### **Driver Selection and Evaluation**

Only qualified and responsible drivers should be allowed to operate the school's vehicles or perform school business in personal vehicles. The following are some guidelines on driver selection and evaluation.

- Check the applicant's driver's license for the expiration date, identification number, and classification for the type of equipment to be operated.
- Complete a MVR (Motor Vehicle Records Check). This check should be completed annually.

- All drivers who transport students in vehicles with an occupancy rating of 10 or less should have a Class E license with an S endorsement.

### **Driver Safety Orientation**

New employees who will be operating vehicles shall complete a documented vehicle safety orientation with their supervisor. The safety orientation procedure will follow a standard format with modifications, as necessary, to meet the particular needs of particular jobs or operations. The objectives of the vehicle safety orientation are to:

- Ensure that all new hires are thoroughly familiar with the safe operation of their vehicle(s) and how to avoid accidents/injuries.
- Provide employees with a formal introduction to the school's fleet safety program and management's expectations.
- Review with each new employee, on an individual basis, his or her vehicle safety responsibilities and role in the fleet safety and loss prevention effort.
- All vehicles with an occupancy rating of over ten persons cannot be used to transport students.
- Ensure that all passengers are in age-appropriate restraint systems.

### **Driver Training**

Well-trained drivers operate more efficiently, burn less fuel, wear out fewer tires, and have fewer breakdowns on the road. They require less supervision than new drivers. Why? Because more experienced drivers know what they are supposed to do and how to do it. Statistically, they are involved in fewer accidents because they know how to drive properly.

All drivers of vehicles and other drivers who transport students will be subject to vehicle safety awareness training on a regularly scheduled basis. This training will be documented to verify training content and attendance.

Training will be provided by the supervisor or their designee and can be based on a number of topics related to vehicle/driver safety. The trainer may elect to use some prepared fleet safety topics or may choose to address a specific safety concern.

## **Vehicle Maintenance and Inspection**

Motor vehicle fleets require regular safety inspections and maintenance to keep equipment operating safely and efficiently. Most successful fleets follow a program that consists of regular vehicle checks by drivers and scheduled preventive maintenance inspections by mechanics on a time or mileage basis.

### *School Owned Vehicles*

- Complete the Vehicle Condition Report
- Check for a current insurance card
- Check for a current state safety inspection sticker
- Check for age-appropriate restraints

### *Personal Vehicles used on School Business*

- Check for a current insurance card
- Check for a current state insurance sticker if applicable
- Check for age-appropriate restraints

### *Vehicles used to Transport Students*

- Complete the Vehicle Condition Report
- Check for a current insurance card
- Check for a current state safety inspection sticker
- Check for age-appropriate restraints

## **Accident Procedures and Reporting**

All drivers should be trained in the procedures to follow if they are involved in a traffic accident with a vehicle. The driver involved has the vital role of making the initial accident report. ***The sample “Vehicle Accident Checklist” should be placed in each vehicle.***



## ***Driver Orientation Checklist***

The supervisor should thoroughly instruct each new employee driver in the safety requirements for operating district vehicles. This checklist is provided as a general guideline and means to document this activity. Check each of the items on this form at the time they are reviewed, and when completed, sign the form and place it in the employee's file.

EMPLOYEE'S NAME: \_\_\_\_\_

DEPARTMENT: \_\_\_\_\_

OCCUPATION: \_\_\_\_\_ DATE HIRED: \_\_\_\_\_

1. Driver Responsibilities

- \_\_\_ A. Provide written copy of the driver safety guidelines.
- \_\_\_ B. Review and discuss the driver safety guidelines.
- \_\_\_ C. Conduct joint vehicle condition report.

2. Accident Procedures

- \_\_\_ A. Provide written copy of vehicle accident reporting guidelines.
- \_\_\_ B. Review and discuss the vehicle accident reporting guidelines.

3. Motor Vehicle Record (MVR) Policies

- \_\_\_ A. Provide written copy of MVR.
- \_\_\_ B. Review and discuss the MVR.

I have reviewed and discussed with this employee the safe driving guidelines, requirements, and procedures outlined in this checklist and reasonably feel that he/she can perform his/her driving functions safely.

SIGNED BY SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

I have reviewed and discussed with my supervisor the driving safety requirements and procedures outlined in this checklist.

SIGNED BY EMPLOYEE: \_\_\_\_\_ DATE: \_\_\_\_\_



## Vehicle Condition Report

Driver: \_\_\_\_\_

Department: \_\_\_\_\_

Unit #: \_\_\_\_\_

Mileage: \_\_\_\_\_

ITEM	N/A	GOOD	NEEDS REPAIR	COMMENTS
Head Lights				
Brake Lights				
Tail Lights				
Turn Signals				
Emergency Flashers				
Tires				
Brakes				
Steering				
Windshield Wipers & Fluid				
Horn				
Seat Belts				
Age Appropriate Child Restraints				
Dash/Interior Lights				

Please describe any additional safety concerns: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



## Driver Safety Guidelines

1. Follow defensive driving practices to help drivers protect themselves, other employees, and the public from accident/injury.
2. Inspect the vehicle regularly. (See attached Vehicle Condition Form)
3. Report any evidence of accident damage immediately to your supervisor.
4. Report any unsafe conditions immediately to your supervisor and request another vehicle. Vehicles with steering or braking defects shall not be driven and will be towed to an authorized garage for repairs.
5. Call appropriate law enforcement agencies to report ALL collisions and provide information to your supervisor as soon as possible.
6. Never allow an unauthorized passenger or driver to ride in or operate the vehicle.
7. Possess a valid operator's license and adhere to all applicable state and local motor vehicle laws.
8. Never allow passengers to ride other than in the passenger compartment. Violation of this rule will subject the driver to termination.
9. Never operate a vehicle while under the influence of prescription or "over the counter" drugs that may impair driving skills. The use of alcohol and/or illegal drugs while operating a school vehicle will subject the driver to termination.
10. Secure the vehicle and vehicle equipment when unable to provide direct supervision of it.
11. Always wear your seat belt. All occupants of the vehicle must also wear seat belts.
12. Do not use cell phones or portable radios while driving.

---

Signature of Driver

---

Date



## **Vehicle Accident Checklist**

- **Check on injuries**
- **Contact 911**
- **Contact School Administration**
- **Move vehicle if it is creating a hazard**
- **Turn off the vehicle**
- **Turn on flashers**
- **Put out triangles**
- **Don't admit liability**
- **Answer questions of law enforcement with only the facts—Do not give opinions**
- **Answer questions from an insurance company with only the facts**



## **Safety Best Practices**

### **School Transportation School Buses**

The safe transportation of students to and from school and other events is the primary goal of the District. The following guidelines should be followed:

The following guidelines should be followed:

- Any vehicle with an official occupancy rating of more than ten cannot be used to transport students unless it is a yellow school bus.
- Individuals who transport students in a non-school bus should have a Class E license with an S Endorsement.
- If the bus is used to transport students to and from school daily, then the bus must also be inspected by the Missouri State highway patrol every spring before the start of school.

The following shall apply to all individuals who drive students in a school bus owned or operated by a school district:

- All school bus drivers must possess a valid Commercial Driver's License (CDL) with school bus (S) endorsement.
- All drivers must receive an annual Motor Vehicle Records (MVR) check.
- All school bus drivers must submit a bi-annual statement that they are physically qualified to operate a school bus and transport pupils. This statement must be issued and signed by a qualified medical examiner (doctor of medicine, doctor of osteopathy, physician assistant, advanced practice nurse, or doctor of chiropractic).
- All drivers must submit to a Missouri Family Care Safety Registry background check.
- All drivers must be trained in the MUSIC Sexual Misconduct training.
- Bus drivers shall comply with all Missouri laws and regulations pertaining to school bus drivers, including participation in eight hours of training annually.
- All drivers should be placed in a drug and alcohol screen program.

The following shall apply when a school district contracts with a bus service or common carrier to transport children:

- The contracted bus service must provide a certificate of insurance evidencing a minimum of \$5 million in auto liability limits. This minimum limit can be accomplished using a combination of primary and umbrella policies. Contractor must show the district as an additional insured on their policy. In addition, the certificate of insurance must show Workers' Compensation coverage for all employees of the contracted bus service. If less than 5 employees, this is not required.
- The contracted service must demonstrate that they have put all of their drivers through a criminal background check.

### **SCHOOL BUS TRANSPORTATION**

A quality, effective training program can help school bus drivers focus on safety and reduce accidents. The goal of a school should be to help drivers achieve an accident and incident-free trip. The following guidelines have been developed to help schools implement an effective and safe transportation system.

### **GENERAL RULES**

The following general rules and guidelines apply to all bus drivers. The rules are designed to ensure that all students are transported to and from school or an event safely.

- Keep the inside of the bus clean.
- Keep the service door closed at all times when the bus is in motion.
- Never leave a loaded bus while it is running.
- Fill the fuel tank only when there are no students on the bus.
- Never allow animals on the bus, unless they are utilized to assist a student with a handicap
- Never allow weapons or explosives on the bus.
- Never allow students to throw items or hang body parts out of the windows.
- Always wear a seat belt while operating the bus.
- Illuminate the headlamps when students are being transported.
- Never use tobacco products on the bus.
- Never operate the bus under the influence of alcohol and drugs.
- Never transport a child under the age of 4 years without having them secured in an approved child restraint device.
- Report all bus accidents immediately to your supervisor.
- Obey all posted traffic signs.
- Obey all Missouri traffic laws.

## **PRE-TRIP INSPECTIONS**

A pre-trip inspection of the bus is ultimately the driver's responsibility. Drivers should carefully inspect the inside of the bus, outside of the bus, and under the hood.

# School Bus Pre-Trip Inspection

## Engine Compartment

- ☐ Oil level
- ☐ Transmission Fluid
- ☐ Belts & hoses
- ☐ Power steering fluid
- ☐ Coolant level
- ☐ Air compressor(Air brakes only)
- ☐ Master cylinder(Hydraulic only)
- ☐ Other leaks

## External Inspection

- ☐ Current inspection sticker
- ☐ Headlights/brake lights
- ☐ Turn signals/hazard lights
- ☐ Reflectors/side markers/lights
- ☐ Exhaust
- ☐ Rear door latch
- ☐ Mirrors
- ☐ Fuel tank/cap

### Each Wheel

- ☐ Tires proper PSI
- ☐ Tires sidewalls/tread
- ☐ Lug nuts/rims
- ☐ Axle seals
- ☐ Brakes-drums/rotors/linings
- ☐ Slack adjusters/chambers/hoses
- ☐ Wheel flaps

## Conventional Brakes

- ☐ Parking Brake
- ☐ Service brake
- ☐ Electrical assist(If equipped)

## In-Cab Air Brake System

- ☐ Parking Brake
- ☐ Service Brake
- ☐ One-minute air loss
- ☐ Low air warning
- ☐ Emergency system engaged
- ☐

## Internal Inspection

- ☐ Oil pressure builds
- ☐ Ammeter/voltmeter
- ☐ Steering play
- ☐ Horn
- ☐ Clutch/gearshift
- ☐ Mirror adjustment
- ☐ Windshield
- ☐ Wipers
- ☐ Heater/defroster
- ☐ Fuses/breakers
- ☐ Fire extinguisher
- ☐ First aid kit
- ☐ Body fluid clean up kit
- ☐ Emergency procedure guides
- ☐ Reflective triangles
- ☐ Housekeeping
- ☐ Two way radio
- ☐ Operation of 8-lamp system

## Other Items

---



---



---

## **EMERGENCY PROCEDURES AND EVACUATION**

An emergency can happen at any time. It is imperative to be prepared to react in the event of an emergency. Pre-planning and practice drills are very important in managing and controlling an emergency scene.

The most important thing for consideration is to recognize a hazard and to begin to address the issues. An evacuation of the bus should not be done unless the students are in immediate danger.

### ***Student bus captain(s)***

At least one student bus captain should be identified and trained in emergency procedures. The parents must give the student captain(s) written permission. The student captains should be trained in the following:

- How to turn off the ignition switch and set the parking brake
- How to summons help
- How to kick out windows
- How to set reflectors
- How to open and close the doors and help small children exit the bus
- How to maintain student accountability

### ***General Evacuation Procedures***

Once it has been determined that evacuation of the bus is needed, follow these general guidelines.

- Determine the best type of evacuation.
  - front
  - rear
  - side
  - roof or windows
- Secure the bus by:
  - placing the transmission in park
  - setting the parking brake
  - shutting off the engine
  - removing the ignition key
  - activating the warning lamps
- Notify your dispatcher of the emergency and get emergency help on the way.
- Order the evacuation.

- Evacuate the bus.
- Direct your student captains.
- Walk the bus to ensure all students are evacuated.
- Protect the scene by setting out your warning devices

## **DANGER ZONES AND USE OF MIRRORS**

The danger zone is anywhere outside your bus where children are in danger of being hit by another vehicle or by your bus. The danger zones extend as much as 30 feet from the front bumper, 10 feet on the left and right sides, and 10 feet behind the bus. (See figure below.)

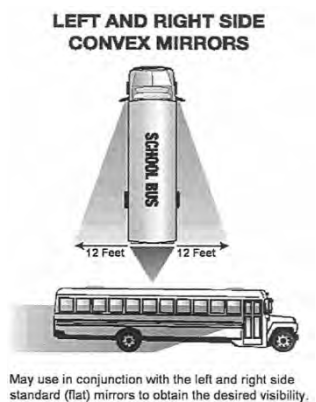
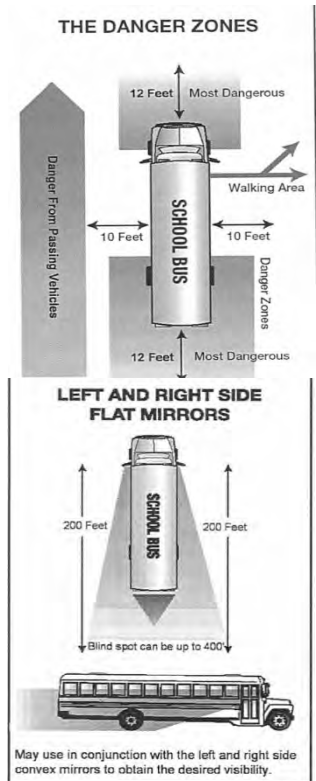
The proper mirror adjustment can significantly assist in safely managing the school bus danger zone. The following guidelines should be followed.

### ***Outside left and right flat mirrors***

- Mirrors should be adjusted so the driver can see 200 feet or 4 bus lengths behind the bus.
- Mirrors should be adjusted so the driver can see along the sides of the bus.
- Mirrors should be adjusted so the driver can see the rear tires touching the ground.

### ***Outside left and right convex mirrors***

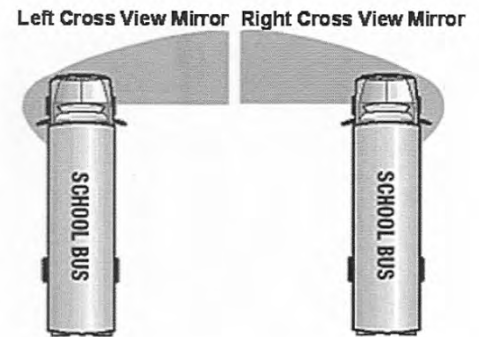
- Mirrors should be adjusted so the driver can see the entire side of the bus up to the mirror mounts.
- Mirrors should be adjusted so the driver can see the front of the rear tires touching the ground.
- Mirrors should be adjusted so the driver can see at least one traffic lane on both sides of the bus.





### ***Outside left and right side cross view mirrors***

- Mirrors should be adjusted so the driver can see the entire front of the bus from the front bumper at ground level to a point where direct vision is possible.
- Mirrors should be adjusted so the driver can see the right and left front tires touching the ground.
- Mirrors should be adjusted so that along with the convex and flat mirrors, the driver has a logical sequence to ensure that no object or child is not in any of the danger zones.



### ***Overhead inside rearview mirror***

- This mirror should be adjusted to see the top of the rear window in the top of the mirror.
- This mirror should be adjusted to see all students, including the heads of the students who are sitting directly behind you.

## **LOADING AND UNLOADING PROCEDURES**

Drivers must use extreme caution when approaching and entering a bus loading or unloading zone. More students are injured and killed in the loading and unloading zone than are injured riding the bus. The driver must follow these guidelines for loading and unloading students.

In addition, the school has established official routes and bus stops. Never change the location of the stop without written approval from the principal or administrator.

### ***Loading Procedures***

When approaching the loading zone, the driver should do the following.

- Approach cautiously at a slow rate of speed.
- Scan the area for pedestrians and traffic.
- Continuously check all mirrors.
- Activate the pre-warning amber flashing lights at least 500 feet before the designated stop.
- When slowing down for the stop, apply the brakes hard enough to light the brake lights.
- Signal for a right turn to show that the bus will move to the right.
- Check all mirrors to monitor the danger zone.
- Bring the bus to a full stop with the front of the bumper 10 feet away from the students at the designated stop.

- Place the transmission in park and set the parking brake.
- Check to ensure that all traffic has stopped and check your mirrors to make sure the danger zone is clear.
- Open the service door to activate the alternating red lamps and the stop sign.
- Recheck traffic and mirrors to ensure all traffic is stopped.
- Give the students an agreed upon hand signal to board the bus.
- If available, supplement the hand signal with the use of a P.A. system
- Count the students as they board the bus. If a student is missing ask the other students where the missing student is
- Have the students slowly board the bus and go directly to their seats.
- When students are properly seated, check traffic and close the front door.
- Check traffic using your mirrors, turn on left turn signal (if needed), and pull back into traffic.

### ***Unloading Procedures***

Unloading pupils poses additional hazards. The following procedures must be followed.

- Follow all procedures used in the loading procedures. In addition, the following steps should be considered.
- All pupils should remain seated until the bus has stopped.
- Check all mirrors.
- Allow enough time so a motorist can react to the red flashing lights.
- Count the number of students as they exit the bus.
- Inform the students they must walk at least 10 feet in front or away from the side of the bus so the driver can clearly see all students.

### ***If students must cross the roadway, the following steps should be included.***

- Have the students walk at least 10 feet in front of the bus at the right corner bumper of the bus.
- Re-check the roadway to ensure traffic conditions are safe.
- Give the students an agreed upon hand signal to move in front of the bus to the left bumper.
- Recheck traffic conditions to ensure it is safe to cross the street.
- Give the students an agreed upon hand signal to cross the street.
- If available, the driver may supplement the hand signal with the use of a P.A. system.
- If the driver loses track of a student, secure the bus and exit the bus to check to see if the student is in your danger zone. Never move the bus without checking around your bus.
- Recheck your mirrors and danger zones before proceeding to the next stop.

## **BACKING THE SCHOOL BUS**

Backing a school bus should be eliminated if at all possible. The bus should be backed only when there is no other way to move the vehicle. If it is necessary to back a bus, use the following guidelines.

- Activate the hazard lights before backing up.
- Have a responsible adult (if available) assist you. Use pre-determined hand signals.
- Signal for quiet on the bus.
- Continually check mirrors and rear windows.
- Back slowly and smoothly.
- If the driver loses sight of the assigned assistant, he or she should stop the bus.
- Never back into a traffic lane.
- If a student must be picked up or dropped off, perform the backing maneuver first.

## **RAILROAD CROSSINGS**

A school bus must stop at all railroad crossings. The following guidelines should be followed when crossing a railroad.

- Slow down and test your brakes.
- Activate your hazard /warning lamps approximately 200 feet before the crossing.
- Check traffic around you.
- Stop no closer than 15 feet or farther than 50 feet from the nearest rail.
- Place the bus in park.
- Turn off radios, fans, and noisy equipment. Silence the passengers.
- Shut off the master switch.
- Open the door and look and listen to see if a train is approaching. If there is more than one track, make sure a second train is not approaching.
- Cross the tracks only if it is safe to do so. Never shift the transmission when crossing the tracks.
- Turn off hazard warning lights and proceed.

## **POST TRIP INSPECTION**

When a route or activity trip is finished, the driver should complete a post-trip inspection. This inspection should include, at a minimum, the following:

- Check for sleeping students.
- Check for items left on the bus.
- Check for vandalism.

## **DRIVER/STUDENT RELATIONS**

Driver/student relations are a central part of the bus driver's job. It is the driver's responsibility to manage all students on the bus safely. Although it may be difficult at times, positive communication and relationships with the students will allow the driver to perform his/her driving duties in a much safer and efficient manner.

The following are some guidelines to assist in student behavior management.

- Be consistent
- Be firm
- Listen
- Be professional, but friendly
- Don't allow personal problems to affect your job performance

Other helpful items include:

- Make sure all students know and understand what behavior is expected.
- Make sure all students know what rules they must follow.
- Always follow district disciplinary policies.
- If possible, avoid one-on-one situations.



## Safety Best Practices

### Playground Safety

#### **INTRODUCTION**

Playground incidents account for a large percentage of all student injuries. Therefore, a constant, consistent, and aggressive playground safety effort must be incorporated into the school's campus daily activities. **Two websites contain very valuable playground safety information. They are:**

#### **CPSC Public Playground Safety Handbook**

<https://www.cpsc.gov/s3fs-public/325.pdf>

#### **Detailed Audit Guide**

[https://playworld.com/psi\\_files/web/dwnld/PlayworldAuditGuide.pdf](https://playworld.com/psi_files/web/dwnld/PlayworldAuditGuide.pdf)

#### **ADA Checklist**

<https://www.gametime.com/uploads/media/ADA-Checklist.pdf>

#### **ELEMENTS OF A PLAYGROUND SAFETY PROGRAM**

Numerous elements need to be incorporated into school playground safety efforts. All of these elements must be reviewed and incorporated into policies and daily activities. The following is a list of the crucial elements:

- Playground Supervision Guidelines
- Staff, Including Volunteers, Training
- Student Training
- Playground Maintenance
- Playground Inspection
- Accident Reporting and Investigation
- Playground Purchasing and Design

## ***Playground Supervision Guidelines***

Specific written guidelines should be written outlining proper supervision guidelines.

Such guidelines may include:

### **Keep Your Back to the Wall**

When students are scattered throughout the playground area, teachers are tempted to stand in the middle of the area and interact with only students around them. Half of the class/group is then out of sight or contact.

- Avoid “favorite” spots and gravitating to chat with others. To ensure that every student can be observed, move continuously throughout the area, staying around the perimeter of the space (“back to the wall”).

### **Scan Frequently**

- When paying attention to students who need help or need attention, the remainder of the group is unsupervised for that period. Allow for no more than 8 - 10 seconds of focused attention between scans of the area.

### **Move Around Quickly**

- Identify areas of highest risk and supervise these areas without losing contact with the rest of the group by moving toward, away from, then back to the higher hazard area.

### **Be Unpredictable**

- Avoid traveling on the same path and at the same pace. Keeping your “back to the wall” but avoid repeated circles around the area. Move in a manner that does not allow students to predict your movement.

### **Provide Across-Space Interactions**

- Even when teachers are moving continuously and scan the class/group, it is often a challenge to observe students across large distances. One way to decrease large distances is to provide across-space interaction. Students will know that although they are far away, their behaviors are still being monitored. An important consideration is the high-risk area and/or the risk-taking, aggressive child.

### **Be Aware of Unsafe or Disruptive Behavior**

- Be aware of safe practices and teach or reinforce these behaviors to students. Immediately stop any unsafe behavior.

### **Distribute Attention Equitably**

- Not only time focused on the less coordinated, shy, etc. student but equitable time for the skilled, adventuresome child.

In addition, all supervisors should be instructed to “supervise” and not gather and have their own conversation.

Finally, the following staff/student ratios should be utilized.

Kindergarten - 2nd grade	1 supervisor for every 25 students
3rd grade - 5th grade	1 supervisor for every 25-50 students
6th grade to 8th grade	1 supervisor for every 50-75 students

### ***Staff and Volunteer Training***

All playground supervisory staff, including volunteers, need to be trained in their responsibilities. In addition, this training needs to be fully documented. Some items which need to be covered in the training include:

- All written policies and guidelines should be reviewed.
- All staff should be trained on the proper use of the equipment.
- All staff should be aware of the age requirements or restrictions on each piece of equipment.
- The staff should be periodically checking the equipment for maintenance problems. If one is observed, that piece of equipment should not be used until the problem is remedied.
- The staff should be checking the ground cushioning material constantly to ensure that adequate cover is in place.

### ***Student Training***

All students should also be trained in playground safety. Some of the items to cover in this training include:

- All playground rules
- The proper use of the equipment
- Disciplinary procedures

### ***Playground Maintenance***

Playground maintenance is defined as...

Performing the needed repairs and necessary preventative actions to ensure a safe and properly functioning play structure and playground (example, lubricating drive mechanisms, sealing wood structures, replacing worn chains, swings or bolts, etc.).

All preventative maintenance must follow the manufacturer's or installer's recommendations. Preventative maintenance or repairs to the structures should be fully documented and maintained in a central file.

### ***Playground Inspections***

There are several elements of a playground inspection program. These include:

- Compliance Audits

A compliance audit of the playground is designed to determine if the current playground complies with nationally recognized standards. The CPSC (Consumer Products Safety Commission), ASTM (American Society for Testing and Materials), and ADA (Americans with Disabilities Act) all have written guidelines for playground safety and accessibility. Once these audits are completed and discrepancies are noted, then an action plan needs to be developed to achieve compliance. Many times this will involve the redesign and purchasing of play structures and playgrounds. Typically, once the compliance audit is completed and an action plan developed, your district will not need to complete another compliance audit until the standards change.

- Documented Hazard Identification Inspections

Periodic documented hazard inspections need to be completed on all play structures and playgrounds. These inspections are designed to identify hazards that could lead to injuries. The frequency of these documented inspections will depend upon the following items: the age of equipment, the age of the user, the environmental conditions, vandalism concerns, moving parts, etc. **It is recommended that at least weekly documented inspections be completed on all equipment.**

**A sample weekly inspection form is provided on the following pages.**

- Frequent Non-Documented Inspections

These are the inspections that a supervisory staff should be completing. Playgrounds are always changing; therefore, constant checks must be completed to help reduce the possibility of user injury.

### ***Playground Purchasing and Design***

The decision to design and purchase playground equipment is vital to the overall playground safety program. There are critical items to consider ensuring the safety of children and the playground. Some questions to consider include:

- *What is the purpose of the playground change?*
  - New School
  - Unsafe Equipment/Old Equipment
  - Adding to Existing Playground



- *What is the budget?*

Many times the budget dictates the type of playground to be designed. A good rule of thumb is to add at least one third the cost of the play structures for cushioning and landscaping. It is important to consider this added cost in the overall budget.

- *Where is the equipment going to be located?*

The following should be considered:

- A level location
- Water drainage issues
- Supervision issues
- Maintenance issues
- Away from utilities
- Close to Restrooms
- Available space
- Number and age of users

- *What type of equipment is to be installed?*

The following should be considered:

- Number of activities
- Age of users
- Play value
- Size constraints
- Regulatory guidelines (CPSC, ASTM)

- *How should a playground be designed?*

The school should consider utilizing the services of a professional playground designer and installer. The following should be considered:

- Separate active from passive equipment
- Popular heavily used equipment should be dispersed to avoid crowding in one area
- Allow for unobstructed sight lines without visual barriers to facilitate supervision.
- Locate moving equipment toward a corner edge of the play area
- Slides should have exits located in un-congested areas of the playground.
- Fall zones (CPSC, ASTM Guidelines)
- Separate equipment based on the age of users
  - Under 2
  - 2 to 5 years
  - 5 to 12 years
- Cushioning surfaces.

Provided on the next pages is some important information pertaining to cushioning surfaces.

# **PLAYGROUND EQUIPMENT SAFETY INSPECTION**

## **(WEEKLY INSPECTION REPORT)**

**DATE:** \_\_\_\_\_

**EQUIPMENT/COMPONENT NAME:** \_\_\_\_\_

<u>INSPECTION ITEMS</u>	<u>YES</u>	<u>NO</u>	<u>LOCATION</u>
1. Visible cracks, bending, warping, rusting, or breakage of any component.	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. Deformation of open hooks, shackles, rings, links, etc.	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. Worn swing hangers or chains.	<input type="checkbox"/>	<input type="checkbox"/>	_____
4. Ropes, cables frayed or worn.	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. Missing, damaged, or loose swing seats; heavy seats with sharp edges or corners; wood seats.	<input type="checkbox"/>	<input type="checkbox"/>	_____
6. Broken supports/anchors.	<input type="checkbox"/>	<input type="checkbox"/>	_____
7. Footings exposed, cracked, or loose in the ground.	<input type="checkbox"/>	<input type="checkbox"/>	_____
8. Accessible sharp edges or points.	<input type="checkbox"/>	<input type="checkbox"/>	_____
9. Exposed ends of tubing that should be covered by plugs or caps.	<input type="checkbox"/>	<input type="checkbox"/>	_____
10. Protruding bolt ends that do not have a smooth finished cap or cover.	<input type="checkbox"/>	<input type="checkbox"/>	_____
11. Loose bolts, nuts, etc.	<input type="checkbox"/>	<input type="checkbox"/>	_____
12. Splintered, cracked, or otherwise deteriorated wood.	<input type="checkbox"/>	<input type="checkbox"/>	_____
13. Lack of lubrication on moving parts.	<input type="checkbox"/>	<input type="checkbox"/>	_____
14. Worn bearings.	<input type="checkbox"/>	<input type="checkbox"/>	_____
15. Broken or missing rails, steps, rungs, or seats.	<input type="checkbox"/>	<input type="checkbox"/>	_____
16. Surfacing material worn or scattered (in landing pits, etc.) at least 8-12 inches in depth.	<input type="checkbox"/>	<input type="checkbox"/>	_____
17. Excess surfacing material outside barriers.	<input type="checkbox"/>	<input type="checkbox"/>	_____

<u>INSPECTION ITEMS</u>	<u>YES</u>	<u>NO</u>	<u>LOCATION</u>
18. Hard surfaces, especially under swings, slides, etc.	<input type="checkbox"/>	<input type="checkbox"/>	_____
19. Chipped or peeling paint.	<input type="checkbox"/>	<input type="checkbox"/>	_____
20. Vandalism (broken glass, trash, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	_____
21. Tripping hazards, such as roots, rocks, or other environmental obstacles.	<input type="checkbox"/>	<input type="checkbox"/>	_____
22. Poor drainage area.	<input type="checkbox"/>	<input type="checkbox"/>	_____
23. Vegetation controlled or removed.	<input type="checkbox"/>	<input type="checkbox"/>	_____
24. Fencing systems in good condition, no sharp or protruding ends.	<input type="checkbox"/>	<input type="checkbox"/>	_____
25. Signage in place, good condition.	<input type="checkbox"/>	<input type="checkbox"/>	_____
26. Landscaping timbers in good condition, nails, screws, rods exposed.	<input type="checkbox"/>	<input type="checkbox"/>	_____
27. Environmental issues, slides, platforms excessively hot from the sun.	<input type="checkbox"/>	<input type="checkbox"/>	_____

**ADDITIONAL ISSUES**

---



---

Inspection completed by: \_\_\_\_\_

Inspection reviewed by: \_\_\_\_\_

Corrective action taken by: (Name, item corrected P.O.'s pictures, etc.) \_\_\_\_\_

---



---



---



---

## **Comparison of Playground Surfacing Systems**

### **Loose Organic Materials - Wood Chips, Bark Mulch, Wood Fiber Mulch**

<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
Low initial Cost Easy to install Not attractive to pets Readily available Engineered wood fiber mulch may be accessible	Subject to environmental conditions Decomposes Subject to fungus/biologic growth Easily displaced Requires containment borders Requires good drainage Continuous maintenance

### **Loose Inorganic Materials - Sand, Gravel**

<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
Low initial Cost Easy to install Nonflammable Readily available	May be affected by environmental conditions Combines with dirt or may compact Subject to fungus/biologic growth Not accessible Abrasive to floors, skin Conceals animal excrement & debris Easily displaced Continuous maintenance Requires containment borders

### **Loose Synthetic Materials - Chopped Rubber, Plastics**

<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
Slow to decompose Not subject to fungus/biologic growth Non-abrasive Readily available	Higher initial cost Hides garbage & debris May be highly flammable Can contain contaminants from processing Not accessible Easily displaced Continuous maintenance Requires containment borders Requires good drainage (floats away)

### **Fixed Synthetic Materials**

#### **Rubber Tiles, Poured in Place Rubber/Urethane Combinations**

<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
Slow to decompose Not attractive to pets Optional colors available Minimum maintenance Generally accessible Not displaced May not require containment border Can be installed over concrete, asphalt, stone	High initial cost May be susceptible to frost damage May be highly flammable Requires skilled installation Subject to vandalism



## Safety Best Practices

### Pre-Schools

There are unique responsibilities in operating a preschool or early childhood facility. The school administrator must ensure a high level of professionalism, safety, and security. The following written policies should be reviewed and issued to each staff member/volunteer involved in childcare-related work.

#### PERSONNEL REQUIREMENTS

- All applicable state statutes regarding childcare and childcare facilities should be followed.
- Background screening requirements shall include but are not limited to contacting previous employers, character references, social traces, comprehensive criminal background screens, sexual predator screens, and motor vehicle record checks of the staff member or volunteer transport children and youth. In the event there are additional screens required, such as professional license checks, credit checks, etc., will be completed.
- The two-adult rule will be followed at all times.
- Volunteers will be under direct and constant supervision of paid employees.
- All staff and volunteers must complete the MUSIC: Sexual Misconduct – Staff on Student training.
- Staff and volunteers should be trained in CPR, first-aid, and bloodborne pathogens. In the event a facility has AED's on premise, the staff member or volunteer will receive training in the use of this equipment.

#### STAFF/PARTICIPANT RATIOS

The following staff ratio is based on primary responsibility for the direct supervision of children and applies at all times to the children in our care. Direct supervision means watching and directing children's activities within close proximity within the same room inside or within a designated outdoor play area.

- In mixed-age groups, child/staff ratio shall be determined by the youngest age child.
- When children with disabilities are in attendance, an adjustment in the child/staff ratio shall be made to ensure adequate care of all children.
- Children must be supervised at all times, inclusive of a bathroom, nap room, and playground. **NO child is to be left alone.**

Listed below are the minimum suggested child/staff ratios:

<u>Age of Children Ratio</u>			
Infants	1 / 4	3 yrs. of age	1 / 10
Toddlers 1 yr. of age	1 / 5	4 yrs. of age	1 / 20
2 yrs. of age	1 / 8	5 yrs. of age	1 / 20

## **PROGRAM DISCIPLINING GUIDELINES**

All staff and volunteers will maintain a discipline goal, which helps all children become self-directed and self-disciplined, enabling them to become good citizens. Staff members and volunteers need to be confident in following through with classroom and program rules using time out, re-direction, and natural consequences as methods of discipline. Always accentuate the positive. Use a firm voice (do not yell) when disciplining and always go directly to the child involved. Remember always to show respect for all children.

- A child may be disciplined by sitting out of the activity for a short period. (Guideline: 1 minute in time out per age of the child). The redirection of the child is always preferable.
- A child shall not be subjected to severe, humiliating, or frightening discipline.
- Discipline shall not be associated with food, rest, or toileting.
- A discipline record shall be kept on file in the office for any significant or recurring problem.
- If necessary, the problem shall be discussed with the parents.
- Any form of physical punishment is prohibited.
- If a child becomes a problem to the point of considering dismissing the child from a program, the following procedures shall be implemented:
  - Meet with the parent(s) and discuss the reason for considering dismissal.
  - Explore avenues for positive corrective action.
  - Consider a probation period for corrective action, as appropriate.
  - If a child is dismissed from a program, parent(s) shall be given written notification of the reason(s) for dismissal.
- Under no time is it appropriate for any child to possess or bring any weapon of any kind into a program facility.
  - Possession of a weapon shall be defined as knowingly, intentionally, deliberately, or inadvertently (without meaning to do it) bringing a weapon onto school property, program facilities, or any program sponsored activity.
  - Parents are to be immediately notified if this occurs, and the child placed under constant supervision from the site supervisor or designee.
  - Disciplinary action up to and including expulsion from a program may be taken.

## **OPERATIONS**

- Accident/ Unusual Incident
  - All accidents will be reported to the person in charge, and the appropriate documentation is completed immediately.
    - Contact Fire-Rescue, Police, or DCFS.
    - Contact parent or guardian.
    - Have all pertinent information ready for emergency personnel.
    - Contact the facility administrator.
    - Any suspicion of child abuse/neglect should be reported immediately to the Department of Children and Family Services. A report should be made describing the nature of the incident and filed for future reference.
- Release of Children
  - A child is to be discharged only to the child's parent(s), guardian, or to a person designated in writing by the parent with proper identification. A record should be maintained of children released to someone other than the parent/guardian.
  - In the event of separation or divorce, it will not be assumed that authorized release has been granted to both parties. Always check the child's file for court orders.
- Medications and Illness
  - Medication will not be self-administered or administered to children in our care at any time by staff or volunteers without administration approval.
  - Administrator/Nurse shall be responsible for records of any child self-administering medication or medication given by staff or volunteers.
  - Children who will be self-administering medication or who are having medication administered have documentation signed by the parent or guardian on file.
  - The medication must be in the original bottle with the labeled instructions. If the child is self-administering medication, the parent or guardian is responsible that the directives on this form are completely followed and understood by his/her child.
  - In the event a contagious illness arises among children or staff, management staff must be notified immediately, and they will determine when to notify parents.
  - Protective gloves will be accessible and used whenever blood or bodily fluid exposure is possible
  - Records should be kept on each child, including emergency phone numbers, current medical exams, immunizations, allergies, etc.
- Snacks / Lunches
  - Food supplied by the program will be properly stored in an airtight container or refrigerated.
  - The kitchen facilities will be clean, and garbage will be properly disposed of appropriately.
  - Protective food handling gloves will be used when handling or preparing food.
  - Water must be available at all times. Water fountains are to be inspected daily and are to be kept in proper working condition.

- Each child will participate at snack/lunchtime by passing out napkins, plates, cups, and utensils. Mealtime conversation between staff and children is always encouraged.
  - Where available, a commercial dishwasher should be used to sanitize dishes.
  - Children should be served nutritionally balanced meals and snacks.
  - Records should be kept, and staff informed of all children with food allergies.
- Playground Inspection
    - The playground is to be inspected before each use, and a final sweep of the playground will be made after each use.
    - An updated log will be kept for each time the playground is inspected.
    - The name of staff member/volunteer, time of inspection, and any issues will be documented and reported.
- Health/Safety
    - Staff should be properly trained in the Emergency Action Plan. Preferably monthly, documented drills should be completed for the following:
      - Fires
      - Severe weather
      - Tornado
      - Earthquake
      - Intruder
    - A posted evacuation plan should be provided in each daycare area.
    - Smoke detectors should be checked quarterly for proper operation.
    - Each infant should have his or her own crib and bedding. All bedding should be washed at least weekly or as needed. All toys should be kept clean and should be sanitized daily and preschool toys weekly. The health department recommends a 1:10 bleach/water solution.
    - The daycare area should be free from all asbestos building materials and/or lead-based paint. No smoking should be allowed in any childcare area.
    - The staff members should be required to wash their hands before and after each child's diaper is changed. Rubber gloves should be worn during diapering. Diapers should be immediately placed in a plastic bag for disposal. Bloodstained clothing and/or diapers should be immediately bagged and sealed. (See the Bloodborne Pathogens Plan for additional elements to reduce exposure to bloodborne pathogens such as HBV or HIV). All bathroom activities for kindergarten or younger children should be easily supervised. Open stalls provide some protection against child abuse charges.
- Sick/Injured Children
    - Any child who becomes ill should be immediately isolated from the group and removed from the center ASAP. The child's parent should be immediately notified of any sickness or injury. Rubber gloves should be worn to treat cuts, bloody noses, etc. Staff should report any exposure to blood directly to the center director. All medication should be stored in a safe and secure area.



## Childcare Risk Management Checklist

<b>Name of School:</b>	
<b>Contact Person:</b>	
<b>Date:</b>	
<b>Completed By:</b>	

	YES	NO	N/A	FOLLOW UP
<b>Administration</b>				
1. Is the childcare program licensed?				
2. When was it last inspected by licensing personnel?				
3. Do parents receive information about the childcare program prior to enrollment?				
4. Are all policies and procedures given to parents?				
5. Are parents permitted to visit the facility, without prior notice, during the hours their children are in care?				
6. Are written personnel policies available to staff at all times?				
7. Is the facility accessible to people with disabilities?				
8. Does the center accept all children without regard to race, religion, or physical capabilities?				
<b>Staff</b>				
1. Has a Child Abuse and Neglect Tracking System check been done on each staff member?				
2. Is this check on file and available?				
3. Does each staff member have a current (within 2 years) physical examination on file?				
4. Are references checked on staff and volunteers before they begin working with the children?				
5. Is the staff trained in first aid and infant/child CPR?				
6. Does the center have at least one staff member trained in first-aid on duty at all times?				
7. Are volunteers and student workers supervised at all times?				
8. Are staff members alone with children (one-on-one)? At least 2 members should be with the children?				
9. Is suspicion of child abuse/neglect reported immediately to Department of Children and Family Services or other proper authority?				
10. Are all staff members and volunteers current with MUSIC's Sexual Misconduct Staff on Student training?				
<b>Policies</b>				
1. Is a child discharged only to the child's parent(s), or guardian, or to a person designated in writing by the parent(s) or guardian with proper identification?				

	YES	NO	N/A	FOLLOW UP
2. Are parents required to bring child into their classroom and check in with staff?				
3. Are parents required to check out with staff before removing a child from care?				
4. Are records maintained if children are released to someone other than parent/guardian?				
5. Are permission slips required for field trips off the premises?				
6. Are records kept on each child including emergency phone numbers, current medical exam, immunization, and allergies?				
7. Are children subjected to corporal punishment, verbal abuse or deprived of food?				
8. Are each child's personal care and hygiene needs met?				
9. Is each child recognized as an individual?				
10. Is hand washing diligently practiced by staff & children?				
11. Are auto insurance records kept for all staff members and updated yearly (for emergency and routine transportation of children)?				
12. Are records kept on file on any "Incident" including minor injury?				
13. Do large amounts of cash remain on the premises?				
14. Are checks marked "For Deposit Only" if applicable?				
15. Are duplicate copies kept of accounts receivable, especially state or federal funding?				
16. Does a staff member stay with the child if parents are late picking up?				
<b>Programs</b>				
1. Are a variety of activities offered to the children?				
2. Are the states staff/child-licensing ratios maintained at all times?				
3. Is there a written planning program for children with special needs?				
4. Is there consistent communication with parents?				
Verbal				
Written				
Conference				
5. Is parent input welcomed and encouraged?				
<b>Kitchen / Meals</b>				
1. Is food prepared?				
Onsite				
Catered				
If catered, is Certificate of Insurance on file?				
If catered, what is the name of the organization?				

	YES	NO	N/A	FOLLOW UP
2. Are kitchen facilities clean, food properly stored, garbage disposed of promptly?				
3. Is a commercial dishwasher used to sanitize dishes?				
4. Are children served nutritionally balanced meals and snacks?				
Who serve food to the children?				
5. Are rubber gloves worn during food service?				
6. Are records kept and staff informed of children's food allergies?				
7. Where are the records kept?				
<b>Health &amp; Safety</b>				
1. When was the center last inspected by the fire marshal?				
2. Are documented drills conducted for the following?				DATE
Fire				
Tornado				
Earthquake				
Intruder				
3. Is there a posted evacuation plan that staff has been trained with?				
4. Are smoke detectors in working order?				
5. Does each infant have its own crib and bedding?				
6. Are cribs with wheels available for emergency evacuation?				
7. Are the center, equipment, and preschool toys kept clean at all times?				
Are Infant/Toddler toys cleaned daily?				
If no, how often?				
Are preschool toys clean weekly?				
If no, how often?				
How are they sanitized (Health Department. recommends 1:10 bleach/water solution)				
8. Are all children's personal belongings labeled (bottles, blankets, etc.)?				
9. Are all poisonous or harmful substances and medication out of reach of children?				
10. Are all heaters, electrical cords, etc. inaccessible to children?				
11. Are all animals certified by a veterinarian to be inoculated and free from disease?				
12. Has the facility been tested for asbestos and/or lead paint?				
13. Are hands washed before and after each child's diaper is changed?				
14. Are rubber gloves worn during diapering?				
15. Is bloodstained clothing and/or diapers bagged and sealed?				
16. Do bathroom stalls have doors? (Open stalls provide some protection against child abuse charges).				

	YES	NO	N/A	FOLLOW UP
17. Are bathroom activities easily supervised?				
18. Are all animals physically separated from children except during specific program activity?				
19. What measures are taken to protect staff from illness/injury?				
20. Is there exposure to risk from adjacent occupancies (other building tenants)?				
<b>Sick / Injured Children</b>				
1. Are rubber gloves worn to treat cuts, bloody noses, etc.?				
2. Is any child who becomes ill immediately isolated from the group and removed from the facility as soon as possible?				
3. Do teachers immediately report any exposure to blood to the director?				
4. What are the guidelines to determine if a child is ill?				
5. Is there an area where a child can be isolated until he/she is taken home?				
6. Is each classroom equipped with disposable mouth shields for administering mouth-to-mouth resuscitation?				
7. Do teachers carry CPR mouth shields for field trips and outdoor play?				
8. Do parents sign a release form for the administration of medication?				
9. Where is medication stored?				
10. Who dispenses medication to children?				
11. If a child is injured, what is the procedure for care?				
<b>Field Trips</b>				
1. Do children wear identification tags with center's name and telephone number? (Tag should not include child's name)				
2. Does staff transport children on field trips?				
3. Is a certificate of insurance obtained from Transportation Company?				
4. Are permission slips obtained with a hold harmless clause for each outing?				



## Safety Best Practices

### Science Lab Safety

#### INTRODUCTION

Safety should be FIRST in the minds of all science teachers at all grade levels. Every science teacher must be aware of the potential dangers that may be associated with science activities. Safety instruction must be an integral part of any science program.

Many potential hazards can be eliminated if the teacher has an organized and disciplined classroom. This is especially imperative when performing experiments.

*Additional valuable resources can be found at the following websites:*

**National Science Teachers Association**

<http://www.nsta.org/topics/safety>

**Consumer Products Safety Commission**

<http://www.cpsc.gov/PageFiles/122344/NIOSH2007107.pdf>

#### AREAS OF RESPONSIBILITY

<b>Science Department Heads Should:</b>
• maintain and coordinate the basic safety program for the science laboratories in the school
• train inexperienced teachers in laboratory safety and related department policies
• maintain an ongoing safety audit of the science rooms and storerooms
• maintain an up-to-date chemical inventory and establish safe storage practices
• inform in writing the appropriate building administrator of deficiencies
• generate an atmosphere of safety awareness within the science department
<b>Teachers Should:</b>
• carry out the basic laboratory safety programs as part of the curriculum
• instruct the students in laboratory safety and encourage a positive attitude toward laboratory safety awareness
• inform students of the purpose, procedures, and hazards of each experiment

<ul style="list-style-type: none"> <li>establish a set of laboratory safety rules that students are to follow during laboratory experiments</li> </ul>
<ul style="list-style-type: none"> <li>make parents aware of the laboratory safety program, its importance, and the student's responsibilities in the program</li> </ul>
<ul style="list-style-type: none"> <li>verify that the physical facilities meet all safety requirements and report deficiencies in writing to the appropriate building administrator</li> </ul>
<ul style="list-style-type: none"> <li>know the location and operation of all the safety equipment in the room</li> </ul>
<b>Students Should:</b>
<ul style="list-style-type: none"> <li>follow the procedures for each laboratory activity</li> </ul>
<ul style="list-style-type: none"> <li>wear suitable clothing and use personal protective devices</li> </ul>
<ul style="list-style-type: none"> <li>know and follow the laboratory safety rules</li> </ul>
<ul style="list-style-type: none"> <li>know the location of room exits and building evacuation routes</li> </ul>
<ul style="list-style-type: none"> <li>know the location and operation of all the safety equipment in the room</li> </ul>
<ul style="list-style-type: none"> <li>clean up the work area after each experiment</li> </ul>
<ul style="list-style-type: none"> <li>notify the teacher of any possible hazards</li> </ul>
<ul style="list-style-type: none"> <li>notify the teacher of any medical or physical limitations and use of contact lenses</li> </ul>
<b>Parents Should:</b>
<ul style="list-style-type: none"> <li>encourage responsibility and safety awareness in everyday life</li> </ul>
<ul style="list-style-type: none"> <li>become aware of the laboratory safety program and encourage a positive attitude toward the program</li> </ul>
<ul style="list-style-type: none"> <li>notify the school of any limiting conditions that could affect student performance in the laboratory</li> </ul>

### **SAFETY RULES AND CONTRACTS**

Teachers need to be constantly aware of the application of good safety practices and must present a consistent and positive attitude toward safe science procedures. To establish student responsibilities, the teacher should develop a uniform set of safety rules. These rules should be thoroughly explained to the students and a copy posted in each science classroom. Also, it is suggested that all students in grades six through eighth sign a science safety contract if there will be experiments within the curriculum. The following pages include sample safety rules and a sample of the safety contract.

## **Science Safety Rules**

**Never do any experiment without the permission and direct supervision of your teacher.**

**Always wear your safety goggles when your teacher tells you to do so. Never take them off during an activity.**

**Know the location of all safety equipment in or near your classroom.  
Never play with the safety equipment**

**Tell your teacher immediately if an accident occurs.**

**Tell your teacher immediately if a spill occurs.**

**Tell your teacher immediately about broken cracked or chipped glassware.**

**Never touch or pick up broken glass.**

**Never taste anything during a laboratory activity.**

**Clean up your work area upon completion of your activity.**

**Wash your hands with soap and water upon completion of the activity.**

# Science Safety Contract

I will

- follow all of the teacher's written and oral directions;
- perform only experiments authorized by the teacher, and will not begin lab work without permission;
- NOT taste anything or put anything in my mouth;
- remain at my assigned station and not visit with other groups;
- stand when doing laboratory work. (Standing avoids having chemicals spilled in laps.) I will not sit or lean on tables at any time;
- wear proper protection for eyes, face, hair, hands, and body as needed during laboratory activities, and will wear safety goggles whenever handling glass, heat, and/or chemicals;
- immediately alert the teacher if any chemical is spilled on my clothing or skin, and wash the area with large quantities of water;
- alert the teacher and wipe up any spill on the table or floor, including water spills;
- not put chemicals back into stock bottles, and will always replace caps on chemical bottles;
- never leave a lighted burner unattended, never reach over an exposed flame, and will NOT play with matches;
- always hold a test tube tilted away from myself or others when heating it;
- never pick up a heated object with unprotected hands, set anything hot on a bare table, or leave hot pieces of equipment on the tables without warning others of their presence;
- immediately alert the teacher when glass is broken so that it can be picked up and put in a proper container;
- stop work at the teacher's five-minute warning signal;
- keep the laboratory clean at all times, and make sure my lab station and all equipment are cleaned and in order before leaving class;
- never remove any materials from the lab without permission;
- never handle electrical equipment or extension cords with wet hands;



- report all lab injuries - burns, cuts, scratches, chemical contacts, etc. - to the teacher; and
- learn the location and proper use of the emergency eyewash station, fire blanket, and fire extinguisher.

(School name) expects high standards of safety and student personal responsibility. These safety rules are intended to maintain those standards and to provide a safe and secure learning environment for all students. Failure to comply with these regulations will result in serious disciplinary consequences and suspension from class.

Signed copies of this safety contract must be returned to the teacher before a student will be permitted to begin lab work.

~ ~ ~

I have read the above safety contract and reviewed it with my child. I agree to support the enforcement of the rules for the safety of my child and my child's classmates.

\_\_\_\_\_  
Parent(s)/Guardian(s)

I have read and understand the safety contract. I recognize my responsibility and agree to abide by the above rules for my own safety and for the safety of my classmates.

\_\_\_\_\_  
Student

## **GENERAL SAFETY TECHNIQUES AND TIPS**

### ***Personal Protective Equipment***

The use of proper personal protective equipment is essential. At a minimum, all students and staff who participate in lab activities must have:

- Eye Protection (The eye protection must meet the **ANSI Z87 Standards**)
- Hand Protection

*It is also essential to clean, sanitize, and disinfect all Personal Protective Equipment after use. Eye protection should not be shared unless properly sanitized.*

### ***Ventilation***

Proper ventilation is vital. This may be as simple as opening up a window or involve fume hoods.

### ***Emergency Eye Wash***

There must be access to emergency eyewash systems. The ideal emergency eyewash will be pre plumed and provide continuous flow. However, if this is unavailable, portable eyewash stations are acceptable.

### ***Fire Safety and Heat Sources***

Fire and heat sources are common to the science room. It is important to follow the following guidelines:

- It is important to have the proper type of fire extinguishers for the hazards present. In most labs, a multipurpose ABC type of extinguishers is recommended.
- Flammable liquid storage cabinets should be used to store all flammable liquids.
- Never use alcohol burners.
- Teachers should never leave the room when working with an open flame or other heat sources.
- Hot plates or other heat-producing devices should be properly secured after use.

### ***Spill Kits***

Each laboratory should have a spill control kit appropriate for the types and amounts of chemicals present in the classroom. Always refer to the SDS sheet for proper clean-up procedures.

## **SAFETY WITH PLANTS**

Over 700 species of plants are known to cause death or illness. Always be aware of the plants being introduced into your classroom or outdoor classroom.

- Always wash hands after working with seeds or plants.
- Never allow seeds to be put into the mouth.

- Those with cuts or sores on their hands should not handle seeds.
- Be particularly alert to plant safety on field trips.
- Signs of plant poisoning include headache, nausea, dizziness, vomiting, skin eruption, itching, or other irritation.

## **SAFETY WITH ANIMALS**

Before introducing animals into the classroom, a safety lesson should be given to teach the students how to care for and treat the animal properly.

- All handling of animals should be done voluntarily and under the supervision of the teacher.
- Students should not be allowed to mishandle or treat the animal.
- Animals caught in the wild should not be brought into the classroom. For example, turtles are carriers of salmonella, and many wild animals are subject to rabies.
- On field trips, be especially aware of all animals and the possibility of scratches and bites. Also, be mindful of insects and ticks.
- Only animals purchased for dissection should be used for this purpose. Any animal preserved in formaldehyde should not be used.

## **CHEMICALS**

The safe storage, handling, and use of chemicals are some of the major issues confronting science teachers. In some fashion, almost all chemicals have toxic properties. It is the teacher's responsibility to ensure a safe classroom and lab free from significant chemical hazards.

Chemical safety in science rooms can be achieved with proper management. Structured chemical handling and use guidelines need to be developed and enforced at all times. *Even standard household chemicals can present hazards.*

Chemical use in schools should follow the NIOSH guidelines for recommended chemicals in classrooms science labs.

### ***Chemical Inventory***

A complete chemical inventory should be maintained for all chemicals located in the science room. This inventory should include the chemical name, date of purchase, chemical supplier, and other pertinent information. This chemical inventory list should be maintained current at all times. Chemicals that are expired or may be an explosive hazard should be removed from the school and disposed of properly.

## **SDS**

Safety Data Sheets are a very complete source of safety information on chemicals. The SDS will provide information on a chemical's physical properties, health hazards, spill procedures, handling procedures - including personal protective equipment necessary, reactivity, first aid, and spill and disposal procedures. A complete set of all SDS sheets should be located in the lab for all chemicals included in the chemical inventory list.

***The following website contains many SDS sheets:***

<https://www.esciencelabs.com/educators/msds>

## **Container Labeling**

All chemical containers should be labeled. The label should, at a minimum, include the chemical name. However, newer labels should contain the chemical name, manufacturer, expiration date information, health warning hazards, and safe handling information.

## **Chemical Storage**

All chemicals should be properly stored in approved cabinets, closets, or storage shelves. Chemicals should be stored in compatible chemical groups and locked storage areas.

Listed below are some chemical storage guidelines.

- Chemicals should be stored in storage closets with lockable doors and adequate ventilation.
- Chemicals should not be stored in alphabetical order, but rather in compatible family groups. Acids should be stored in acid cabinets, and flammables should be stored in UL listed flammable liquids cabinets.
- The storage shelves should not contain metal and should have a lip on them.

## **Chemical Handling**

The transportation and handling of chemicals requires careful attention. Only trained staff should receive chemicals from the storage closet. In addition, the following guidelines should be followed.

- Use proper personal protective equipment such as eye protection, gloves, aprons, respirators, etc.
- Transport only the smallest amount of chemical needed.
- Transport the chemicals on a sturdy cart or other approved method.
- Ensure that all students are wearing proper personal protective equipment.
- Try to minimize chemical handling by students.

***Chemical Disposal***

All chemical disposal should be completed following manufacturers' recommendations, state and local laws, and done safely. An important way to reduce chemical disposal concerns and cost is to consider performing microscale chemistry. Also, consider neutralization techniques and recycling techniques.

## **Excessive Risk Chemicals**

### **Risk Exceeds Educational Utility**

Chemical Name	Hazards
Acetic Anhydride	Explosive potential, corrosive
Acetyl Chloride	Corrosive, dangerous fire risk, reacts violently with water and alcohol
Acrylamide	Toxic by absorption, suspected carcinogen
Acrylonitrile	Flammable, poison
Adipoyl Chloride	Corrosive; absorbs through skin, lachrymator
Aluminum Chloride, anhydrous	Water reactive, corrosive
Ammonia, gas	Corrosive lachrymator
Ammonium Bifluoride	Reacts with water, forms Hydrofluoric Acid
Ammonium Bichromate	May explode on contact with organics, suspected carcinogen
Ammonium Chromate	Oxidizer, poison; may explode when heated
Ammonium Dichromate	Reactive, may cause fire and explosion
Ammonium Perchlorate	Explosive; highly reactive
Ammonium Sulfide	Poison, Corrosive, Reacts with Water & Acids
Aniline	Carcinogen, toxic, absorbs through skin
Aniline Hydrochloride	Poison
Antimony Oxide	Health and contact hazard
Antimony Powder	Flammable as dust, health hazard
Antimony Trichloride	Corrosive; emits hydrogen chloride gas if moistened
Arsenic compounds	Poison, carcinogen
Asbestos, Friable	Inhalation Health Hazard, Carcinogen
Azide Compounds	Explosive in contact with metals, extremely reactive, highly toxic
Barium Chromate	Poison
Benzene	Flammable, carcinogen
Benzoyl Peroxide	Organic peroxide, flammable, oxidizer
Beryllium and its compounds	Poison. Dust is P-listed & highly toxic. Carcinogen
Bromine	Corrosive, oxidizer, volatile liquid
Cadmium compounds	Toxic heavy metal, carcinogen
Calcium Fluoride (Fluorspar)	Teratogen. Emits toxic fumes when heated
Carbon Disulfide	Flammable, toxic, P-Listed Extremely Hazardous
Carbon Tetrachloride	Toxic, carcinogen
Chloral Hydrate	Hypnotic drug. Controlled substance
Chlorine	Poison gas. Corrosive.
Chlorobenzene	Explosive limits 1.8% to 9.6%, toxic inhalation and contact hazard
Chloroform	Carcinogen. If old forms deadly Phosgene gas.
Chlorosulfonic Acid	Toxic a/k/a Sulfuric Chlorohydrin
Chromic Acid	Strong oxidizer. Poison
Collodion	Flammable. Explosive when dry. Nitrocellulose compound.
Cuprous Cyanide	Toxic
Cyanogen Bromide	Poison, strong irritant to skin and eyes
Cyclohexene	Flammable, peroxide former
Dichlorobenzene	Toxic
Dichloroethane	Flammable. Toxic.
Dinitro Phenol	Explosive. "Bomb Squad"
Dinitrophenyl Hydrazine	Severe explosion and fire risk
Dioxane	Flammable, peroxide former
Ether, Anhydrous	Flammable, peroxide former

Chemical Name	Hazards
Ether, Ethyl	Flammable, peroxide former
Ether, Isopropyl	Flammable, peroxide former
Ethyl Ether	Flammable, peroxide former
Ethylene Dichloride	Toxic, contact hazard, dangerous fire risk, explosive in air 6-16%
Ethyl Nitrate	Explosive. "Bomb Squad"
Ethyleneimine	Flammable. Toxic. P-listed
Ferrous Sulfide	Spontaneously ignites with air if wet
Formaldehyde (Formalin)	Toxic, carcinogen, sensitizer
Gunpowder	Explosive
Hydrazine	Flammable Absorbs thru skin Carcinogen. Corrosive
Hydriodic Acid	Corrosive. Toxic
Hydrobromic Acid	Corrosive. Poison
Hydrofluoric Acid	Corrosive, poisonous
Hydrogen	Flammable
Hydrogen Sulfide, gas	Poison. Stench
Immersion Oil (old)	May contain 10-30% PCBs such as Arochlor 1260.
Isopropyl Ether	Flammable, Highest-risk peroxide former
Lithium Aluminum Hydride	Flammable. Reacts with air, water and organics
Lithium Metal	Reacts with water, nitrogen in air
Mercaptoethanol	Flammable. Corrosive. Intense stench
Mercury compounds	Poisonous heavy metal
Mercury, liquid	Toxic heavy metal, carcinogen
Methylene Chloride	Toxic, carcinogen, narcotic
Methyl Ethyl Ketone	Flammable, dangerous fire risk, toxic
Methyl Iodide (Iodomethane)	May be a narcotic; Carcinogen. Lachrymator.
Methyl Isocyanate	Flammable, dangerous fire risk, toxic
Methyl Isopropyl Ketone	Toxic
Methyl Methacrylate	Flammable. Vapor causes explosive mix with air
Naphthylamine, a-	Combustible, Toxic. Carcinogen.
Nickel Oxide	Flammable as dust. Toxic, carcinogen
Nicotine	Poison. P-Listed Extremely Hazardous
Nitrotriacetic Acid	Corrosive
Nitrobenzene	Highly toxic
Nitrocellulose	Flammable. Explosive. Call ETSI
Nitrogen Triiodide	Explosive. "Bomb Squad"
Nitroglycerin	Explosive. "Bomb Squad"
Osmium Tetroxide (Osmic Acid)	Highly toxic. P-Listed Extremely Hazardous.
Pentachlorophenol	Extremely toxic
Perchloric Acid	Powerful oxidizer, reactive
Phosphorus Pentasulfide	Water Reactive. Toxic. Incompatible with Air & Moisture
Phosphorus Pentoxide	Oxidizer, toxic
Phosphorus, Red	Flammable solid
Phosphorus, Yellow or White	Air reactive. Poison.
Picric Acid, Trinitrophenol	Explosive when dry
Potassium Cyanide	Poison. P-Listed Extremely Hazardous
Potassium Perchlorate	Powerful oxidizer. Reactivity hazard
Potassium Sulfide	Flammable. May ignite spontaneously.
Potassium, metal	Water reactive, peroxide former (orange fog/crystals)
Pyridine	Flammable. Toxic. Vapor forms explosive mix with air
Selenium	Toxic.
Silver Oxide	Poison
Silver Cyanide	Extremely toxic

Chemical Name	Hazards
Sodium metal lump	Water reactive, ignites spontaneously in dry hot air, corrosive
Sodium Arsenate	Toxic. Carcinogen.
Sodium Arsenite	Toxic. Carcinogen.
Sodium Azide	Poison, explosive reaction with metals. P-Listed Extremely Hazardous
Sodium Borohydride	Flammable Solid. Water Reactive
Sodium Cyanide	Poison. P-Listed Extremely Hazardous
Sodium Fluoride (Bifluoride)	Highly toxic by ingestion or inhalation; strong skin irritation
Sodium Fluoroacetate	Tox-X Deadly poison!
Sodium Peroxide	Water reactive; may cause fire & explosion
Sodium Sulfide	Fire and explosion risk
Strontium	Flammable. Store under naphtha. Reacts with water.
Testosterone HCl	Controlled substance
Tetrahydrofuran	Flammable, peroxide former
Thioacetamide	Toxic. Carcinogen. Combustible.
Thionyl Chloride	Corrosive.
Thiourea	Carcinogen
Titanium Trichloride	Flammable. Fire risk.
Triethylamine	Flammable. Toxic. Irritant.
Trinitrobenzene	Explosive. "Bomb Squad"
Trinitrophenol	Explosive. "Bomb Squad"
Trinitrotoluene	Explosive. "Bomb Squad"
Uranium/Uranyl Compounds	Radioactive



## Chemistry Laboratories and Laboratory Storerooms Checklist

		YES	NO
1.	Is the amount of glassware and chemicals kept to a minimum in work areas?		
	Are safety bottles used for storage of chemicals? (plastic coated)		
2.	Is the housekeeping satisfactory?		
	Are classrooms and storerooms regularly inventoried, and no longer needed items properly disposed of?		
3.	Is all electrical equipment properly wired?		
	Do any cords have splices, cracked or frayed insulation?		
	Are outlets properly grounded?		
	Are GFCI outlets installed near sink and wet areas?		
4.	Is a fire blanket mounted on the wall?		
	Inspected yearly?		
5.	Is eye protection available and worn when needed?		
	Is all necessary PPE available?		
6.	Are emergency eyewash stations and emergency showers available and inspected/tested monthly? Eyewash stations must have the capacity to flush at least 15 minutes		
7.	Are spill kits available?		
8.	Are ladders available in storage room if needed?		
	Safety stool?		
9.	Are heavy items stored on lower shelves?		
	Are shelf brackets in good condition?		
	Do shelves have center supports?		
	Front edge "lips"?		
10.	Are chemicals kept at a sufficient operating level, i.e. not overstocking?		
	Are they inventoried at least annually, oldest chemicals used first?		
11.	Are chemicals clearly labeled?		
	Labels replaced immediately when damaged or missing?		
12.	Are chemicals in compatible family groups?		
13.	Are flammable liquid storage cabinets clearly labeled as to their contents, and ventilated to the outside?		
14.	Are large containers of acids stored together on bottom shelves or in an acid storage cabinet?		
	Are shelves and brackets inspected regularly and repaired as needed?		

		YES	NO
15.	Are areas available for working (burning, heating, using hot plate, mixing, etc.) other than in the stock rooms? (Stock rooms should be used for storage only.)		
	Are fume hoods available for teacher and student use?		
	Sufficient size and number for class?		
16.	Are shelves fastened to the wall?		
	Do they have center supports to prevent sagging?		
17.	Are safety edges installed on the front edges of the shelves to prevent bottles from falling off?		
18.	Is the ventilation adequate for work performed?		
	Is an additional ventilation system installed in the classroom and storage room to exhaust fumes?		
	Will they re-enter the building?		
19.	Is access to the area limited to authorized personnel? Is a special key or lock set used to restrict access?		
20.	Is the local fire department aware of this area with the types and amounts of chemicals stored?		
21.	Are building custodians and maintenance personnel advised as to potential dangers, and cleanup procedures (i.e. what <u>not</u> to mop up)?		
22.	Is there a master gas shutoff valve for the entire laboratory?		
	Does it work?		
23.	Is there a master electricity shutoff control for the entire laboratory (except lighting)?		
24.	Is there a master water/demineralizer shutoff control for the laboratory?		
25.	Are fire extinguishers visible, easily accessible?		
	Are they multi-class (i.e. ABC), and are instructors/staff trained in their use?		
26.	Is there a glassware drying rack available?		
	Are procedures established for handling/disposing of broken glass?		
27.	Are procedures established for the proper, safe, and legal disposal of used or unwanted chemicals and equipment through the lab?		
28.	Are carts used for the transporting of chemicals and equipment through the lab?		
29.	Are vacuum pumps equipped with guards to prevent contact with the drive belt and pulley?		
30.	Are high pressure gas cylinders properly stored and restrained?		



## **Safety Best Practices**

### **Industrial Technology/VoAg**

#### **INTRODUCTION**

Industrial technology shops/labs are inherently an area that requires constant attention from a safety and loss control standpoint. There are many pieces of equipment, continuous activity, and continually changing conditions that must be managed in a safe manner. Even as shops/labs continue to change into “clean labs,” there are many hazards present. In traditional labs, there are many issues such as guarding, housekeeping, electrical, etc. that needs to be addressed. However, in the “clean labs/shops,” there are not only traditional issues but also high-pressure hydraulics, lasers, robotics, etc. to consider. Every instructor and student has direct responsibility for the safety efforts in these shops/labs.

#### **ELEMENTS OF AN INDUSTRIAL TECHNOLOGY SAFETY PROGRAM**

There are many items and elements to consider in shop safety efforts. It is the responsibility of the instructor to ensure all areas are addressed and formal safety activities are implemented. Listed below are some general guidelines which should be considered.

- Instructor responsibilities
- Student responsibilities
- Written guidelines
- Physical conditions

#### **Instructor Responsibilities**

The instructor has the primary responsibility for the safety of the students. The instructor should:

- Demonstrate by correct example.
- Provide adequate supervision at all times. Avoid leaving a class unattended. Make necessary arrangements in advance, such as having a qualified person responsible for the class and shutting off power to machinery if it is necessary to leave the room.
- Keep current on accepted safe practices and document clock hours, workshops, and classes attended by the instructor.

- Develop a safety education program as an integral part of the course of instruction. Enforce procedures governing the program with a grading system sensitive to safety violations, and evaluate results at the end.
- Give adequate instruction in the safe use of all machines, tools, and equipment before any operation. Be sure that the instructions are followed. Document attendance, test scores, and instructor sign-off as evidence of providing safety instructions.
- Ensure that appropriate guards are provided and used.
- Ensure that personal protective equipment and clothing is available for all hazards. Ensure that regular personal clothing is appropriate for the particular situation.
- Formally inspect the facility once a month to discover needed repairs and corrections. Remain aware of conditions at all times. Report to maintenance and administration in writing items to be repaired and keep copies. Tag out and lock out machines until repairs are made.
- Label and store toxic and flammable materials properly. Provide instruction on proper use and disposal.
- Develop detailed instructions for substitutes in the event of the instructor's absence. Include names of students at risk and contacts for problems.
- Involve parents in the safety program by sending safety tests home and issuing extra credit for tests that are signed by parents and returned.
- Post machine operation rules and safety procedures near areas of operation.
- Approve student work projects, including production methods, before student proceeds.

### **Student Responsibilities**

The attitudes and activities of students play an integral role in the safety program. All students must take responsibility for their behavior and work station. The students should:

- Read, understand, and observe all safety rules and signage.
- Never operate any power equipment without proper instruction and consent of the instructor.
- Read, understand, and observe the safety contract. Then sign it.

### **Written guidelines**

Formal written guidelines should be developed for all lab/shop activities. These written guidelines should provide references and an outline of all safety efforts within the industrial technology lab/shop. Specifically, the following items should be written:

- Shop Safety Rules
- Student Safety Contracts
- Equipment Use and Authorization Forms

## **SAMPLE**

### **Shop Safety Rules**

- Eye protection and other necessary personal protective equipment should be worn at all times when in the shop.
- Machine and equipment operating instructions should be observed at all times.
- No equipment should be operated without proper guarding in place.
- Horseplay is not allowed.
- Report all unsafe conditions to your instructor immediately.
- You are responsible for housekeeping at your work station.
- There should be no unauthorized work on projects or use of equipment.
- Eating or drinking is not allowed in the shop/lab.

# **SAMPLE**

## **Industrial Technology Shop/Lab Safety Contract**

The following rules will be continuously enforced in the industrial technology shop/lab.

1. Proper personal protective equipment will be worn for the activity.
2. Horseplay and practical jokes are prohibited.
3. No machinery or equipment will be used without proper instruction, permission, and supervision.
4. All posted safety rules and guidelines will be followed.

I have read, thoroughly understand, and agree to abide by these and all posted shop/lab safety rules.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

### **To Parent or Guardian:**

During this course, your son or daughter will be working in the lab/shop regularly. For personal safety and the safety of other students in the class, it is vital that the above rules and all posted rules be followed in all work. Failure to adhere to these rules may result in your son or daughter being removed from the lab/shop.

I have read, thoroughly understand, and agree that my son/daughter shall abide by these safety rules and other written and verbal instructions given in class.

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date

## **SAMPLE**

### **Personal Inventory of Safety Demonstration and Proper Orientation Of Power Equipment in the Lab/Shop**

I have been shown the safety and proper operation of the power tools below that have my signature, the instructor's signature, my test grade, and my qualification date. I fully understand how to work safely with the indicated tools below:

Table Saw:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Jointer:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Planer:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Router:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Jig Saw:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Table Drill:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Hand Drill:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Belt Sander:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Tool Post Grinder:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Table Belt Sander:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Band Saw:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Doweling Machine:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Hand Grinder:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Hand Power Circle Saw:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Radial Arm Saw:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Panel Saw:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Spindle Sander:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

Lathe:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_

12" Disc Sander:

Test Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Instructor: \_\_\_\_\_ Student: \_\_\_\_\_



## **Physical Conditions**

A safe environment is an essential part of the industrial technology program. Hazards and corrections should be discovered through regular and frequent formal and informal inspections by principals, safety officers, risk control coordinators, instructors, and students.

A monthly report is suggested as a means of maintaining a safe shop. The instructor should retain file copies of the report. Any machine that is not safe to use should be locked out and tagged out and a statement to that effect made in the report. Instructors should not permit the use of any unsafe equipment.

If health hazards were not considered in the original design of the facility, it might be necessary to initiate studies to determine the hazards of heat, noise, lighting, storage, and fume conditions.

A Sample Safety Inspection Form is attached.

# Industrial Technology Shop/Lab and Storerooms Checklist

		YES	NO
1.	Is the housekeeping satisfactory?		
	Are classrooms and storerooms regularly inventoried, and no longer needed items properly disposed of?		
2.	Is all electrical equipment properly wired?		
	Do any cords have splices, cracked or frayed insulation?		
	Are outlets properly grounded?		
	Are G.F.I. outlets installed near sinks and wet areas?		
3.	Is eye protection and all necessary personal protective equipment available and worn when needed?		
	Is there a variety of types?		
4.	Are ladders available in storage room if needed?		
	Safety stool?		
5.	Are heavy items stored on lower shelves?		
	Are shelf brackets in good condition?		
	Do shelves have center supports?		
	Front edge "lips"?		
6.	Are chemicals kept at a sufficient operating level, i.e. not overstocking?		
	Are they inventoried at least annually, oldest chemicals used first?		
7.	Are chemicals clearly labeled?		
	Labels replaced immediately when damaged or missing?		
8.	Are flammable liquid storage cabinets clearly labeled as to their contents, and ventilated to the outside?		
9.	Are shelves fastened to the wall?		
	Do they have center supports to prevent sagging?		
10.	Is the ventilation adequate for work performed?		
	Is an additional ventilation system installed in the classroom and storage room to exhaust fumes?		
	Will they re-enter the building?		

# Industrial Technology Shop/Lab and Storerooms Checklist

		YES	NO
11.	Is the local fire department aware of this area with the types and amounts of chemicals stored?		
12.	Is a telephone or other signaling device readily available in each area in the event of an emergency?		
13.	Are emergency procedures established to obtain fire and/or ambulance assistance?		
14.	Is there a master electricity shutoff control for the entire lab/shop (except lighting)?		
15.	Are fire extinguishers visible, easily accessible? Are they multi-class (i.e. ABC), and are instructors/staff trained in their use?		
16.	Are procedures established for the proper, safe, and legal disposal of used or unwanted chemicals and equipment through the lab?		
17.	Equipment secured to floor?		
18.	Adequate operating spaces is provided/safety zones marked?		
19.	Machine guards provided/used?		
20.	All electrical equipment double insulated or grounded?		
21.	Electrical cords/plugs in good repair?		
22.	Electrical panels accessible?		
23.	Dust collection systems provided/maintained?		
24.	Housekeeping is adequate?		
25.	Non-asbestos gloves, aprons, leggings where appropriate?		
26.	Shop hose air pressure reduced to 30 pounds or less?		
27.	Posted safety rules?		
28.	Use of liquid petroleum gas cylinders is prohibited?		
29.	Smoke/heat detectors provided/functioning?		
30.	Electrical equipment provided with explosion-proof fixtures?		
31.	Windows or blow-out/pressure relief panels provided?		
32.	Housekeeping is adequate?		
33.	Spray booth sprinkler heads protected?		



## **Safety Best Practices**

### **Bleacher Safety**

In response to injuries and deaths from bleachers, the U.S. Consumer products safety Commission has issued “Guidelines for Retrofitting Bleachers.”

An assessment of all bleacher systems within District schools should be completed; this action will help to promote greater safety within facilities. These assessments should review bleachers for structural stability and items listed below.

There are three types of bleachers common to schools: portable, permanent, and telescopic. Portable units are smaller, roughly 20 feet in width, and four to five rows deep. They can be moved, for example, from the soccer field in the fall to the softball field in the spring. Permanent bleachers are the classic, large structures on the side of a football or baseball field. Telescopic bleachers typically are used in a gymnasium and can be closed to utilize the entire gym. Slips, trips, and falls can occur while using any of the above bleacher systems. Listed below are the common hazards associated with falls and collapse, and some measures that can be taken to prevent accidents and injuries.

#### **Fall Hazards**

Most injuries are associated with one of the following causes:

- Missing or defective guardrails: on the sides, the back, or (if elevated) the front
- Large openings between components: typically between the seating and the guardrails, or between seats and floorboards that are big enough for a child or adult to pass-through
- Excessive guardrail space: e.g., between the bottom rail and the mid-rail
- Unprotected spaces between guardrails: open areas neither fenced nor provided with vertical rails
- Access steps to seating: missing or no handrails for support
- Structural collapse or tipping of the structure: failure to properly install or anchor system
- Incomplete work: hazard areas not protected or secured between work shifts

#### ***Recommendations for Preventing Falls***

The following are some of the recommendations that have been made by the CPSC and various authorities on safety or found in nationally recognized building codes.

- Guardrails should be present on the backs and portions of the open ends of bleachers where the footboard, seaboard, or aisle is 30 inches or more above the floor or ground below. Bleachers with the top row nominally 30 inches above the ground may be exempt from this recommendation.
- The top surface of the guardrail should be at least 42 inches above the leading edge of the footboard, seaboard, or aisle, whichever is adjacent.
- When bleachers are used adjacent to a wall that is at least as high as the recommended guardrail height, a guardrail is not needed if a 4-inch diameter sphere fails to pass between the bleachers and the wall.
- Any opening between components of the guardrail or under the guardrail should prevent the passage of a 4-inch sphere.
- Any opening between the components in the seating, such as between the footboard, seaboard, and riser, should prevent the passage of a 4-inch diameter sphere where the footboard is 30 inches or more above the ground and where the opening would permit a fall of 30 inches or more.
- The preferable guardrail design uses only vertical members as in-fill between the top and bottom rails. If there are openings in the in-fill that could provide a foothold for climbing, the widest measurement of the opening where the foot could rest should be limited to a maximum of 1.75 inches. Opening patterns that provide a ladder effect should be avoided. If a chain link fence is used on guardrails, it should have a mesh size of 1.25 inches or less.
- Aisles, handrails, non-skid surfaces, and other items that assist in access and egress on the bleachers should be incorporated into any retrofit project where feasible.
- The option of replacing bleachers instead of retrofitting should be considered.
- Materials and methods used for retrofitting should prevent the introduction of new hazards, such as bleacher tip over, bleacher collapse, and contact and tripping hazards.
- Bleachers should be thoroughly inspected at least quarterly by trained personnel and problems corrected immediately. Records of these inspections should be maintained.
- A licensed professional engineer, registered architect, or company that is qualified to provide bleacher products or services, should inspect the bleachers at least every two years and provide written certification at such time that the bleachers are fit for use.

**A copy of the CPSC publication No. 330000011 “Guidelines for Retrofitting Bleachers” may be obtained from the CPSC’s website [www.cpsc.gov](http://www.cpsc.gov)**

**A copy of the ICC code on bleachers is available through MUSIC**

## Bleachers & Grandstands

### *Guidelines to Help Keep Them Safe*

When is the last time you looked at your bleacher systems? Are they an accident or lawsuit waiting to happen? The design and construction of bleachers has changed in the past several years. Bleacher systems within your school must be reviewed and, if necessary, retrofitted to meet the new standards.

Whether they are inside a gymnasium or outside on soccer or football field, bleachers should be inspected seasonally – or quarterly – and, if necessary, repaired because they may be unsafe. You may be asking yourself at this point, “Is there really a hazard associated with bleachers?” The simple answer is “yes,” according to the Consumer Product Safety Commission (CPSC).

The CPSC reports that there have been 19 fatalities as a result of falls from bleachers and over 21,000 injuries requiring emergency room treatment. The majority of these injuries and deaths are children who fall from or through openings in the bleacher system.

#### **CPSC Guidelines and Recommendations**

- Bleachers with the top roll more than 30 inches above the ground or floor should have guardrails on the back and open ends of the bleachers.
- The top surface of the guardrail should be at least 42 inches tall.
- There should be no more than a 4inch gap between the guardrail and the seat or footboard. In addition, there should be no more than a 4 inch opening between components of the guardrail.



- The preferred guardrail systems use only vertical members as fill in from top to bottom of the guardrail. If there are openings in the guardrail which could provide a foothold, then the opening should be limited to 1.75 inches.
- If chain link fencing is used in the guardrail design, it should have a mesh size of 1.25 inches or less.
- If a wall is going to be used as a guardrail, it must be at least 42 inches above the top roll. Also, there must be less than a 4-inch gap between the bleacher system and the wall.
- Any opening between the footboard and the seat board should also be 4 inches or less.

## Other Items to Reduce the Possibility of Slips, Trips, and Falls

In addition, to the above items, it is crucial to incorporate the following into your bleacher systems.

- **Aisles**---The bleacher system should have dedicated aisles for people to enter and exit the bleacher systems.



- **Handrails**—Consideration should be given to the installation of handrails in the aisles.
- **Non-slip coatings**—A non-slip coating should be applied to the aisles of the bleachers.
- **Anchoring Systems**---All bleachers, including portable bleachers, should be secured to the ground.

### Inspection and Maintenance

All bleachers should be inspected at least every season. However, it is recommended to perform an inspection quarterly. These inspections should review the following:

- Are the guard rails in place and in good condition?
- Is there any visible sign of damage?
- Are handrails tight?
- Are there any loose, cracked, or damaged footboards or seat boards?
- Is the non-slip surface in the aisles in good condition?
- Are the bleachers secured to the ground?
- Are there any loose bolts or screws?
- Are the end caps in place?

The CPSC (Consumer Products Safety Commission) also recommends that all bleachers be inspected by a licensed engineer, registered architect, or a bleacher company professional every two years. This individual should provide a written certification indicating the bleachers are “fit for use.”

In addition, to a comprehensive bleacher inspection program, all bleachers should be maintained following the manufacturer’s recommendations and preventative maintenance schedule.



Finally, before performing any work on your bleacher or replacing you or bleacher systems, please contact your local municipality or county to determine if they have any codes or standards which they enforce. Some municipalities have adopted the NFPA's (National Fire Protection Association) Life Safety Code 101 guidelines on bleachers or the ICC's (International Code Council) guidelines for bleacher and bleacher construction.

### **Summary**

Bleachers systems within our facilities, however simple, are complex structures. The key to bleacher safety is your awareness of the potential hazard they exhibit. Your district must develop a bleacher safety program. Key elements of the program include bleacher inspections, bleacher maintenance, and a bleacher replacement program. All of these items need to be included in your overall maintenance program and capital replacement plan.





## **Safety Best Practices**

### **Weight Rooms**

There are several necessary steps coaches should take to make their weight rooms safer for all athletes. The following are just a few of the essential guidelines to consider when thinking about weight room safety.

- All participants should receive medical clearance from their physician before being allowed to use the equipment.
- Each participant and their guardian should sign a permission form.
- All students should be given proper instruction on the use of equipment, including the use of safety devices and limitations. Each student should take proper use and safety test on each piece of equipment. This test must be documented.
- All students should sign a contract which includes guidelines for the following:
  - Safe use of equipment
  - Weight room discipline
  - Working in teams
- Adequate supervision is critical. Good supervision means more than being in the same building or being in the weight room. Coaches should be properly spaced throughout the room with the ability to see everything that is going on in the various work stations. The supervision ratios that should be followed are 1: 10 for middle schools and 1: 15 for high schools.
- Supervisors/Coaches should be qualified and certified. One such certification is given by the National Strength and Conditioning Association - Certified Strength and Conditioning Designation.
- Monitor and enforce rules. Make sure athletes know the rules are not just suggestions.
- Make sure that all safety equipment and devices are being used and properly adjusted.
- Monitor the environment. Look around for unsafe acts and conditions.
- Be aware of MRSA Staph. Proper cleaning of equipment is a must between new users.
- The Life Safety Code recommends an occupancy of 50 sq/ft per person.

- Let all participants know about safety and emergency procedures.
- Post warning and informational signs.
- Inspect the equipment at regular intervals. Make sure the equipment is properly maintained and in good operating condition. Follow the guidelines found in the owner's manuals.
- Make sure the mats/seats on the equipment are in good repair.
- Know your athletes. Be aware of their strengths and weaknesses.
- Be prepared. If an accident happens, be ready to handle the situation as quickly and safely as possible. Make sure you have emergency procedures and guidelines posted.

Weight room safety is not something to be considered after things go wrong. Managing the weight room with safety in mind is the best way to *keep* things from going wrong.

## Weight Room Safety

Item	Needs Attention	Location	Date Corrected
Weights left on bar should be removed and placed in proper storage.			
Broken mirror needs to be replaced.			
Safe equipment use guidelines need to be posted.			
Vinyl covering on the bench needs replacement.			
Safety Bars should be used on the power racks.			
Sanitizing solution needed for the room.			



## **Safety Best Practices**

### **AED's**

The availability and potential use of AED's within the district building is becoming increasingly more common. When placed in strategic positions and properly maintained and used, they can save a life.

The following guidelines should be considered if your district or school has the availability of an AED:

- The AED should be loaded in strategic locations throughout the school. Common areas, gyms, performing arts, etc.
- The first aid response team and other staff members should be trained in their use and limitations. They also should be trained and current in CPR.
- A service plan or contract should be implemented. Many components of the AED need to be checked and replaced on a periodic schedule.



## Safety Best Practices

### Bloodborne Pathogens

#### **GENERAL**

The purpose of this program is to provide guidance when working with potential bloodborne pathogens.

#### **DEFINITIONS**

*Bloodborne Pathogens:* Microorganisms that are present in human blood and can cause disease in humans. These pathogens include hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

*Exposure Incident:* When an employee has contact with blood or other potentially infectious materials as a result of his or her duties. This contact includes specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact.

*Non-Intact Skin:* Skin that has cuts, abrasions or other openings through which bloodborne pathogens could enter the bloodstream.

*Occupational Exposure:* Reasonably anticipated employee contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. This includes skin, eye, mucous membrane or parenteral contact.

*Source Individual:* Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

*Universal Precautions:* An approach to infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.

The designated safety coordinator has overall responsibility. This person is responsible for:

- Issuing and administering this plan and making sure that the plan satisfies the requirements of all applicable federal, state or local bloodborne pathogen regulations
- Identifying which employees are likely to be exposed to bloodborne pathogens
- Developing procedures for post-exposure incidents
- Maintaining medical records of exposure incidents, training records and hepatitis vaccination records
- Completing exposure incident reports and notifying affected individuals
- Evaluating and updating the program annually
- Training employees annually

## **PROGRAM ACTIVITIES**

### *Determination of Exposure*

- A list will be made of all job classifications that have the potential for exposure to bloodborne pathogens
- Specific tasks and procedures will be listed when only some employees in a job classification have the potential to be occupationally exposed.

### *Personal Protective Equipment*

- Employees will be provided with personal protective equipment at no cost.
- Protective equipment will be removed before leaving the work area or after a garment becomes contaminated.
- Used protective equipment will be placed in designated containers.
- Gloves will be worn when the employee may have contact with blood or other potentially infectious materials.
- Gloves will be replaced if torn, punctured or contaminated.
- Utility gloves will be decontaminated for reuse if they are not torn or cracked.
- Decontaminated disposable gloves will never be reused.
- Appropriate face and eye protection will be worn when splashes, sprays, spatters or droplets of blood or other potentially infectious materials pose a hazard to the eye, nose or mouth.
- Appropriate protective body covering will be worn when occupational exposure is anticipated.

### *Housekeeping*

- All equipment and work surfaces that have been contaminated with blood or other potentially infectious materials will be cleaned and decontaminated with an appropriate disinfectant.
- Tongs, forceps or a brush and a dust pan will always be used to pick up contaminated broken glass.
- All infectious waste will be placed in red colored plastic bags for disposal.
- Contaminated sharps will be discarded in containers that are closeable and puncture-resistant. The containers will then be discarded into the red-colored plastic bags.
- All regulated waste will be discarded according to Federal, State and Local regulations.
- Wash with soap and water right after patient treatment, PPE removal, or contact with potentially infectious fluids or materials.

### *Labeling*

- All infectious waste containers will be labeled with a bio-hazard symbol and the word "bio-hazard."

## **UNIVERSAL PRECAUTIONS**

Universal precautions should be implemented and communicated with staff. (see appendix)

## **HBV EXPOSURE PROGRAM**

### *Pre-Exposure Program*

- The Hepatitis B vaccine and vaccination series will be offered within 10 working days of the initial assignment to employees who have occupational exposure.
- The vaccine and vaccinations, as well as all medical evaluations and follow-up will be made available to employees at no cost during work hours.
- Vaccinations will be administered according to current recommendations of the U.S. Public Health Service.

- Employees who decline the vaccination will sign a declination form.
- The vaccination will be made available to the employee at a later date and at no cost if he/she continues to have the potential for exposure.

#### *Post-Exposure Program*

- The post-exposure procedures will be followed for any employee who is not initially identified as occupationally exposed, but who voluntarily or inadvertently becomes exposed in the workplace.
- HBV vaccine will be administered within 24 hours of any reported exposure incident.

#### *Exposure Incident Procedure*

- The routes of exposure and how exposure occurred will be documented.
- The source individual will be identified and documented.
- If consent is given, the source individual's blood will be tested and documented as soon as possible to determine HIV and HBV infectivity.
- The exposed employee will be provided with the source individual's test results and information about applicable laws and regulations concerning source identity.
- After consent is given, the exposed employee's blood will be tested for HBV and HIV serological status.
- If the employee does not give consent for HIV serological testing, the baseline blood sample will be preserved for at least 90 days.
- Recommendations by the U.S. Public Health Service will be followed.
- The health care provider who is responsible for administering the vaccine and post-exposure evaluation will be given a copy of the OSHA Standard as well as applicable State and local Laws.
- After an exposure incident occurs, the health care provider will receive a description of the exposed employee's job duties relevant to the exposure incident, documentation of the route of exposure, circumstances of exposure, results of the source individual's blood tests and all relevant employee medical records, including vaccination status.
- The employee will be provided with a copy of the health care provider's written opinion within 15 days after the evaluation.
- The health care provider who will complete the post-exposure evaluations:

### **TRAINING**

The safety coordinator is designated to ensure that all employees are properly trained. This training will be to the level of exposure of the employee.

The training will be completed on an annual basis or when new employees are hired or existing employees change positions which may increase their exposure to bloodborne pathogens.

The training will emphasize these elements:

- A summary of the standard and this written program
- Methods and ways in which bloodborne pathogens are transmitted
- How to recognize task that might result in occupational exposure
- The proper use and care of PPE (personal protective equipment)
- Universal Precautions
- Incident reporting guidelines

## **APPENDIX**

Universal Precautions  
Hepatitis B Declination Form  
Sample Training Record

### **UNIVERSAL PRECAUTIONS**

All blood and body fluids should be treated as if they are infected.

#### *Use of PPE*

- Select the proper PPE for the job. Gloves, mask, aprons, eye protection, face shields
- Remove PPE when contaminated, entering clean areas or when it is damaged
- Remove PPE without touching exposed skin
- Place contaminated PPE in assigned containers
- Wash with soap and water right after exposure, removal of PPE

#### *Hygiene*

- Keep food, beverages, cigarettes and cosmetics out of areas with potentially infectious materials
- Flush eyes, nose, mouth with water after contact with potentially infectious materials

#### *Sharps*

- Never break or shear contaminated needles
- Never remove or recap sharps
- Place use sharps immediately in assigned puncture resistant and leak proof labeled containers
- Don't overfill or reach into sharps containers

#### *Equipment, Materials and Surfaces*

- Follow regular cleaning and decontamination procedures
- Clean and decontaminated area immediately after direct contact with body fluids
- Handle laundry as little as possible



## HEPATITIS B VACCINE DECLINATION

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Name \_\_\_\_\_  
Signature \_\_\_\_\_  
Date \_\_\_\_\_  
Witness \_\_\_\_\_

## BLOODBORNE PATHOGEN PROGRAM STAFF SAFETY TRAINING

1. Identify potential sources of bloodborne pathogens
  - ✓ Blood
  - ✓ Other bodily fluids
2. Understand universal precautions and proper use of PPE
3. Proper disposal of potentially infected materials
4. Proper sanitation of body fluid spill areas
5. Understand the proper reporting of bloodborne pathogen situations
6. Training of employees

[illegible]



## Safety Best Practices

### Lock Out/Tag Out

#### **GENERAL**

The purpose of this program is to provide guidance when maintaining equipment with energy sources.

The safety coordinator has overall responsibility implementing the program.

In general, each employee in the facility will be apprised of the substance of the Lockout/Tagout program to protect themselves from an accidental release of hazardous energy.

#### **DEFINITIONS**

**Authorized (Qualified) Employees** are the only ones certified to lock and tagout equipment or machinery. Whether an employee is considered to be qualified will depend upon various circumstances in the workplace. It is likely for an individual to be considered "qualified" with regard to certain equipment in the workplace, but "unqualified" as to other equipment. An employee who is undergoing on-the-job training and who, in the course of such training, has demonstrated an ability to perform duties safely at his or her level of training and who is under the direct supervision of a qualified person, is considered to be "qualified" for the performance of those duties.

**Affected Employees** are those employees who operate machinery or equipment upon which lockout or tagging out is required under this program. Training of these individuals will be less stringent in that it will include the purpose and use of the lockout procedures.

**Other Employees** are identified as those that do not fall into the authorized, affected or qualified employee category. Essentially, it will include all other employees. These employees will be provided instruction in what the program is and not to touch any machine or equipment when they see that it has been locked or tagged out.

#### **Hazards—Hazard Controls**

**Hazards** - Improper or failure to use Lockout - Tagout procedures may result in:

- Electrical shock
- Chemical exposure
- Skin burns
- Lacerations & amputation
- Fires & explosions
- Chemical releases
- Eye Injury
- Death

### ***Hazard Controls***

- Only authorized and trained employees may engage in tasks that require use of lockout/tagout procedures
- All equipment has single sources of electrical power
- Lockout procedures have been developed for all equipment and processes
- Restoration from Lockout is a controlled operation

### **TRAINING**

The Safety coordinator is designated to ensure that all employees are properly trained. This training will be to the level of exposure of the employee. Additional training will be provided for employees who have the responsibility for repairing or servicing equipment. Training should be completed on an annual basis. **Most employees will fall under the *Affected or Other Employee training requirements*.**

#### ***Authorized Employees Training***

All Maintenance Employees and designated other employees will be trained to use the Lock and Tag Out Procedures. The training will be conducted by the Maintenance Supervisor or Safety Coordinator at time of initial hire. Retraining shall be held at least annually. The training will consist of the following:

1. Review of General Procedures
2. Review of Specific Procedures for machinery, equipment and processes
3. Location and use of Specific Procedures
4. Procedures when questions arise

#### ***Affected Employee Training***

1. Only trained and authorized Employees will repair, replace or adjust machinery, equipment or processes
2. Affected Employees may not remove Locks, locking devices or tags from machinery, equipment or circuits.
3. Purpose and use of the lockout procedures.

#### ***Other Employee Training***

1. Only trained and authorized Employees will repair, replace or adjust machinery or Equipment.
2. Other Employees may not remove Locks, locking devices or tags from machinery, equipment or circuits

### **LOCKOUT/TAGOUT PROCEDURES**

The following guidelines will be followed when completing service or maintenance on potentially energized equipment and systems. Equipment specific guidelines will be developed for selected equipment.

#### **SOP: General Lock and Tag Out Procedures**

Before working on, repairing, adjusting or replacing machinery and equipment, the following procedures will be utilized to place the machinery and equipment in a neutral or zero mechanical state.

***Preparation for Shutdown.*** Before authorized or affected employees turn off a machine or piece of equipment, the authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the means to control the energy.

Notify all affected Employees that the machinery, equipment or process will be out of service

***Machine or Equipment Shutdown.*** The machine or equipment will be turned or shut down using the specific procedures for that specific machine. An orderly shutdown will be utilized to avoid any additional or increased hazards to employees as a result of equipment de-energization.

If the machinery, equipment or process is in operation, follow normal stopping procedures (depress stop button, open toggle switch, etc.).

Move switch or panel arms to "Off" or "Open" positions and close all valves or other energy isolating devices so that the energy source(s) is disconnected or isolated from the machinery or equipment.

***Machine or Equipment Isolation.***

All energy control devices that are needed to control the energy to the machine or equipment will be physically located and operated in such a manner as to isolate the machine or equipment from the energy source.

***Lockout or Tagout Device Application.***

Lockout or tagout devices will be affixed to energy isolating devices by authorized employees. Lockout devices will be affixed in a manner that will hold the energy isolating devices from the "safe" or "off" position.

Where tagout devices are used they will be affixed in such a manner that will clearly state that the operation or the movement of energy isolating devices from the "safe" or "off" positions is prohibited.

The tagout devices will be attached to the same point a lock would be attached. If the tag cannot be affixed at that point, the tag will be located as close as possible to the device in a position that will be immediately obvious to anyone attempting to operate the device.

Lock and tag out all energy devices by use of hasps, chains and valve covers with an assigned individual locks.

***Stored Energy***

Following the application of the lockout or tagout devices to the energy isolating devices, all potential or residual energy will be relieved, disconnected, restrained, and otherwise rendered safe.

Where the re-accumulation of stored energy to a hazardous energy level is possible, verification of isolation will be continued until the maintenance or servicing is complete.

Release stored energy (capacitors, springs, elevated members, rotating fly wheels, and hydraulic/air/gas/steam systems) must be relieved or restrained by grounding, repositioning, blocking and/or bleeding the system.

### ***Verification of Isolation***

Prior to starting work on machines or equipment that have been locked or tagged out, the authorized employees will verify that isolation or de-energization of the machine or equipment have been accomplished.

After assuring that no Employee will be placed in danger, test all lock and tag outs by following the normal start up procedures (depress start button, etc.).

**Caution:** After Test, place controls in neutral position.

### ***Extended Lockout - Tagout***

Should the shift change before the machinery or equipment can be restored to service, the lock and tag out must remain. If the task is reassigned to the next shift, those Employees must lock and tag out before the previous shift may remove their lock and tag.

### **SOP: Release from LOCKOUT/TAGOUT**

Before lockout or tagout devices are removed and the energy restored to the machine or equipment, the following actions will be taken:

1. The work area will be thoroughly inspected to ensure that nonessential items have been removed and that machine or equipment components are operational.
2. The work area will be checked to ensure that all employees have been safely positioned or removed. Before the lockout or tagout devices are removed, the affected employees will be notified that the lockout or tagout devices are being removed.
3. Each lockout or tagout device will be removed from each energy isolating device by the employee who applied the device.

### **SOP: LOTO Procedure for Electrical Plug-Type Equipment**

This procedure covers all Electrical Plug-Type Equipment such as Battery Chargers, some Product Pumps, Office Equipment, Powered Hand Tools, Powered Bench Tools, Lathes, Fans, etc.

When working on, repairing, or adjusting the above equipment, the following procedures must be utilized to prevent accidental or sudden startup:

1. Unplug Electrical Equipment from wall socket or in-line socket.
2. Attach "Do Not Operate" Tag and Plug Box & Lock on end of power cord.  
An exception is granted to not lock & tag the plug if the cord & plug remain in the exclusive control of the Employee working on, adjusting or inspecting the equipment.
3. Test Equipment to assure power source has been removed by depressing the "Start" or "On" Switch.
4. Perform required operations.
5. Replace all guards removed.
6. Remove Lock & Plug Box and Tag.
7. Inspect power cord and socket before plugging equipment into power source. Any defects must be repaired before placing the equipment back in service.

**NOTE:** Occasionally used equipment may be unplugged from power source when not in use.

**SOP: LOTO Procedures Involving More Than One Employee**

In the preceding SOPs, if more than one Employee is assigned to a task requiring a lock and tag out, each must also place his or her own lock and tag on the energy isolating device(s).

**SOP: Management's Removal of Lock and Tag Out**

Only the Employee that locks and tags out machinery, equipment or processes may remove his/her lock and tag. However, should the Employee leave the facility before removing his/her lock and tag, the Maintenance Manager may remove the lock and tag. The Maintenance Manager must be assured that all tools have been removed, all guards have been replaced and all Employees are free from any hazard before the lock and tag are removed and the machinery, equipment or process are returned to service. Notification of the employee who placed the lock is required prior to lock removal.

***Contractors***

Contractors, working on company property and equipment must use this Lockout - Tagout procedure while servicing or maintaining equipment, machinery or processes.

**APPENDIX**

Equipment Specific Checklist  
Sample Training Record

**LOCKOUT/TAGOUT**  
**Equipment Specific Procedures**

<b>Equipment or Process:</b>	
<b>Location of Equipment:</b>	
<b>Prepared by:</b>	
<b>Date Prepared:</b>	

A tag is required at each isolation location listed below.  
The specific type of lock must be applied to the location listed.

Type of Energy	Isolation Location	Type of Lockout Device
Electrical		
Pneumatic		
Hydraulic		
Thermal		
Chemical		
Gravitational		
Stored		
Other--		

Specific Hazards	Procedures to Control Specific Hazards

**Special Procedures:**

**Stored Energy Release Procedures:**

**Notes:**

<b>Isolation Location</b> shall positively identify the exact breaker, valve, switch or other disconnect or blocking device to be locked and tagged to isolate the source of energy from the work area.
<b>Type of Lockout</b> shall specifically name the exact type of locking device needed to ensure the disconnected or blocking device stays in the isolated position/condition. (breaker clip, valve hand wheel cover, blank flange etc.
<b>Stored Energy:</b> Following the application of the Lockout/Tagout devices to the energy isolating devices, all potential or residual energy will be released, disconnected, restrained and otherwise rendered safe.



**LOCKOUT/TAGOUT PROGRAM  
STAFF SAFETY TRAINING**

1. Understand all sources of energy to equipment
2. Understand the procedures for shutting down equipment
  - ✓ Normal operating procedures
  - ✓ Emergency shutdown
3. Locking or tagging out equipment
  - ✓ Use of red tags
  - ✓ Use of locks and other devices by authorized personnel
4. Understand procedures for re-starting or re-energizing equipment
5. Understand all sources of energy to equipment
6. Understand the procedures for shutting down equipment
  - ✓ Normal operating procedures
  - ✓ Emergency shutdown
7. Locking or tagging out equipment
  - ✓ Use of red tags
  - ✓ Use of locks and other devices by authorized personnel
8. Understand procedures for re-starting or re-energizing

Employee Name	Employee Signature	Date of Training



## **Safety Best Practices**

### **PPE Self-Assessment**

#### **GENERAL**

The purpose of this program is to assess our workplace to determine if hazards are present or likely to be present which requires the use of Personal Protective Equipment (PPE).

#### **HAZARD ASSESSMENT**

The safety coordinator will verify the hazard assessment has been performed through a written certification. The certifications will list:

- Identify the workplace where assessment was performed.
- Name the person certifying that the assessment was performed.
- Give the date(s) that the hazard assessment was performed.
- Be identifiable as a document of certification of hazard assessment.

#### **IDENTIFIED HAZARDOUS JOBS**

If hazards are found to be present or likely to be present, the safety coordinator will:

- Select the type of PPE that will protect the employee.
- Provide the correct PPE for each job.
- Require the employees to use the PPE.
- Train each affected employee.

#### **TRAINING**

Each employee who performs work which requires the use of PPE will receive training

The training will emphasize these elements:

- A summary of the standard and this written program;
- When PPE is necessary
- What PPE is necessary
- How to put on, take off, adjust, and wear PPE
- Limitations of PPE
- Proper care, maintenance, useful life, and disposal of the PPE

Before being allowed to perform work that requires the use of PPE, each employee will;

- Demonstrate an understanding of training provided
- Demonstrate ability to properly use PPE.

If a supervisor has reason to believe that an employee does not understand the training or possess the skill required to wear the PPE the employer will retrain the employee immediately. Other circumstances where retraining is required include, but are not limited to:

- Changes in the workplace that render previous training obsolete
- Changes in PPE that render previous training obsolete
- Employee does not retain the understanding or skills to use PPE

The safety coordinator will monitor and maintain records of employee training and advise the facility manager on training needs.


#### **APPENDIX**


Sample PPE Hazard Assessment Form  
Sample Training Record




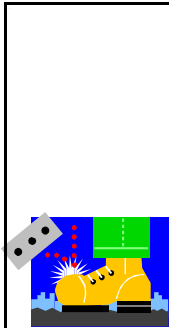
## JOB HAZARD ANALYSIS & PPE CHECKLIST

<b>Name:</b>		<b>Department:</b>	
<b>I am Analyzing (check the appropriate box):</b>	<input type="checkbox"/> Work Task	Job/Task:	
	<input type="checkbox"/> An Individual Position	Name of Employee:	
		Title of Position:	
		Position Type:	
	<input type="checkbox"/> A Position Description For a Group of Employees	Title of Position/Task:	
		Position Type:	

	<b>Eye Hazards</b> may include the following: working with chemicals, chipping, sanding, grinding, welding, metal & wood working				
	Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
	Chemical Exposure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Dust/Flying Debris	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	High Heat/Cold Temp.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Light/Ionizing Radiation	<input type="checkbox"/> Yes	<input type="checkbox"/> No		

	<b>Head Hazards</b> may include the following: working below other employees who are using tools or materials that could fall; working on energized equipment; and working in confined spaces.				
	Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
	Impact	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Electrical Shock	<input type="checkbox"/> Yes	<input type="checkbox"/> No		

	<b>Noise Hazards</b> may include the following: grinding, sanding, using powered equipment/machinery, lawn equipment.				
	Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
	Noisy Work Environment	<input type="checkbox"/> Yes	<input type="checkbox"/> No		



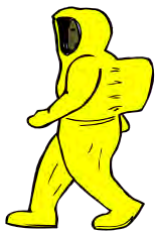
**Foot Hazards** may include the following: exposure to chemicals, welding, cutting, materials handling, electrical work, forklifts, and heavy moving equipment.

Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
Chemical Exposure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Impact/Compression	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
High Heat/Cold Temp.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Slips/Trips/Falls	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Puncture	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Slippery/Wet Surfaces	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Electrical	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Flammable/Explosive Atmospheres	<input type="checkbox"/> Yes	<input type="checkbox"/> No		



**Hand Hazards** may include the following: work with chemicals, abrasion/cut hazards, material handling, woodworking, hot or cold objects/materials, and custodial work.

Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
Chemical Exposure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Cuts/Abrasion	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
High Heat/Cold Temp.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Electrical Shock	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Puncture	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
BBP/Infectious Waste	<input type="checkbox"/> Yes	<input type="checkbox"/> No		



**Body/Torso Hazards** may include the following: chemical/hazardous material exposure, welding, cutting.

Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
Chemical Exposure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Abrasion	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
High Heat/Cold Temp.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Impact	<input type="checkbox"/> Yes	<input type="checkbox"/> No		



**Respiratory Hazards** may include the following: using certain chemicals, applying paints/chemicals in

Check the appropriate box for each hazard:			Description of hazard(s):	Based upon the hazard assessment, the following PPE is required:
Chemical Exposure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Confined Space Work	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Particulate Exposure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Welding/Cutting	<input type="checkbox"/> Yes	<input type="checkbox"/> No		

## PPE PROGRAM STAFF SAFETY TRAINING

1. Overview of PPE
2. Identifying jobs which require PPE
3. Understand which PPE is necessary
4. Understand the limitations of PPE
5. Demonstrate proper use of PPE

[illegible]



## **Safety Best Practices**

### **Hazard Communication / Global Harmonization**

#### **GENERAL**

The purpose of this program is to provide guidance on the safe use of chemicals.

The safety coordinator has the overall responsibility for implementing the program.

In general, each employee in the facility will be appraised of the substance of the GHS/HCS, the hazardous properties of chemicals they work with, and measures to take to protect themselves from these chemicals.

#### **LIST OF HAZARDOUS CHEMICALS**

The workshop will maintain a list of all hazardous chemicals used at each facility, and update the list as necessary. The hazardous chemical list will be updated upon receipt of hazardous chemicals. The list of hazardous chemicals is maintained at the office.

#### **SAFETY DATA SHEETS (SDS)**

The workshop will maintain an SDS library on every substance on the list of hazardous chemicals in the office. SDS's will be readily available to all employees.

The safety coordinator is responsible for acquiring and updating SDS's. The Safety Coordinator will review each SDS for accuracy and completeness. All new procurements for new chemicals must be cleared by the safety coordinator. Whenever possible, the least hazardous substance will be procured.

SDS's that meet the requirements of GHS/HCS must be fully completed and received at the facility either prior to, or at the time of receipt of the first shipment of any potentially hazardous chemical purchased from a vendor.

#### **LABELS AND OTHER FORMS OF WARNING**

The safety coordinator is designated to ensure that all hazardous chemicals in are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings, pictograms and the name and address of the manufacturer, importer, or other responsible party.

The safety coordinator will refer to the corresponding SDS to verify label information. Immediate use containers, small containers into which materials are drained for use on that shift by the employee drawing the material should also be labeled with the containers content.

Supervisors will check on a monthly basis to ensure that all containers are labeled and that the labels are up to date.

## **TRAINING**

Each employee who works with or is potentially exposed to hazardous chemicals will receive initial training on GHS/HCS and the safe use of those hazardous chemicals. Additional training will be provided for employees whenever a new hazard is introduced into their work areas. Training should be completed on an annual basis.

The training will emphasize these elements:

- A summary of the standard and this written program;
- Hazardous chemical properties including visual appearance and odor and methods that can be used to detect the presence or release of hazardous chemicals;
- Physical and health hazards associated with potential exposure to workplace chemicals;
- Procedures to protect against hazards, e.g. personal protective equipment, work practices, and emergency procedures;
- Hazardous chemical spill and leak procedures; and
- Where SDS's are located, how to understand their content, and how employees may obtain and use appropriate hazard information.

The safety coordinator will monitor and maintain records of employee training and advise the facility manager on training needs.

## **CONTRACTOR EMPLOYEES**

The safety coordinator, upon notification from the responsible supervisor, will advise outside contractors of any chemical hazards which may be encountered in the normal course of their work on the premises.

Note: Any contractor bringing or using any hazardous chemicals on site, will notify workshop management of any exposure to employees.



## APPENDIX

## Sample Chemical Inventory List

### Explanation of Pictograms

### Sample Training Record

## List of Chemicals

**{School Name}**

[illegible]

## Pictograms

### Health Hazards



### Environmental Hazards



### Physical Hazards



## Transportation Hazards



## HAZARD COMMUNICATION/GLOBAL HARMONIZATION PROGRAM STAFF SAFETY TRAINING

1. Know how to find and read the SDS sheets and manual
2. Understand the pictograms. Have copy at desk or workstation and forklift
3. Use proper and necessary PPE
4. Understand proper procedures for cleaning up spills
5. Understand the proper procedure for disposal of spilled or excess materials

[illegible]



## **Safety Best Practices**

### **Fall Protection**

#### **OBJECTIVE**

To protect employees by reducing the risk of injury or fatality from falls from heights.

An employee must be protected from falling when working on a surface that has an unprotected side or edge which is 6 feet or more above an adjacent lower level or when working from aerial lifts or other elevated work platforms and lifts.

In each of these cases, the fall hazards must be evaluated to determine the preferable method to protect the employee. When considering what type of fall protection to use, the following hierarchy of remedies, in order of preference, should be considered:

- Elimination of the fall hazard by bringing the work down to safe ground level
- Use of passive fall protection systems such as guard rails
- Fall restraint which prevents a person from reaching a fall hazard
- Fall arrest which utilizes equipment to stop a fall after it occurs
- Administrative controls which use work practices or procedures to signal or warn a worker to avoid approaching a fall hazard.

#### **TRAINING**

Each employee who may be exposed to fall hazards shall be trained to recognize the hazards and the procedures to follow to minimize the hazards. A competent person will provide the training.

The competent person must train employees in the following areas:

- fall hazards in the work area
- correct procedures for erecting, maintaining, disassembling and inspecting the fall protection systems used
- selection, proper use and care of equipment comprising a personal fall arrest system
- role of employees in fall protection plans
- what rescue procedures to follow in case of a fall
- overview of the OSHA fall protection standards

A training record shall be maintained for each employee. The record will contain the name of the employee trained, date of training and the signature of the person who conducted the training. Retraining shall be required every year and if there is a change in the fall protection system being used or if an employee's actions demonstrate that the employee has not retained the understanding or skills important to fall protection.

## **FALL PROTECTION SYSTEMS**

One of the following systems shall be in place whenever an employee is exposed to a fall hazard of six feet or higher.

## **GUARDRAIL SYSTEMS**

The use of guardrail systems is considered a passive method of fall protection and is actually the preferred method for eliminating fall hazards.

Guardrails are needed at the edge of work areas 6 feet or more in height to protect employees from falling. This includes the edge of excavations greater than six feet in depth. Guardrail systems need to meet the following criteria:

- Toprail is 42 inches, +/- 3 inches above the walking/working level
- Midrail is located midway between the top rail and the walking/working level
- It is important to remember that the working level is that level where the work is being done. Someone working on a stepladder next to an edge may raise his/her working surface well above the walking surface.
- Both top and midrails should be constructed of materials at least one-quarter inch in thickness or diameter. If wire rope is used for top rails, it needs to be flagged with a high-visibility material at least every 6 feet and can have no more than 3" of deflection
- The toprail needs to withstand a force of 200 pounds when applied in any downward or outward direction.
- The midrail needs to withstand a force of 150 pounds applied in any downward or outward direction
- Toeboards are required for all guardrails on elevated walking or working platforms where employees working below are exposed to falling objects. Toeboards must be four inches in height and must be securely fastened.
- The system should be smooth to prevent punctures, lacerations or snagging of clothing
- The ends of the top rail shouldn't overhang the terminal posts, except when such overhang does not present a projection hazard
- When a hoisting area is needed, a chain, gate or removable guardrail section must be placed across the access opening when hoisting operations are not taking place.

## **LOADING DOCKS**

Loading docks and other open sided floors greater than 4 feet above ground level must be protected. The approved method of protection is the installation of a standard guardrail as described in this section. The guardrail may have removable sections to provide access for loading but rails must remain in place when access is not required. Loading docks with a leading edge of less than 4 feet above ground should be protected by a physical or visual barrier to help prevent falls.

## **PERSONAL FALL ARREST SYSTEM**

Personnel requiring the use of personal fall protection equipment shall employ the “Buddy System” or have an observer to render assistance when and if required.

There are three main components to the personal fall arrest system. This includes the personal protective equipment the employee wears, the connecting devices and the anchorage point. Prior to tying off to perform the work a means of rescue in the event of a fall must be immediately available. All personal fall arrest system components must meet the requirements of the ANSI Z359 Standards. The system needs to meet the following criteria for each component:

## **PERSONAL PROTECTIVE EQUIPMENT**

- Full body harnesses are required. The use of body belts is prohibited.
- The attachment point of the body harness is the center D-ring on the back.
- Employees must always tie off at or above the D ring of the harness except when using lanyards 3 feet or less in length.
- Harnesses or lanyards that have been subjected to an impact load shall be destroyed.
- Load testing shall not be performed on fall protection equipment.

## **CONNECTING DEVICES**

This device can be a rope or web lanyard, rope grab or retractable lifeline.

- Only locking snaphooks may be used.
- Horizontal lifelines will be designed by a qualified person and installed in accordance with the design requirements.
- Lanyards and vertical lifelines need a minimum breaking strength of 5,000 pounds.
- The length of a single lanyard shall not exceed six feet.
- The use of steel lanyards is prohibited.
- Lanyards may not be clipped back to itself (e.g. around an anchor point) unless specifically designed to do so.
- If vertical lifelines are used, each employee will be attached to a separate lifeline.
- Lifelines need to be protected against being cut or abraded

## **ANCHORAGE**

Secure anchor points are the most critical component when employees must use fall arrest equipment. UF buildings may have existing structures (e.g., steel beams that may meet the criteria for a secure anchor point). Other work locations and assignments may require the installation of a temporary or permanent anchor. As a minimum, the following criteria must be considered for each type of anchor point:

- Structure must be sound and capable of withstanding a 5000 lb. static load.
- Structure/anchor must be easily accessible to avoid fall hazards during hook up.
- Direct tying off around sharp edged structures can reduce breaking strength by 70% therefore; chafing pads or abrasion resistant straps must be used around sharp edged structures to prevent cutting action against safety lanyards or lifelines.
- Structures used as anchor points must be at the worker's shoulder level or higher to limit free fall to 6 feet or less and prevent contact with any lower level (except when using a self-retracting lifeline or 3 foot lanyard).
- Choose structures for anchor points that will prevent swing fall hazards. Potentially dangerous "pendulum" like swing falls can result when a worker moves horizontally away from a fixed anchor point and falls. The arc of the swing produces as much energy as a vertical free fall and the hazard of swinging into an obstruction becomes a major factor. Raising the height of the anchor point can reduce the angle of the arc and the force of the swing. Horizontal lifelines can help maintain the attachment point overhead and limit the fall vertically. A qualified person must design a horizontal lifeline.

## **PERMANENT ANCHOR REQUIREMENTS**

In addition to all the criteria listed above, the following points must be considered:

- Environmental factors and dissimilarity of materials can degrade exposed anchors.
- Compatibility of permanent anchors with employee's fall arrest equipment.
- Inclusion of permanent anchors into a Preventive Maintenance Program with scheduled annual re-certification.
- Visibly label permanent anchors.
- Roof anchors must be immediately removed from service and re-certified if subjected to fall arrest forces.

## **REUSEABLE TEMPORARY ANCHORS**

- Reusable temporary roof anchors must be installed and used following the manufacturer's installation guidelines.
- Roof anchors must be compatible with employee's fall arrest equipment.
- Roof anchors must be removed from service at the completion of the job and inspected prior to reuse following the manufacturer's inspection guidelines.
- Roof anchors must be immediately removed from service and disposed of if subjected to fall arrest forces.



## **COMPLETE SYSTEM**

- If a fall occurs, the employee should not be able to free fall more than 6 feet nor contact a lower level.
- To ensure this, add the height of the worker, the lanyard length and an elongation length of 5.5 feet. Using this formula, a six-foot worker would require a tie-off point at least 15.5 feet above the next lower level.
- A personal fall arrest system that was subjected to an impact needs to be removed from service immediately.
- Personal fall arrest systems need to be inspected prior to each use and damaged or deteriorated components removed from service.
- Personal fall arrest systems should not be attached to guardrails or hoists.

## **WORKING FROM AERIAL LIFTS AND SELF POWERED WORK PLATFORMS**

Training in the proper operation and inspection of the equipment must be received prior to operating or working from an aerial lift or self-powered work platform, regardless of the type.

Body harnesses must be worn with a shock-absorbing lanyard (preferably not to exceed 3 feet in length) and must be worn when working from an elevated work platform (exception: scissor lifts and telescoping lifts that can move only vertically do not require the use of a harness and lanyard as long as the work platform is protected by a guardrail system). The point of attachment must be the anchor point installed by the equipment manufacturer. Personnel cannot attach lanyards to adjacent poles, structures or equipment while they are working from the aerial lift.

Personnel cannot move an aerial lift while the boom is in an elevated working position and the operator is inside of the lift platform.

## **INSPECTIONS**

The employee shall inspect the entire personal fall arrest system prior to every use. The competent person will inspect the entire system in use at the initial installation and weekly thereafter. The visual inspection of a personal fall arrest system shall follow the manufacturer's recommendations. Any components of a personal fall arrest system noted to be damaged shall be removed from service immediately.



## **Safety Best Practices**

### **Ladder Safety**

#### **PURPOSE**

The purpose of this safety policy and procedure is to establish guidelines for the safe use of ladders by employees, contractors and visitors. Ladders are used when employees need to move up or down between two different levels. Slips, trips, and falls are significant contributors to accidents. Slips, trips, and falls can occur when wrong ladder selection is made and when improper climbing techniques and/or defective ladders are used.

The appropriate ladder will be used for the corresponding job and defective ladders will not be used. When hazards exist that cannot be eliminated, then engineering practices, administrative practices, safe work practices, Personal Protective Equipment (PPE), and proper training regarding ladders will be implemented. These measures will be implemented to minimize those hazards to ensure the safety of employees and the public.

#### **RESPONSIBILITIES**

Managers are responsible for ensuring that adequate funds are available and budgeted for the purchase of ladders in their areas. Managers will obtain and coordinate the required training for the affected employees. Managers will also ensure compliance with this safety policy and procedure through their auditing process.

#### **SUPERVISORS**

Supervisors are responsible for ensuring that all ladders (fixed and portable) are regularly inspected and properly maintained. They will also be responsible for tagging ladders in need of repair and removing defected ladders from service for repair or destruction. Supervisors will audit for compliance with this safety policy and procedure during their facility and jobsite audits.

#### **EMPLOYEES**

Employees shall comply with all applicable guidelines contained in this safety policy and procedure. Employees are also responsible for reporting immediately suspected unsafe conditions or ladders to their supervisor. Employees are to inspect ladders before using and are to keep ladders clean and in good condition.

#### **SAFETY**

Safety will provide prompt assistance to managers, supervisors or others as applicable on any matter concerning this safety policy and procedure. Additionally, Safety will assist in developing or securing of

required training. Safety will provide consultative and audit assistance to ensure effective implementation of this safety policy and procedure. Safety will also work to ensure that all newly purchased ladders comply with this safety policy and procedure and current safety regulations.

## **TRAINING**

Ladder safety training shall be done upon initial employment and/or job assignment and yearly. Refresher training shall be provided to employees at the discretion of their supervisor. Employees using the ladders shall be trained in:

- The proper use of the ladders
- What kind of ladder to use
- How to set up ladders
- Ladder inspection
- Proper maintenance

## **LADDER HAZARDS**

There are inherent hazards associated with ladder use. Typical ladder hazards include:

- Insufficient surface resistance on ladder rungs and steps
- Ladder structural failure
- Ladders tipping sideways, backwards, or slipping out at the bottom
- Ladder spreaders not fully opened and locked, causing the ladder to “walk”, twist or close up when a load is applied to the ladder
- Using metal ladders around electricity
- Using deteriorated ladders
- Using fixed ladders without cages or fall protection

## **SAFE LADDER USE**

Employees should follow certain rules when placing, ascending, and descending ladders which include:

- Hold on with both hands when going up or down. If material must be handled, raise or lower it with a rope either before going down or after climbing to the desired level.
- Always face the ladder when ascending or descending.
- Never slide down a ladder.
- Be sure shoes are not greasy, muddy, or slippery before climbing.
- Do not climb higher than the third rung from the top on straight or extension ladder, or the second tread from the top on stepladders.
- Carry tools on a tool belt not in the hand.
- Never lean too far to the sides. Keep your belt buckle within the side rails.
- Use a 4 to 1 ratio when leaning a single or extension ladder. (place a 12 foot ladder so that the bottom is 3 feet away from the object the ladder is leaning against.)
- Inspect ladder for defects before using.

- Never use a defective ladder. Tag or mark it so that it will be repaired or destroyed.
- Never splice or lash a short ladder together.
- Never use makeshift ladders, such as cleats fastened across a single rail.
- Be sure that a stepladder is fully open and the metal spreader locked before starting to climb.
- Keep ladders clean and free from dirt and grease.
- Never use ladders during a strong wind except in an emergency and then only when they are securely fastened.
- Never leave placed ladders unattended.
- Never use ladders as guys, braces, or skids, or for any other purpose other than their intended purposes.
- Never attempt to adjust a ladder while a user is standing on the ladder.
- Never jump from a ladder. Always dismount from the bottom rung.

## Ladder Inspection Checklist

Inspection Date \_\_\_\_\_ Inspected by \_\_\_\_\_ Ladder Model \_\_\_\_\_

### General

	Needs Repair	Condition OK
Splinters on side rails and legs.....	<input type="checkbox"/>	<input type="checkbox"/>
Joints tight between the side rail and steps.....	<input type="checkbox"/>	<input type="checkbox"/>
Metal hardware is secure.....	<input type="checkbox"/>	<input type="checkbox"/>
Splits in side rails.....	<input type="checkbox"/>	<input type="checkbox"/>
Gouges, dents greater than 10% of thickness.....	<input type="checkbox"/>	<input type="checkbox"/>
Worn, crushed, cracked, split, splintered, missing, rungs steps, tops or platforms.....	<input type="checkbox"/>	<input type="checkbox"/>
Play of 3/4 inch in the rails due to loose rungs or steps.....	<input type="checkbox"/>	<input type="checkbox"/>
Broken or bent guide irons, spreader or locks.....	<input type="checkbox"/>	<input type="checkbox"/>
Rusted or corroded spots.....	<input type="checkbox"/>	<input type="checkbox"/>
Damaged or worn non-slip bases.....	<input type="checkbox"/>	<input type="checkbox"/>
Rivets sheared, pulled through, uncurled, loosened.....	<input type="checkbox"/>	<input type="checkbox"/>

### Stepladders

Loose or bent hinge spreaders.....	<input type="checkbox"/>	<input type="checkbox"/>
Stop on hinge spreaders broken.....	<input type="checkbox"/>	<input type="checkbox"/>
Loose hinges.....	<input type="checkbox"/>	<input type="checkbox"/>
Damage to the pail shelf.....	<input type="checkbox"/>	<input type="checkbox"/>

### Extension ladders

Loose, broken, missing extension locks.....	<input type="checkbox"/>	<input type="checkbox"/>
Defective locks that do not seat properly.....	<input type="checkbox"/>	<input type="checkbox"/>
Deterioration of rope.....	<input type="checkbox"/>	<input type="checkbox"/>

### Fixed ladders

Loose worn or damaged rungs or side rails.....	<input type="checkbox"/>	<input type="checkbox"/>
Damaged or corroded parts of the cage.....	<input type="checkbox"/>	<input type="checkbox"/>
Corroded bolts and rivet heads on inside of metal stacks.....	<input type="checkbox"/>	<input type="checkbox"/>
Damaged or corroded handrails or brackets on platforms.....	<input type="checkbox"/>	<input type="checkbox"/>
Weakened or damaged rungs on brick or concrete slabs.....	<input type="checkbox"/>	<input type="checkbox"/>
Base of ladder obstructed.....	<input type="checkbox"/>	<input type="checkbox"/>

**If any item needs repair tag the ladder 'Do Not Use' and remove from service.**

**LADDER SAFETY PROGRAM**  
**STAFF SAFETY TRAINING**

1. Understand how to pick the proper ladder for the job
2. Understand how to properly set and use the ladder
3. Understand the limitations of the ladder
4. Understand how to complete a proper ladder inspection

Employee Name	Employee Signature	Date of Training



## Safety Best Practices

### Forklift Operations

#### **PURPOSE**

All forklifts (powered industrial equipment) shall be operated, maintained, and controlled in a safe manner. To define the procedures and standards that apply to the care, control, maintenance, inspection, and operation of forklifts (powered industrial equipment).

#### **DEFINITIONS**

**Forklift** means a mobile, power-propelled truck used to carry, push, pull, lift, stack, or tier materials. Powered industrial trucks (forklifts) are also commonly known as pallet trucks, rider trucks, fork trucks, or lift trucks.

#### **TRAINING**

Only trained and authorized persons are permitted to operate a forklift. No employee is allowed to operate a forklift without the proper training. A sample training outline is included as a checklist in (Appendix 1). The following requirements shall be met to become a "Qualified Forklift Operator":

- Complete the educational requirement as stated above.
- Perform the demonstrated capability requirement satisfactorily. Each trainee, who satisfactorily completes the qualifications as outlined above, shall be issued a written document as evidence of being a Qualified Forklift Operator.

#### **INSPECTION AND MAINTENANCE**

Each forklift truck operator shall inspect their vehicle at the start of each shift and document this inspection on the Daily Forklift Inspection Form (Appendix 2). Any noted condition that affects the safe operation of the lift truck shall be reported to the operator's supervisor for corrective action and shall keep the lift truck from being operated until the unsafe condition is corrected.

Forklifts that are defective, in need of repair or are unsafe shall be tagged "Danger - Do Not Operate" and taken out of service until restored to safe operating condition.

A maintenance log shall be kept on each forklift to determine when required maintenance is due. Only qualified personnel shall perform maintenance and repair.

## **GENERAL RULES**

1. Stunt driving and horseplay shall not be permitted.
2. All forklifts shall be equipped with seat belts and utilized by the operator when in use.
3. Personnel are not permitted to ride on forklifts except in designated seats that are part of the equipment design.
4. All forklifts shall be equipped with a dry chemical fire extinguisher.
5. Under all travel condition the forklift shall be operated at a speed that will permit it to be brought to a stop in a safe manner.
6. All traffic regulations shall be observed, including authorized work speed limits. A safe distance shall be maintained approximately three forklift lengths from the forklift truck ahead.
7. The driver shall be required to slow down and sound the horn at cross aisles and other areas where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.
8. The driver shall be required to look in the direction of, and keep a clear view of the path of travel.
9. Forklifts shall have a functional horn and back-up alarm with a distinctive sound, loud enough to be heard clearly above background noises. There are other scenarios where a flashing yellow/amber light would be installed.
10. Copies of the manufacturer's operating instructions for each type of forklift shall be readily available for review by operators and supervisory personnel.
11. Lift trucks, stackers, etc., shall have the rated capacity clearly posted on the vehicle so as to be clearly visible to the operator. When the manufacturer provides auxiliary removable counterweights, corresponding alternate rated capacities also shall be clearly shown on the vehicle. These ratings shall not be exceeded.
12. No modifications or additions, which affect the capacity or safe operation of the equipment, shall be made without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly. In no case shall the original safety factor of the equipment be reduced.
13. If a load is lifted by two or more forklifts working in unison, the total load carried by all shall not exceed their total combined capacity. This would be considered a non-routine task.



14. Steering or spinner knobs shall not be attached to the steering wheel unless the steering mechanism is of a type that prevents road reactions from causing the steering hand wheel to spin. The steering knob shall be mounted within the periphery of the wheel.
15. All forklifts shall have the manufacturer's nameplate showing its weight with attachments, lifting capacity, lift height maximum and other pertinent data. Nameplates or markings shall be maintained in a legible condition and remain in place at all times.
16. Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
17. Grades shall be ascended or descended slowly.
18. When ascending or descending grades in excess of 10 percent, loaded forklifts shall be driven with the load upgrade.
19. Unloaded forklifts should be operated on all grades with the load engaging means downgrade.
20. On all grades, the load and load engaging means shall be tilted back if applicable and raised only as far as necessary to clear the road surface.
21. No person shall be allowed to stand or pass under the elevated portion of any forklift, whether loaded or empty.
22. There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.
23. Arms or legs are prohibited from being placed between the uprights of the mast or outside the running lines of the forklift.
24. When a forklift is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if parked on an incline.
25. A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform, or freight car. Forklifts shall not be used for opening or closing freight doors.
26. Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semi-trailer during loading or unloading when the trailer is not coupled to a tractor. Prior to forklift entry, the flooring and frames of trucks, trailers and railroad cars shall be checked for breaks and weakness before they are driven into and to determine if it will bear the intended weight of the forklift and intended load.

27. Dock board or bridge plates shall be properly secured before they are driven over. Dock board or bridge plates shall be driven over carefully and slowly and their rated capacity never exceeded. Portable dock boards shall be secured in position, by being anchored or equipped with devices that will prevent their slipping.
28. An overhead guard shall be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material. etc. representative of the job application, but not to withstand the impact of a falling capacity load.
29. Additional counter weighting of forklifts shall not be allowed unless approved by the manufacturer

### **REFUELING AND RECHARGING**

Refueling and battery charging operations shall be performed only in designated areas. Open flames, smoking, sparks or electric arcs shall be eliminated from refueling and battery changing/charging areas.

All forklifts shall be properly positioned and brakes applied before attempting to refuel or change/charge battery.

### **REFERENCES**

OSHA 29 CFR 1910. 178 (Powered Industrial Trucks)

## **Sample Powered Industrial Truck (PIT) Operator Training Outline**

1. Introduction
  - a. Overview of the program (include OSHA regulations).
  - b. Goal of the program: to provide a training program based on the trainee's prior knowledge, the types of vehicles used in the workplace, and the hazards of the workplace.
  - c. Course will utilize video, group discussion and hands-on practice. Each operator must obtain the knowledge and skills needed to do their job correctly and safely.
2. Types, Features, and Physics
  - a. Familiarize each operator with the basic types and functions of powered industrial trucks.
  - b. Develop an understanding of the information shown on a data plate.
  - c. Understand the critical truck measurements that affect safety.
  - d. Understand the forces that cause tip overs, and the truck design considerations and safety ratings that help prevent them, including the "stability triangle."
3. Inspecting the vehicle
  - a. Understand the purpose and importance of pre-operational checkouts.
  - b. Provide a basic understanding of areas covered during a pre-operational checkout.
  - c. Familiarize each operator with a checklist for pre-operational checkouts, and what to do if a problem is discovered.
4. Driving the Truck
  - a. Understand the elements of safe movement of a PIT.
  - b. Understand the differences between an automobile and a powered industrial truck.
  - c. Recognize the safety hazards associated with operating a powered industrial.
5. Load Handling
  - a. Understand the elements of load lifting safety.
  - b. Understand the safe operating procedures for raising and lowering loads in aisles.
6. LPG for Lift Trucks
  - a. Discuss LPG and its properties.
  - b. Understand the elements and procedures of safely refueling internal combustion vehicles.
  - c. Describe tank components: service/surge/relief valves, etc.
  - d. Discuss related safety issues.
7. Battery and Charging
  - a. Understand the elements and procedures of safely changing and charging batteries.
  - b. Discuss filling procedures and maintenance.
  - c. Discuss related safety issues.
8. Safety Concerns
  - a. Review/reinforce potential of serious injury.
  - b. Review/reinforce specific work site safety procedures.

9. Specific Truck and Workplace Training/Hands-On
  - a. Review features of specific PIT's to be operated.
  - b. Review operating procedures of specific PIT's to be operated.
  - c. Review safety concerns of specific PIT's to be operated.
  - d. Review workplace conditions and safety concerns of areas where PIT's will be operated.
  - e. Learn/practice actual operation of specific PIT's to be operated and specific workplace conditions where PIT's will be operated.
  - f. Demonstrate proficiency performing the PIT operator duties specific to the trainee's position and workplace conditions.
10. Written Exam/Certification of Completion of the Course

## Daily Forklift Inspection

Y	N	NA
---	---	----

- |                          |                          |                          |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Overhead Guard</b> - Are there broken welds, missing bolts, or damaged areas?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Hydraulic Cylinders</b> - Is there leakage or damage on the lift, tilt, and attachment functions of the cylinders?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Mast Assembly</b> - Are there broken welds, cracked or bent areas, and worn or missing stops?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Lift Chains and rollers</b> - Is there wear or damage or kinks, signs of rust, or any sign that lubrication is required? Is there squeaking?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Forks</b> - Are they cracked or bent, worn, or mismatched? Is there excessive oil or water on the forks?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Tires</b> - What do the tires look like? Are there large cuts that go around the circumference of the tire? Are there large pieces of rubber missing or separated from the rim? Are there missing lugs? Is there bond separation that may cause slippage?                            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Battery Check</b> - Are the cell caps and terminal covers in place? Are the cables missing insulation?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Hydraulic Fluid</b> - Check level?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Gauges</b> - Are they all properly working?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Steering</b> - Is there excessive free play? If power steering, is the pump working?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Brakes</b> - If pedal goes all the way to the floor when you apply the service brake that is the first indicator that the brakes are bad. Brakes should work in reverse. Does the parking brake work? The truck should not be capable of movement when the parking brake is engaged. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Lights</b> - If equipped with lights, are they working properly?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Horn</b> - Does the horn work?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Safety seat</b> - If the truck is equipped with a safety seat is it working?   |

Corrective actions for this page:

---



---

Y	N	NA
---	---	----

- |                          |                          |                          |  |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Load Handling Attachments</b> - Is there hesitation when hoisting or lowering the forks, when using the forward or backward tilt, or the lateral travel on the side shift? Is there excessive oil on the cylinders?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Propane Tank</b> -Is the tank guard bracket properly positioned and locked down?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Propane Hose</b> - Is it damaged? It should not be frayed, pinched, kinked, or bound in any way. Is the connector threaded on squarely and tightly?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Propane Odor</b> - If you detect the presence of propane gas odor, turn off the tank valve and report the problem.  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Engine Oil</b> - Check levels.  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Engine Coolant</b> - Visually check the level. Note: Never remove the radiator cap to check the coolant level when the engine is running or while the engine is hot. Stand to the side and turn your face away. Always use a glove or rag to protect your hand. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Transmission Fluid</b> - Check levels?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Windshield Wipers</b> - Do they work properly?  |
| <input type="checkbox"/> | <input type="checkbox"/> |                          | <b>Seat Belts</b> - Do they work?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Safety Door</b> - (found on stand up rider models) Is it in place?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Safety Switch</b> - (found on stand up riding tow tractors) Is it working?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Hand guards</b> - (found on stand up riding tow tractors, walking pallet trucks, walking transtackers) Are they in place?   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Tow Hook</b> - Does it engage and release smoothly? Does the safety catch work properly?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Control Lever</b> - Does the lever operate properly?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Safety Interlock</b> - (found on order pickers) If the gate is open, does the vehicle run?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Gripper Jaws</b> - (found on order pickers) Do the jaws open and close quickly and smoothly?  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Work Platform</b> - (found on order pickers) Does the platform raise and lower smoothly?  |

Corrective actions for this page:

---



---

## Forklift Operators Test

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Multiple Choice

1. When handling a load that blocks your vision, you should:
  - A. Travel in reverse
  - B. Raise the load above eye level
  - C. Lean to the left and look around the load
  - D. Tilt the load slightly forward
2. Forklifts are engineered on the fulcrum principle. The load is balanced by the weight of the forklift. The \_\_\_\_\_ is the fulcrum.
  - A. Forks
  - B. Transmission
  - C. Front Axle
  - D. Rear Axle
3. When you add an attachment to a lift, you can usually lift:
  - A. More weight
  - B. Less Weight
  - C. Same weight, but at lower speeds
  - D. Has no effect on capacity
  - E. None of the above
4. To determine capacity of your lift, check the:
  - A. Service manual
  - B. Identification tag or Data tag
  - C. Load Chart
  - D. B and C
5. The rear end steering of lifts:
  - A. Causes rear end to swing more than an auto
  - B. Is about the same as an auto
  - C. Swings less than an auto
  - D. Allows sharp turns at high speed
6. What hazards exist around battery charging and refueling areas?
  - A. Fire and explosion
  - B. Eye injury hazards
  - C. Chemical Burns
  - D. All of the above

7. The rated capacity of your forklift may be exceeded:
  - A. When additional counterweights are added
  - B. If speed is kept under 5 mph
  - C. If lift is limited to 4 feet
  - D. Never
8. Forklifts should be inspected:
  - A. Weekly
  - B. Daily
  - C. Monthly
  - D. When they start to develop trouble
9. Who is responsible for keeping passengers off the forklift?
  - A. Superintendent
  - B. Safety Director
  - C. Forklift Operator
  - D. Foreman
10. Why should you keep hands and feet out of the mast assembly?
  - A. Danger of shock
  - B. Mast is greasy and can get you dirty
  - C. Movement of carriage or mast can cause crushing or amputation
  - D. You could damage the mast
11. Lifting personnel with a forklift is acceptable:
  - A. Worker is standing firmly on a pallet, wearing body harness with lanyard
  - B. Worker places both feet on one fork
  - C. Using a properly designed personnel platform, secured to forks, operator remains at the controls.
  - D. Never acceptable
12. Forklifts are MOST stable when:
  - A. Operated within their stability triangle
  - B. Operated with no load
  - C. When extra counterweights are added
  - D. Operated with a load, forks or mast tilted back
  - E. A and D



### True/False

- 13. T F When driving up or downhill, lift should be driven with load uphill.
- 14. T F Counterweights can be added to rear of lift to increase capacity.
- 15. T F Operator can hang leg outside operator's cage when protected by a wide load.
- 15. T F Never attempt to correct frame level condition with boom raised or extended.
- 16. T F Before operating a forklift, you must be trained and authorized.
- 17. T F Turning on an incline may cause a forklift to roll over.
- 18. T F Raising the load does not affect the stability triangle or center of gravity.
- 19. T F Wearing a seatbelt is optional if lift has a roll cage.
- 20. T F Forklifts are always stable when raising load within the rated capacity.
- 21. T F Underinflated tires reduce the lifting capacity.
- 22. T F Same weight can be lifted on the tip of the forks as can be lifted with the forks all the way under the load.
- 24. T F When loading a truck/trailer, wheels should be chocked if driver has set brakes.
- 25. T F Properly adjusted parking brake should hold when forklift is put in gear.

## TEST ANSWERS

1. A
2. C
3. B
4. D
5. A
6. D
7. D
8. B
9. C
10. C
11. C
12. E
13. T
14. F
15. F
16. T
17. T
18. T
19. F
20. F
21. F
22. T
23. F
24. T
25. T