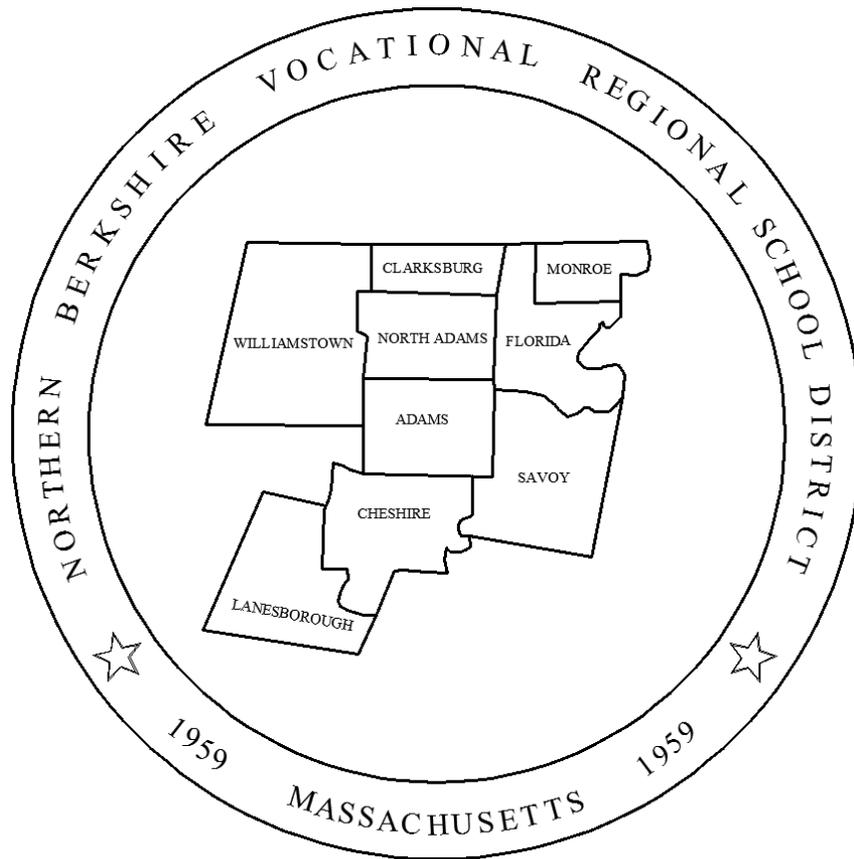


Northern Berkshire Vocational Regional School District

McCann Technical School



Health and Safety Manual

2023-2024

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Health and Safety Policy Statement

The vocational-technical school is a special and uniquely important part of the educational system. Nowhere else is the education that young people receive so directly related to their future, since the skills, attitudes, and work habits developed will be with them the rest of their lives. In addition to wanting a safe workplace for themselves, teachers are concerned about the safety of their students. Teachers clearly understand the impact that they can have on future workers. The personal safety of each student and employee of McCann Technical School is of primary importance. The prevention of occupationally induced injuries and illnesses is of such consequence that it will be given precedence over all other activities. To the greatest extent possible, we will provide all mechanical and physical facilities required for personal health and safety in keeping with the highest standards. We will maintain a safety and health program that conforms to the best practices of similar vocational-technical schools in the state and the country. To be successful, such a program must embody the proper attitudes toward injury and illness prevention, on the part of both students and staff. It also requires cooperation in all safety and health related matters between student and teacher, teacher and administrator, and also between each student and his/her fellow students. Only through such a cooperative effort can a safety program, in the best interest of all, be established and preserved.

Health and Safety Policy Procedures

GENERAL INSTRUCTOR RESPONSIBILITIES

1. The instructor must provide adequate supervision in the classroom, shop/lab area or work site at all times when class is in session.
2. It is the instructor's responsibility to make sure that all safety policies and procedures are being followed and ensure compliance with all applicable laws and regulations.
3. The instructor will consistently demonstrate good safety practices at all times. As a role model, the instructor has a significant impact on the positive or negative safety attitudes and habits that students acquire.
4. The instructor will test all students on all hazardous tools, machines, materials and procedures at least once per school during the first semester.
5. Tests will be written and performance based and a passing test score on any and all safety tests will be 100%.
6. The instructor will perform regular inspections to ensure that all hand tools, portable power tools and stationary machines are in good working condition at all times. Power tools and machines must be properly guarded, with the guards in place and in use whenever the power tools or machines are in operation.
7. The instructor will provide periodic reviews of safety procedures on hazardous equipment, tools and materials in their department.
8. Instructors must exercise diligence and remain alert to the obstruction of safety emergency equipment and supplies including fire extinguishers, eyewash stations, emergency shut-off buttons, fire blankets, first aid kits, drenching showers and other safety items that could require quick access in the case of an emergency.
9. The instructor must lock all doors when leaving the shop/lab.
10. The principal must be notified in writing of any unsafe conditions that cannot be remedied immediately by the instructor and together, working with the facilities department, they will coordinate and ensure remediation.

GENERAL STUDENT SAFETY

- No student is to operate any piece of equipment unless that student has been thoroughly and formally checked out on its use and function, including safe and proper operation. In addition, records must be kept on file in the shop/lab documenting scores of 100% in both written and performance testing.
- Sophomore, junior and senior students must be given safety review lessons upon returning to school each fall. In addition, records must be kept on file in the shop/lab documenting student participation in the fall review lessons.
- The student's level of proficiency in competencies/tasks associated with safety should also be reflected on his/her individual competency profile record.
- Students must be supervised closely to insure that the equipment is operated correctly and that instructions are being followed meticulously.
- Safety procedures must be reviewed periodically during the school year with the entire class to prevent carelessness fostered by overconfidence or forgetfulness.

• **Eye and face protection:**

Proper eye and face protection shall be worn at all times:

- Advanced Manufacturing Technology
- Automotive Technology
- Carpentry
- Electrical
- Metal Fabrication

Only wear glasses while working with any hazardous tools or materials:

- Information Technology
- Culinary Arts
- Science Labs
- Cosmetology
- Dental Assisting
- Medical Assisting
- Practical Nursing
- Surgical Technology

Glasses are not required:

- Business Technology
- Computer Assisted Design

- Students must wear appropriate eye/face protection whenever working with or handling chemicals or any hazardous materials while in any shop or laboratory.
- Clothing, including footwear, must conform to industry safety standards. Loose clothing may not be worn around moving machinery or when climbing on ladders or working on staging.
- Long hair is not allowed around moving machinery or food preparation.
- Loose jewelry may not be worn around moving machinery.
- Instructional spaces will be cleaned as needed to keep them from becoming cluttered with tools and debris.
- OSHA regulations prohibit the use of compressed air on the body. Therefore, compressed air cannot be used to blow dust, etc. off clothing. In addition, the air pressure to all air nozzles must be reduced to less than of 30 psi.
- Students who request restricted or limited duty because of medical reasons must bring a physician's note to the school nurse for evaluation.

LOCK-OUT/TAG-OUT

Lock-out/tag-out is an essential safety procedure that protects workers from injury while working on or near electrical circuits and equipment. Lock-out involves applying a physical lock to the power source(s) of circuits and equipment after they have been shut off and de-energized. The source is then tagged out with an easy-to-read tag that alerts other workers in the area that a lock has been applied. In addition to protecting workers from electrical hazards, lock-out/tag-out prevents contact with operating equipment parts: blades, gears, shafts, presses, etc. Also, lock-out/tag-out prevents the unexpected release of hazardous gasses, fluids, or solid matter in areas where workers are present.

Lock-out/tag-out procedures must be followed whenever a piece of equipment is being serviced or repaired in order to guaranty that the piece of equipment remains de-energized at all times. Please adhere to the following procedures when performing lock-out/tag-out on circuits and equipment:

- Identify all sources of possible energy release (electrical, pneumatic, hydraulic, spring, gravity, etc.) for the equipment or circuits in question that must be disabled and Locked-out/Tagged-out before any work proceeds.
- Disable backup energy sources such as generators and batteries.
- Identify all shut-offs for each energy source.
- Notify all personnel that equipment and circuitry must be shut off, locked out, and tagged out. (Simply turning a switch off is NOT enough.)
- Shut off energy sources and lock switchgear in the OFF position. Each worker should apply his or her individual lock. Do not give your key to anyone.
- Test equipment and circuitry to make sure they are de-energized. This must be done by a qualified person.
- Deplete stored energy by bleeding, blocking, grounding, etc.
- Apply a tag to alert other workers that an energy source or piece of equipment has been locked out.
- Make sure everyone is safe and accounted for before equipment and circuits are unlocked and turned back on.
- Note that only a qualified person may determine when it is safe to re-energize circuits and OSHA defines a "qualified person" as someone who has received mandated training on the hazards and on the construction and operation of equipment involved in a task.

ACCIDENT/INJURY PROCEDURES

- Send for appropriate medical assistance immediately.
- Apply only immediate first aid that is essential and nothing further.
- If a fragment enters the eye, immobilize the eye by covering it with a sterile compress and obtain medical assistance immediately. Under no circumstances should anyone, except a medical professional, attempt to remove a fragment from an eye.
- If an acid or an alkali chemical has injured an eye, immediately irrigate with water for at least 15 minutes and obtain medical assistance.
- Notify an administrator as soon as practically possible.
- If a student sustains a minor injury that requires immediate medical attention, send the injured student to the nurse's office accompanied by a teacher or another student. Never send an injured student alone.
- If a student sustains a small splinter or insignificant cut, s/he may be sent alone (with a pass) to the school nurse for treatment.

ACCIDENT REPORTING AND INVESTIGATION

- Instructors will report all injuries (to students, staff members or visitors) both major and minor, to the school nurse. Accident report forms must be filled out and filed with the school nurse for processing. Final copies will be forwarded to the school nurse, and the principal or designee.
- Instructors shall ascertain the cause of the accident, and after careful analysis of all known facts, make recommendations, to the principal and school nurse, that will eliminate the possibility of a similar accident occurring in the future.
- The principal will review all accident reports and initiate investigations as necessary.

SCHOOL NURSE

The school nurse is the primary full-time medical professional and care giver on staff during school hours. All accidents, injuries and illnesses must be reported to her and she will record and keep records on file. In addition, the school nurse is responsible for regularly arranging with all vocational-technical areas to replenish first aid supplies.

UNIVERSAL BLOOD PRECAUTIONS

Universal precautions refer to the usual and ordinary steps all school staff needs to take in order to reduce their risk of infection with HIV, the virus that causes AIDS, as well as other blood-borne organisms (such as Hepatitis B virus). They are universal because they refer to steps that need to be taken in all cases, not only when a staff member or student is known to be HIV infected. They are precautions because they require foresight and a bit of planning and should be integrated into all general safety and wellness guidelines.

- Treat blood with respect.
- Trained personnel will clean up all blood spills promptly.

- Inspect the intactness of your skin on all exposed body parts, especially the hands. Cover any and all open cuts or broken skin or ask another staff member to do the cleanup. Latex gloves add another layer of protection but are not essential if your skin is intact.
- Blood spills will be cleaned with a 10% bleach solution (ie. 1/4 cup bleach into 1 gallon water). Any materials (paper towels, etc.) should be placed in a red hazard bag (available from nurse) and discarded.
- Always wash your hands after any contact with body fluids. This will be done immediately in order to avoid contaminating other surfaces or parts of your body (be especially careful not to touch your eyes before washing up).
- Other body fluid spills (urine, vomit and feces), unless grossly blood contaminated, need only be cleaned up in the usual manner. They do not pose a significant risk of HIV infection. Apply a covering of some sort (gauze, paper towel, etc.) before a student exits the shop/lab/class to prevent blood spillage.

RECORD KEEPING

Accurate and comprehensive record keeping is essential to a quality health and safety program. Records will be kept and maintained as follows:

- No student is to operate any piece of equipment unless that student has been thoroughly and formally checked out on its use and function, including safe and proper operation. In addition, records must be kept on file in the shop/lab documenting scores of 100% in both written and performance testing.
- Sophomore, junior and senior students must be given safety review lessons upon returning to school each fall. In addition, records must be kept on file in the shop/lab documenting student participation in the fall review lessons.
- The student's level of proficiency in duties/tasks associated with safety should also be reflected on his/her individual competency profile record.
- All accident reports (students/staff/visitors) filed with the school nurse.
- Hazardous substance inventory list and MSDS sheets on file in each shop/lab and also in the facilities office.
- Hazardous substance waste disposal records kept on file with the facilities department and in the business office.
- Agenda's and minutes of all safety committee meetings kept on file in the vocational coordinator's office.

TRAINING

Training and education is significantly important to the successful implementation and continued maintenance of any "Health and Safety Plan." Every effort will be made to facilitate and encourage:

- Industry recognized health and safety certificates and/or credentials for instructional staff and students.
- Development of high quality health and safety curriculum and resources.
- Participation in training in the basics of occupational health and safety, first aid, CPR, Right to Know, fire extinguisher use, OSHA standards, hazardous substances, etc.
- The creation of a health and safety resource and reference library within the school.

FLOOR PLAN LAYOUT

Each vocational-technical area will have a scaled floor plan showing the location of all equipment, work stations, electrical panels, air and/or gas shut offs, emergency power shut offs, fire extinguishers, smoke detectors, fire alarms, eye wash stations, fire blankets, first aid kits as well as safe, unobstructed, and clearly marked passage aisles on file with the vocational coordinator. There will be no changes to the "Floor Plan Layout" without written approval and the filing of the updated amended plan. All safety items shall be conspicuously located and clearly identified.

OUTSIDE VISITORS AND/OR CUSTOMERS

All visitors must register in the school office where they will be issued safety glasses if they are visiting an eye hazard area. Visitors must conform to the eye protection requirements of the shop/lab being visited; they will remain in a designated area that is a safe distance from any work being performed. Under no condition, is it permissible for visitors to perform work in a shop/lab. **Customers visiting automotive, cosmetology, or the Tea Room dining room do not have to register in the school office.**

Health and Safety Team and Committees

The Health and Safety Committee will set and prioritize objectives that are consistent with the general mission of vocational-technical education and the mission of McCann Technical School. These objectives should address such things as:

- Gaining and maintaining support for the health and safety program among students, teachers and administrators.
- Establishing annual and long-term goals with respect to health and safety in the school.
- Motivating, educating and training all program members to recognize, report and correct hazards located in their clusters or departments.
- Engineering the control of hazards into the inherent design of machines, tools, and shop facilities.
- Establishing a program of inspection and maintenance for machinery, equipment, tools, and shop facilities in order to ensure compliance to applicable standards.
- Incorporating hazard control techniques into school training and educational curriculum.
- Meeting and exceeding all relevant health and safety standards.
- Keeping the focus of the committee on the issue of occupational health and safety. Additional committees may have to be formed to devote adequate time and attention to other school-wide safety issues.

SAFETY TEAM

The safety team will be comprised of key administrative personnel and will be responsible for overseeing and coordinating all aspects of the health and safety plan including implementation, decision-making, files and records, budgeting issues, evaluation inspections, and a health and safety resource library. This committee will meet when school is in session and as needed. The safety team members are: Superintendent, principal, maintenance supervisor, and school nurse.

HEALTH AND SAFETY COMMITTEE

The safety committee will initially be comprised of the members of the safety team, as well as staff representatives from vocational-technical clusters and/or specific programs. The health and safety committee will be responsible for providing input to the safety team as representatives of their respective programs and clusters; in addition, they will also be responsible for providing outreach to each program and grade level within their clusters. Committee members will also participate in training opportunities focusing on health and safety issues as well as health and safety evaluation inspections of various programs.

NIOSH Safety Program for Schools (CD)

In the summer of 2003, the National Institute for Occupational Safety and Health (NIOSH) published a very comprehensive and easy to use health and safety checklist program for schools. It is available at <http://www.cdc.gov/niosh/docs/2004-101/chap4.html> and is a key resource component of the McCann Technical School Health and Safety Plan.

In English, en Español

24 Hours/Day, 7 Days/Week

To take a free OSHA online Hazardous Communications Training Course click on the link below.

<http://www.free-training.com/osha/hazcom/hazmenu.htm>

Contact NIOSH:

Inside the U.S. 1-800-CDC-INFO (1-800-232-4636)

Outside the U.S. 1-513-533-8328

Email: cdcinfo@cdc.gov

Website: www.cdc.gov

TTY: 1-888-232-6348

Fax: 1-513-533-8347

Safety and the Law

Massachusetts General Laws: Chapter 71. PUBLIC SCHOOLS.
Chapter 71: Section 55C. Eye protection devices.
<http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleXII/Chapter71>

Requires teachers, students and visitors to wear industrial quality eye protective devices in all vocational shops/labs in which dangerous processes are taught exposure to which may be a source of danger to the eyes. Chapter 71: Section 55C. Eye protective devices

Section 55C. Each teacher and pupil of any school, public or private, shall, while attending school classes in industrial art or vocational shops or laboratories in which caustic or explosive chemicals, hot liquids or solids, hot molten metals, or explosives are used or in which welding of any type, repair or servicing of vehicles, heat treatment or tempering of metals, or the milling, sawing, stamping or cutting of solid materials, or any similar dangerous process is taught, exposure to which may be a source of danger to the eyes, wear an industrial quality eye protective device, approved by the department of public health. Each visitor to any such classroom or laboratory shall also be required to wear such protective device.

Massachusetts General Laws: Chapter 74. VOCATIONAL EDUCATION.
603 CMR 4.00: Vocational Education
<http://www.doe.mass.edu/lawsregs/603cmr4.html?section=03>

03 Program Approval Criteria Each school district requesting approval of a vocational technical education program shall demonstrate that the program meets the following approval criteria:

Subsection 3 (d) The school shall develop and implement a comprehensive safety and health plan to safeguard the safety and health of all students and school personnel. The regulations of the Occupational Safety and Health Administration (OSHA) governing work sites shall serve as the minimum standards for safety in the vocational technical education program. The plan should include provisions for safety inspections of all facilities, safety training for all students and staff and the use, storage and disposal of toxic and hazardous materials.

Subsection 4 (a) The program of study shall:
Include a comprehensive safety and health plan, which includes safety training for all students and staff (McCann implemented OSHA 10 Hour Card/Careersafe)

Massachusetts General Laws: Chapter 111F. HAZARDOUS SUBSTANCES DISCLOSURE
Right To Know Law
<http://www.mass.gov/lwd/labor-standards/occ-safety-and-health/right-toknow.html>

There are two laws that give employees the right to information about the chemicals that they may be exposed to on the job. They are the federal Hazard Communication Standard (enforced by OSHA) and the Massachusetts Right To Know Law. The OSHA Hazard Communication Standard requires that any supplier of a hazardous substance, as defined by the Standard, provide a Material Safety Data Sheet (MSDS) to all users. They must also provide all updates as they become available. The Massachusetts law was passed so that workers and community residents can obtain information about hazardous substances to which they may be exposed. These laws are an essential first step in controlling hazardous conditions. The key features are:

- Containers in the workplace must be properly labeled.
- Suppliers are required by law (MGL 470) to furnish MSDS sheets for all substances on the Massachusetts Substance List.
- Workers can get hazard information about substances on forms called Material Safety Data Sheets (MSDS's).
- Employers must train employees before they are exposed, and annually thereafter.
- Physicians can get MSDS's from employers, at the request of the employee.
- (See Right To Know Poster – Appendix D) -<http://www.mass.gov/lwd/docs/dos/rtk/rtk-poster.pdf>

Massachusetts General Laws: CHAPTER 265: Section 13L. RECKLESS ENDANGERNMENT TO CHILDREN

(Approved On 9/12/02 – Massachusetts Acts of 2002: Chapter 322)
<http://www.state.ma.us/legis/laws/seslaw02/sl020322.htm>

Whoever wantonly or recklessly engages in conduct that creates a substantial risk of serious bodily injury or sexual abuse to a child or wantonly or recklessly fails to take reasonable steps to alleviate such risk where there is a duty to act shall be punished by imprisonment in the house of correction for not more than 2½ years.

For the purposes of this section, such wanton or reckless behavior occurs when a person is aware of and consciously disregards a substantial and unjustifiable risk that his acts, or omissions where there is a duty to act, would result in serious bodily injury or sexual abuse to a child. The risk must be of such nature and degree that disregard of the risk constitutes a gross deviation from the standard of conduct that a reasonable person would observe in the situation.

Appendix A – Sample Student Safety Record

A student safety record must be kept on each student in every vocational technical area of instruction documenting the safety instruction and training that he or she has received. The student safety record must contain, at a minimum, the following components:

1. Area specific student safety training log
2. Area specific safety rules and information sheet
3. Area specific written safety tests documenting a score of 100%. Please note that there must be several different versions of the written safety test so that students are not taking the same test when they do not pass with 100%.
4. Performance tests documenting a score of 100% with student acknowledgement statement.

McCann Technical School

Program Student Safety Training Log

Shop: _____

Student's Name: _____

GENERAL SAFETY						
Item / Tool / Equipment	ENTER DATE COMPLETED					
	Teacher Demonstration	100% Written Test	100% Performance Test	10 th Grade Review	11 th Grade Review	12 th Grade Review
General Shop						
Housekeeping						
Emergency Procedures						
Personal Protective Equipment (PPE)						
Eyewash Stations						
Fire Safety						
Emergency Shut Offs						
Hazard Communication						
Material Safety Data Sheets (MSDS)						
Hazardous Materials Handling						
Hand Tools						
PORTABLE POWER TOOLS						
STATIONARY POWER MACHINES AND EQUIPMENT						

Appendix B – McCann Technical Program Quick-Reference Checklist

CVTE Program Name: _____ Conducted by: _____ Date: _____

This Quick-Reference Checklist is intended to be a general cursory reference list of items that must be checked on a regular basis. The NIOSH Safety Checklist Program for Schools can be found at <http://www.cdc.gov/niosh/docs/2004101/>. The website provides a more detailed and comprehensive checklist of safety compliance items and is the primary resource for this plan.

1. PERSONAL PROTECTIVE EQUIPMENT

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are respirators provided and used when necessary?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there written standard operating procedures for the use of respirators?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Where practical are respirators assigned for use by one person only?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are respirators inspected and disinfected after use?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are respirators stored in a convenient, clean, and sanitary location?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are respirators checked for proper fit?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are positive pressure respirators provided for people with beards?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there attachments for eyeglasses on full-face respirators?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the proper respirator in use for the hazard present? (For example, dust cartridges do not protect against solvent vapors.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are approved respirators provided and worn during chemicals handling, grinding, buffing, etc.?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is foot protection worn to prevent injuries from punctures and falling objects?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are properly fitting gloves worn where necessary to help avoid cuts?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are gloves worn, with the proper chemical resistance, when handling chemicals?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are hard hats required where falling objects could be a hazard?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all people provided with high quality eye protection equipment, including safety glasses, as required by Massachusetts General Law Chapter 71 Section 55C?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is lighting good for the work being performed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are colors of rooms and work surfaces easy to work with in terms of contrast brightness, etc.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are eye wash stations provided and are they easily accessible? Are they tested weekly?

2. HAND AND PORTABLE POWER TOOLS/EQUIPMENT

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are tools and equipment in good condition?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have chisels, punches, etc., with mushroomed heads been reconditioned or replaced if necessary.

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have broken hammer handles been replaced? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have worn or bent wrenches been replaced? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the use of compressed air to blow away debris from clothing or the body prohibited, because the air can enter the body and cause serious harm? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have deteriorated air hoses been replaced? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has compressed air used for cleaning been reduced to less than 30 psi? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are portable abrasive wheels appropriately guarded in accordance with OSHA regulations and manufacturers guidelines? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are meat-cutting knives properly stored in openings, on the side or back of the table, when not being used? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all cutting tools sharp so that they cut smoothly and easily? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all portable power hand tools grounded? (Only double insulated tools are acceptable without grounding.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are tools selected that produce a minimum of vibration and not at the frequencies most dangerous to the hand (25-150 Hz)? |

3. STUDENT HEALTH AND SAFETY INSTRUCTION

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are students provided with written instructional information on all health and safety aspects of this course of study? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are students required to pass written knowledge tests on all health and safety aspects of this course of study? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are students provided with hands on instruction on all health and safety aspects of this course of study? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are students required to pass performance tests based on industry standards on all aspects of health and safety for this program of study? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are records maintained documenting both written and performance test results? |

4. MACHINE GUARDING (IN ACCORDANCE WITH OSHA REGULATIONS)

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are belts, pulleys, and rotating shafts guarded? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are chains, sprockets, and gears guarded in accordance with OSHA regulations? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all in-going nip points, such as conveyor belts, guarded in accordance with OSHA regulations? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are saw blades and grinding wheels guarded in accordance with OSHA regulations? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all rotating parts recessed or covered with collars? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is all fixed machinery securely anchored to prevent movement? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are alligator shears and notches provided with guards at the point of operation to prevent people's hands from being inserted into the danger zone? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are the pedals of foot-operated hydraulic shears guarded to prevent accidental operation? |

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are sprockets and belt drives completely enclosed where they are within reach of platforms and passageways or less than seven feet from the floor? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all guards permanent parts of the equipment? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are guards adequately maintained and kept in good repair? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are controls, such as magnetic switches, in place to prevent accidental start up? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do guards make it more difficult to use the machine, thus encouraging circumvention? |

5. HOUSEKEEPING

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are work areas clean and orderly? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are equipment and materials kept out of aisles? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are spilled liquids wiped up? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all areas adequately illuminated? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are permanent aisles properly marked? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are wet or greasy areas covered with non-slip materials? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are platforms, storage lofts, balconies, etc. that are more than four feet above the floor protected with standard guardrails? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all platforms, lofts, and balconies (where people or machinery below could be exposed to falling objects) guarded with standard toe boards? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are portable ladders and climbing devices adequate for their purpose, in good condition, and provided with secure footing? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have defective ladders (e.g. broken rungs, side rails, etc.) been tagged as "DANGEROUS, DO NOT USE" and removed from service for repair or destruction? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the use of the top two steps of any stepladder prohibited? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do portable ladders have non-slip bases? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is damp mopping or vacuuming used for cleanup of dry materials to avoid generating dust? |

6. SANITATION

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do students wash their hands prior to eating and drinking? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are students prohibited from eating and drinking in areas where toxic materials are present? |

7. ERGONOMICS

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do people working on equipment experience pain, swelling, numbness, tingling, redness or other discomfort of any joint or muscle?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there tasks that involve heavy or frequent lifting?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does any task require maintaining one position for long periods of time?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do tasks involve rapid, repetitive motion?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does any task involve working in an awkward position?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the arm have to be held at or above shoulder height?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the back have to be twisted or bent forward?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do parts or tools have to be held with a pinch, instead of a full power grip?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does tool design and work location allow work to be done with the wrists straight and the hands in a comfortable position?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are tool handles at least 1" diameter, preferable 1 1/2" with a non-slip coating?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does anyone have to stretch the hand completely open in order to grasp a part or tool?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do tool handles have grooves or edges that press on nerves and other soft tissues of the hand?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does any part of the body have to lean on sharp edges or hard surfaces that might compress the skin and nerves underneath?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do tools vibrate in the hands while in use? (This can cause vibration-induced feeling loss.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does any pneumatic tool blow cold exhaust air onto the hand holding the tool?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is work done for long periods of time without breaks?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are gloves available in a wide range of sizes to fit everyone well?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are people encouraged to adjust the equipment and work methods to make them as comfortable as possible for each individual?

8. CHEMICAL STORAGE AND HANDLING

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are chemical liquids kept in closed containers when not in use?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all spills of flammable or combustible liquids cleaned up promptly, properly and are cleaning materials disposed of properly?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are gasoline and other flammable liquids stored in approved U.L. containers?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is combustible waste material stored in covered metal receptacle and disposed of daily?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do storage rooms for flammable and combustible liquids have explosion-proof lights?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do storage rooms for flammable and combustible liquids have mechanical or gravity ventilation (at least six air changes per hour)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are storage cabinets for flammable liquids labeled "FLAMMABLE-KEEP FIRE AWAY"?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are bulk drums of flammable liquids grounded and bonded to containers during dispensing (bonding and grounding entails forming an electrical connection between the two containers and to ground or zero voltage in order to eliminate sparking)?

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are chemicals which can produce toxic vapors stored in hoods or vented cabinets? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is there a written plan for dealing with spills and other chemical emergencies? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Has the emergency plan been practiced during training of all student participants? |

9. COMPRESSED GAS CYLINDERS

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are there cuts or abrasions on the cylinder? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are cylinders, empty or full, secured against falling or hitting each other during storage, use and transportation? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are empty cylinders marked with the word "EMPTY" or "MT"? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are valves on oxygen tanks kept immaculately clean from grease and oil? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all cylinders labeled correctly? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are oxygen cylinders in storage separated from fuel-gas cylinders or combustibles (especially oil or grease), a minimum of 20 feet or by a non-combustible wall at least 5 feet high with a fire resistance rating of at least 1/2 hour? |

10. ELECTRICAL

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are live electrical components isolated from workers so that they cannot be touched? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are extension cords prohibited from use as a replacement or substitute for fixed wiring? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is insulation on flexible wiring in good condition? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is all electrical equipment grounded? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are over current devices such as a ground fault interrupter, fuses and circuit breakers in place for electrical equipment? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do any tools run hot or give off minor shocks, which may be an indication of potential trouble? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are electrical tools kept out of wet and hot places? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is there an emergency power disconnect system that instantly shuts the power off for the entire area? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are electrical panels locked at all times? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is power disconnected and doors locked when there is no one in the area? |

11. CHEMICAL LABELING AND RIGHT TO KNOW

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do you have an up to date inventory list of all chemicals stored and/or used?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are chemical containers labeled with name, hazards, and the manufacturer, and do they otherwise meet Right to Know law labeling requirements?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are up-to-date MSDS's available for all chemicals used?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do all personnel have access to MSDS information?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there less toxic or non-toxic substances that can replace toxic or hazardous substances now in use?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Until safer substances are introduced, are all people working with a hazardous substance trained in the dangers and proper procedures and protection methods for the specific chemicals used?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are people who have become sensitized (i.e. hyper-allergic) to a particular chemical protected by eliminating all potential for exposure?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Until safer substitutes are introduced are all people incidentally, but not directly, exposed to hazards told of the dangers and trained in the proper protection needed around the chemicals (i.e. clerical and custodial staff)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are waste chemicals disposed of in accordance with all federal, state and municipal laws and regulations?

12. MEDICAL AND FIRST AID

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are first aid supplies readily available, inspected, and replenished?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is at least one person always present who is qualified to render first aid?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a phone readily available in case of emergency?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are emergency phone numbers posted?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Where people may be exposed to corrosive materials, are they provided with quick drenching and flushing facilities for immediate emergency use?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are symptoms experienced by people in the shop environment reported and kept on file at the school as well as the individual's doctor?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all injuries reported and filed as a record with the school nurse?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the report include an assessment of the cause?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have instructors been notified of student medical conditions and/or medications that may have health and safety ramifications?

13. VIDEO DISPLAY TERMINALS (VDT'S)

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the VDT quiet with a matte finish that does not reflect light?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can the monitor be adjusted for brightness and contrast?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the monitor maintain a 1 1/2 to 2 foot distance from your eyes?

- Is the keyboard comfortable to work at with wrists flat (not bent up or down) when typing?
- Is the screen etched or treated to reduce glare, or has an effective glare shield been provided if necessary?
- Are the characters steady on the screen, no flicker?
- Are chairs easily adjustable for seat height?
- Are chairs adjustable to keep feet flat on the floor, thighs and forearms parallel to the floor, with hips, knees, and elbows at right angles, and wrists flat?
- Can the monitor be positioned so that the top of the screen is at or below eye level?
- Is a mechanism provided to hold paper copy at the same distance from your eyes as the monitor?
- Is the overhead lighting dim and indirect or covered with textured fixtures so as not to create glare on the monitor screen?
- Are there blinds or drapes to block direct window light that causes glare?
- Are the nearby walls and/or surfaces a non-reflective color to prevent glare?
- Are adequate breaks provided during VDT work to prevent health problems? (NIOSH recommends 15 minutes after 2 hours of continuous work and 10 minutes after 1 hour of intense work.)

Appendix C – McCann Tech Plant and Facilities Quick-Reference Checklist

CVTE Program Name: _____ Conducted by: _____ Date: _____

This Quick-Reference Checklist is intended to be a general cursory reference list of items that must be checked on a regular basis. The “NIOSH Safety Checklist Program for Schools” can be found at <http://www.cdc.gov/niosh/docs/2004-101/>. The website provides a more detailed and comprehensive checklist of safety compliance items and is the primary resource for this plan.

1. FIRE PREVENTION/FIRE EXTINGUISHERS (VERIFIED BY LOCAL FIRE DEPARTMENT INSPECTIONS)

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are portable fire extinguishers provided in adequate number and type? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are portable fire extinguishers fully charged and operable? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are portable fire extinguishers conspicuously located and accessible? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are portable fire extinguisher locations not obstructed or blocked? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are fire extinguishers recharged regularly and recorded on inspection tag? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have all extinguishers been hydrostatically tested according to schedules set for the type of extinguisher? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are fire blankets or deluge showers provided and readily accessible? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have interior standpipes and valves been regularly inspected? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the fire alarm system tested at least annually (law for schools)? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have teachers and students been regularly trained in the use of extinguishers and fire protection procedures? |

Automatic sprinklers:

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are water control valves, air and water pressure checked regularly? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are control valves locked open? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are sprinkler heads protected? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are flammable or combustible liquids disposed of in special containers approved for such use? |

2. EXIT AND EXIT MARKINGS

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all exits marked with an exit sign and illuminated by a reliable light source? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is lettering at least six inches high with the principle letter strokes at least 3/4 of an inch wide? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the direction to the exit, when not immediately apparent, marked with visible signs? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are doors or other passageways that are neither exits nor access to an exit and located where they may be mistaken for exits, appropriately marked “NOT AN EXIT”, “TO BASEMENT”, etc.? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are all doors that must be passed through to reach an exit always free to access with no possibility of a person being locked inside? |

- Are all exit routes always kept free of obstructions?

3. LOCK OUT - TAG OUT

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all maintenance people given a good lock, labeled with their name, and having only one key that they possess?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prior to turning off the power on a machine are people working on it alerted and completely off the machine?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all air, hydraulic and steam lines drained so there is no pressure in lines of reservoir tanks?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all mechanisms under tension or pressure released or blocked?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do all people working on the machine put their lock on the machine and leave it there until the work is completed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all energy systems that could activate the machine locked out?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the main valve or electrical disconnect tested to be sure that the power is off?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are electrical circuits checked with appropriate equipment? Is stored energy in capacitors relieved?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all rams that could fall, such as on power presses, supported with safety blocks or pins?

4. INDOOR AIR AND VENTILATION

<u>Yes</u>	<u>No</u>	<u>N/A</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a ventilation system that draws air from the room and supplies fresh make up air?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there frequent complaints of headaches, allergies, nausea and drowsiness that seem to happen only when people are at the school or are in certain rooms?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there someone who is responsible for maintenance and operation of the ventilation system?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there written standard operating procedures for the ventilation system?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What percent of the air supplied as make up air is drawn from outside the building and how much is recirculated (the air should be 35% or more from outside)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do filters clean air before it is supplied to the rooms?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are filters checked regularly and replaced when they become clogged or damaged?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How many changes of air per hour does the ventilation system supply (between 6 and 60 changes per hour is considered normal for air in rooms that do not generate toxic contaminants)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is "fresh air" drawn from a location free from sources of contamination such as automobile exhaust and other work areas?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are drafts created by the ventilation system (i.e. doors being pulled shut by drafts)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the fan for the ventilation system in backwards (centrifugal fans will work at only one-half capacity if installed backwards)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there vents located at all processes that generate toxic dusts, fumes, vapors or mists that draw the contaminant away from the breathing zone of the person working there?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have vents and hoods been checked to ensure that they draw enough air to pull contaminants into the ventilation system?

5. SANITATION

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are restrooms and washrooms kept in clean and sanitary condition? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are emergency showers and eyewashes provided and maintained? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are waste chemicals disposed of in accordance with all federal, state and municipal laws and regulations? |

6. NOISE

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If a noise problem is suspected, have noise levels been accurately measured? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If a noise problem exists, have plans to reduce the noise level by engineering methods been formulated (e.g. enclosure, maintenance, alternate processing methods)? |

If engineering methods cannot reduce the noise to safe levels:

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have administrative controls, such as limiting exposure in a given area, been started? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are exposed people given annual audiometric tests? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do all people in high noise areas wear hearing protection? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are annual noise surveys made to reevaluate the problem? |

7. LOFT/OVERHEAD STORAGE/WORK AREAS

- | <u>Yes</u> | <u>No</u> | <u>N/A</u> | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do elevated storage/work areas have appropriate railings and toe boards? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is appropriate safe access provided to the elevated storage/work areas? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If ladder access is provided does it conform to OSHA requirements? |

Appendix D – Health and Safety Resources

- ❖ **U.S. DEPARTMENT OF LABOR – OSHA**
<http://www.osha.gov/>
 - OSHA Outreach Training Program
http://www.osha.gov/fso/ote/training/outreach/training_program.html
 - OSHA 10-hour Construction Industry Safety Training Program
<http://www.osha.gov/fso/ote/training/outreach/construction.pdf>
 - OSHA 10-hour General Industry Safety Training Program
<http://www.osha.gov/fso/ote/training/outreach/general.pdf>
 - OSHA Publications and Posters
<http://www.osha.gov/pls/publications/pubindex.list>
 - OSHA Multimedia
<http://www.osha.gov/SLTC/multimedia.html>
 - OSHA eTools and Electronic Products
<http://www.osha.gov/dts/osta/oshasoft/index.html#PowerPointPresentations>

- ❖ **MASSACHUSETTS DIVISION OF OCCUPATIONAL SAFETY**
<http://www.state.ma.us/dos/index.htm>
 - Massachusetts Right to Know Law
<http://www.state.ma.us/dos/pages/RTK.htm>

- ❖ **CENTER FOR DISEASE CONTROL AND PREVENTION**
<http://www.cdc.gov>
 - CDC – Health and Safety Manuals
<http://www.cdc.gov/od/ohs/manual/mannav.htm>

- ❖ **NIOSH – NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH**
<http://www.cdc.gov/niosh/homepage.html>
 - Construction
<http://www.cdc.gov/niosh/topics/construction/default.html>
 - Occupational Safety and Health Topic List
<http://www.cdc.gov/niosh/toplst.html>

- ❖ **WASHINGTON STATE – SAFETY GUIDE FOR CAREER AND TECHNICAL EDUCATION**
<http://www.k12.wa.us/CareerTechEd/resources.asp>

MASSACHUSETTS RIGHT TO KNOW LAW

<http://www.state.ma.us/dos/pages/RTK.htm>

NIOSH – NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

<http://www.cdc.gov/niosh/homepage.html>

NIOSH – MSDS Web Links and Related Sites

<http://www.cdc.gov/niosh/msds.html>

NIOSH – Chemical Safety

<http://www.cdc.gov/niosh/topics/chemical-safety/default.html>

NIOSH – Respirators

<http://www.cdc.gov/niosh/respinfo.html>

U.S. DEPARTMENT OF LABOR – OSHA

<http://www.osha.gov>

OSHA Hazard Communications

<http://www.osha.gov/SLTC/hazardcommunications/index.html>

OSHA Hazardous and Toxic Substances

<http://www.osha.gov/SLTC/hazardoustoxicsubstances/index.html>

OSHA Hazardous Waste

<http://www.osha.gov/SLTC/hazardouswaste/index.html>

OSHA/NIOSH/DOE Chemical Guidelines

<http://www.osha.gov/SLTC/healthguidelines/index.html>

Appendix E – Safety Credentials and Licenses

CONSTRUCTION

- OSHA 10-hour Construction Outreach Training Program (Never Expires)
- OSHA 30-hour Construction Outreach Training Program (Never Expires)
- OSHA Course 500 Construction Train-the-Trainer Course (Expires after 4 Years)
- Manufacturer Specific Powder Actuated Tool Operator's License

GENERAL INDUSTRY

- OSHA 10-hour General Industry Outreach Training Program (Never Expires)
- OSHA 30-hour General Industry Outreach Training Program (Never Expires)
- OSHA Course 501 General Industry Train-the-Trainer Course (Expires after 4 Years)

FOOD INDUSTRY

- ServSafe Certificate issued by the National Restaurant Association

Appendix F – Laws and Regulations

GENERAL LAWS OF MASSACHUSETTS

PART I. ADMINISTRATION OF THE GOVERNMENT.

TITLE XII. EDUCATION.

Massachusetts General Laws: Chapter 71. PUBLIC SCHOOLS.

Chapter 71: Section 55C. Eye protection devices.

<http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleXII/Chapter71>

Section 55C. Each teacher and pupil of any school, public or private, shall, while attending school classes in industrial art or **vocational shops** or laboratories in which caustic or explosive chemicals, hot liquids or solids, hot molten metals, or explosives are used or in which welding of any type, repair or servicing of vehicles, heat treatment or tempering of metals, or the milling, sawing, stamping or cutting of solid materials, or any similar **dangerous process is taught**, exposure to which may be a source of danger to the eyes, **wear an industrial quality eye protective device**, approved by the department of public health. **Each visitor to any such classroom or laboratory shall also be required to wear such protective device.**

Massachusetts General Laws: Chapter 74. VOCATIONAL EDUCATION.

603 CMR 4.00: Vocational Education (Adopted 5/29/03 Effective 9/1/03)

<http://www.doe.mass.edu/lawsregs/603cmr4.html?section=03>

03 Program Approval Criteria

Each school district requesting approval of a vocational technical education program shall demonstrate that the program meets the following approval criteria:

(3) Location (Facilities) and Equipment

- (a) Each vocational technical education program shall be conducted in facilities that meet current occupational standards.
- (b) Equipment shall meet current occupational standards and be sufficient in quantity and variety to allow students to attain competencies necessary for the occupation and the Certificate of Occupational Proficiency and to enable each student, or student team, to work continuously.
- (c) The facilities shall meet all applicable building and safety codes and shall be inspected by building and safety officials per applicable local, state and federal laws and regulations.

03 Program Approval Criteria CONT.

- (d) **The school shall develop and implement a comprehensive safety and health plan to safeguard the safety and health of all students and school personnel. The regulations of the Occupational Safety and Health Act (OSHA) governing work sites shall serve as the minimum standards for safety in the vocational technical education program. The plan should include provisions for safety inspections of all facilities, safety training for all students and staff and the use, storage and disposal of toxic and hazardous materials.**

(4) Program of Study and Methods of Instruction

- (a) The program of study shall:
 - 10. **Include a comprehensive safety and health plan, which includes safety training for all students and staff;**

Right to Know Law

The Massachusetts Right to Know (RTK) Law became effective in 1984. Initially the law applied to both the private and public sector in Massachusetts. However, Federal OSHA now regulates the private sector with similar requirements under the Hazard Communication Standard. Therefore, the Right to Know Law only applies to State, county and municipal workplaces in Massachusetts.

The workplace portion of the Mass Right to Know law requires that information on chemical hazards be given to employees by providing them with access to Material Safety Data Sheets (MSDS), by labeling containers of chemicals and by training on chemical hazards and safe work procedures

Who is covered?

All state, municipal and county employees. There are several exemptions including research labs which have obtained an exemption from the Department of Public Health and police stations and armories where ammunition is stored.

What chemicals are covered?

All chemicals which contain 1% or more (2% if an impurity) of one or more ingredients listed on the Mass Substance list are covered by the Right to Know Law. In order to determine this, it is necessary to request a MSDS from the manufacturer and compare the ingredients to the list.

Alternatively, it is the policy of our office that it is acceptable for a municipality, County or State facility to assume that all chemicals which have a MSDS listing any type of hazard are covered by the Right to Know Law. This alternative may be easier and less time consuming and will actually be more protective rather than less protective.

Note products intended for consumer use, office supplies, foodstuffs, gasoline, fuel oils, alcoholic beverages and articles as defined in the law may also be exempt.

When do I need a Material Safety Data Sheet (MSDS)?

A material safety data sheet (MSDS) is a document which provides information on ingredients, hazards and practices needed to work safely with the product. The MSDS is developed by product manufacturer and must be obtained by request if one is not sent with the product. A MSDS must be requested for all chemicals in order to determine which chemicals are covered by the law. Employers must file MSDS's in an organized manner at a central location in the workplace such that the employer can easily find the MSDS if an employee requests one.

What are labeling requirements?

Covered substances in containers more than 1 gallon or five pounds, must be labeled in accordance with the regulations. The labels must include the chemical names of all substances listed on the Mass Substance List if they are present in the container at quantities greater than 1% (2% if impurity). Containers of chemicals listed in NFPA Code 49 in containers greater than 5 gallons or 30 pounds must also be labeled with the proper NFPA label.

Alternatively, it is the policy of our office that containers which are labeled in accordance with the OSHA Hazard Communication Standard will also be considered to meet the intent of the Mass Right to Know Law. Under Hazard Communication, containers must be labeled with the name of the product and the health hazard warnings (such as flammable or corrosive). Note that most manufacturers label containers in accordance with the Hazard Communication Standard since this is a Federal regulation and applies to all private sector workplaces in the country.

What are the training requirements?

Employees who are exposed to chemical hazards must be trained annually. The initial training for new employees must be done within 30 days of employment. A record including a description of the training given, the date of the training and the names of both the instructor and employees who attended the training must be kept for the duration of the employment.

The training must include a summary of the employees' rights under the law. It also must include information on how to read a MSDS. Finally the most critical aspect of the training is informing the employees of the specific hazards and safe work practices for preventing these hazards.

Are there posting requirements?

A Right to Know Workplace notice must be posted in a central location at all workplaces which are covered by the RTK Law.

What rights to employees have?

Employees have rights under the law which includes the employee's right to request a copy of a MSDS and in certain circumstances the right to refuse to work if a MSDS is not provided. More detailed information on employees' rights is given on the required workplace notice and in the law and regulations.

Law and regulation references:

The Right to Know Law -[MGL 111F](#)

MGL 111F required three agencies to publish regulations, Department of Labor and Industries (now the Department of Labor Standards), Department of Public Health and the Department of Environmental Quality Engineering (now the

Department of Environmental Protection). The regulations promulgated and a brief summary of each is as follows:

- Department of Labor Standards - Workplace Regulation - (454 CMR 21.00)
- Department of Public Health - Mass Substance List and Lab exemptions - (105 CMR 670.000).
- Department of Environmental Protection - Community Right to Know - (310 CMR 33.00)

Massachusetts General Laws: Chapter 265. RECKLESS ENDANGERMENT TO CHILDREN
Section 13L (Approved On 9/12/02 – Massachusetts Acts of 2002: Chapter 322)

The 182nd General Court of The Commonwealth of Massachusetts Acts of 2002
Chapter 322 <http://www.state.ma.us/legis/laws/seslaw02/sl020322.htm>

AN ACT ESTABLISHING THE CRIME OF RECKLESS ENDANGERMENT TO CHILDREN.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1.

The general court finds that the majority of state criminal codes and the model penal code include reckless endangerment offenses. These crimes punish reckless conduct that creates a risk of, but do not necessarily result in, serious physical injury. These crimes do not punish a particular injury or outcome, but seek to prevent and penalize the risk that is created. While examples of offenses from states that have adopted reckless endangerment statutes often involve physical acts, such offenses include conduct that does not involve the performance of a physical act. Several states limit the statutes' application to creating a risk of serious physical injury to children.

The general court further finds that there are growing numbers of complaints concerning the sexual abuse of minors by non-custodial adults who have been recklessly placed or retained in positions of trust and authority. The general court recognizes that reckless behavior may serve as the basis for criminal liability for certain crimes committed in the commonwealth. The general court hereby finds that there is a significant public interest and urgent necessity to protect children from physical and sexual abuse by penalizing reckless behavior that creates a risk of serious physical injury or sexual abuse to a child. It is the intention of the general court to penalize reckless behavior, including the failure to act where civil or criminal law has imposed a duty on persons to act in a certain manner, which results in a risk of serious physical injury or sexual abuse to a child.

SECTION 2.

Chapter 265 of the General Laws is hereby amended by inserting after section 13K the following section:-Section 13L. For the purposes of this section, the following words shall have the following meanings:-"Child", any person under 18 years of age.

"Serious bodily injury", bodily injury which results in a permanent disfigurement, protracted loss or impairment of a bodily function, limb or organ, or substantial risk of death.

"Sexual abuse", an indecent assault and battery on a child under 14 under section 13B of chapter 265; indecent assault and battery on a person age 14 or over under section 13H of said chapter 265; rape under section 22 of said chapter 265; rape of a child under 16 with force under section 22A of said chapter 265; rape and abuse of a child under section 23 of said chapter 265; assault with intent to commit rape under section 24 of said chapter 265; and assault of a child with intent to commit rape under section 24B of said chapter 265.

Whoever wantonly or recklessly engages in conduct that creates a substantial risk of serious bodily injury or sexual abuse to a child or wantonly or recklessly fails to take reasonable steps to alleviate such risk where there is a duty to act shall be punished by imprisonment in the house of correction for not more than 2> years.

For the purposes of this section, such wanton or reckless behavior occurs when a person is aware of and consciously disregards a substantial and unjustifiable risk that his acts or omissions where there is a duty to act, would result in serious bodily injury or sexual abuse to a child. The risk must be of such nature and degree that disregard of the risk constitutes a gross deviation from the standard of conduct that a reasonable person would observe in the situation.

Approved September 12, 2002.

Appendix G – Forms and Posters

1. Massachusetts Right To Know Poster
<http://www.state.ma.us/dos/Forms/RTK-Post.pdf>

2. McCann Technical School Accident Report Form
\\Inst_data\bulletinbd\Vocational Info\Safety