DURHAM TECHNICAL COMMUNITY COLLEGE
HEALTH AND SAFETY MANUAL

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The safety rules, procedures, and practices described in this manual are not to be misconstrued as representing all safety rules, procedures, and practices that should be utilized at Durham Technical Community College or that may apply to any one specific category.

INTRODUCTION, PURPOSE AND SCOPE

INTRODUCTION

Durham Technical Community College (Durham Tech) recognizes its obligation to provide for health and safety on the campus. Steps will be taken to minimize health hazards and risk of injury. The physical well-being of faculty, staff, students and visitors must be given due consideration. This manual establishes appropriate safety standards and guidelines for the operation and facilities of the institution. The procedures herein shall apply to all college employees as well as all students and visitors on the property or in any owned, leased, or operated property by the college.

These health and safety procedures shall be reviewed at least annually and revised as necessary to provide for the safety of all who attend classes, work at the college, or visit the campuses of Durham Tech.

PURPOSE

The purpose of this manual is to provide guidance in those areas where there are safety risks. Recognizing that the health and safety of students, employees, and visitors to Durham Tech is of paramount importance, health and safety guidelines and procedures have been established to prevent accidents, and emergency action procedures have been established to meet campus emergencies.

SCOPE

Durham Tech’s Health and Safety Manual provides specific instructions for safety during the daily business of the college, for cases of emergencies, for accident prevention, and for fire prevention. Since emergencies normally are sudden and without warning, emergency responses as outlined may need to be altered to accommodate contingencies of various types and magnitudes.

IMPLEMENTATION

The responsibility for the Health and Safety Program is assigned to the Safety Compliance Officer who reports directly to the Vice President of Finance and Administration; however, the success of this program requires the full cooperation of faculty, staff, and students. In adhering to applicable rules, standards, codes, and regulations, ensuring safe practices is the immediate responsibility of department heads. This responsibility will include general education in safe practices and specialized training in safe use of equipment and facilities in a particular department.

The college President or his designee will serve as Emergency Director and will have overall responsibility for decisions regarding college emergencies or a community emergency which could impact the college. In the absence of the college President, the chain of command is as follows:

- Director/Chief, Campus Police and Public Safety
- Senior Vice President, Institutional Advancement
- Vice President, Finance and Administration
SAFETY CLASSES

Safety classes may be conducted at Durham Tech through a variety of methods including online PowerPoint presentations, traditional face-to-face classes, printed material, or by outside groups such as the Environmental Health and Safety Institute (EHSI). Individual programs will provide and track training that is specific to their program. It is the responsibility of Vice Presidents, Assistant Vice Presidents, Deans, Directors, and Supervisors to evaluate personnel for specific safety training needs including but not limited to: Hazardous Communication, Bloodborne Pathogens, Lockout/Tagout, and Fire Extinguisher Use, and to assure training has taken place. The Safety Compliance Officer is responsible for campus-wide training including Hazardous Communication and Emergency Response. The training records for each individual will be made readily available by supervisors to the Safety Compliance Officer for compliance inspections.

COLLEGE SAFETY COMMITTEE

Purpose: To provide input, share concerns, advise, and make recommendations in matters and procedures related to providing a healthy and safe college environment. The Safety Committee will meet at least quarterly to maximize campus safety by identifying and evaluating possible health and safety issues and recommending policies, procedures, and physical changes. The committee shall evaluate and update the Safety Manual annually. The committee members shall be designated according to the college’s Council on Committees process in cooperation with the Vice President of Finance and Administration.

Membership:
- 1 student support services representative (Appointed by Vice President Student Engagement, Development, and Support)
- 2 institutional support services representatives (1 shall be from Human Resources)
- 3 instructional services representatives (1 shall be from ASUT, 1 shall be from Health Technology, and 1 shall be from Applied Technologies)
- 1 continuing education representative (Appointed by Vice President Corporate Education, Continuing Education, and Public Safety Services)
- 1 student representative
- College Safety Compliance Officer
- Security Supervisor
- Facility Services Representative
- Other volunteers approved by the Vice President, Finance and Administration

1 EHSI: [Environmental Health and Safety Institute](http://www.EHSI.edu) Based at Blue Ridge Community College, Flat Rock, NC 28731.
Reports to:

- Vice President, Finance and Administration

Officers:

- Appointed Chair (Nominated by Safety Committee, Appointed by Vice President of Finance and Administration)
- Appointed Vice Chair (Nominated by Safety Committee, Appointed by Vice President of Finance and Administration)
- Secretary (selected by the Safety Committee)

SAFETY SURVEY

Environmental Health and Safety Institute (EHSI) conducts a full-service safety survey when requested by the Safety Officer. Buildings are inspected with a special emphasis on labs and shop areas. All non-compliance issues must be addressed based on recommendations from findings. The safety survey should take place annually.

RISK

The probability or threat of quantifiable damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action. Durham Tech recognizes there are inherent risks in all activities and choses to adopt a Kaiser Permanente Risk Matrix tool for quantifying the amount of residual risk on campus when identifying potential hazards.

When a potential hazard cannot be fully abated the matrix will be utilized by the Safety Compliance Officer to determine the appropriate risk level. The potential hazard will be tracked on the Durham Tech Health and Safety Master Hazard Log (Appendix P), until eliminated. The Safety Committee will review the Master Hazard Log quarterly.

When residual risk cannot be eliminated an appropriate risk authority must be notified and make an appropriate risk decision to continue or discontinue operations in the affected area. Durham Tech has assigned the following persons as risk authorities:

Low- Director Facility Services or Director Campus Police
Moderate- Vice President of Finance and Administration
High- President
CHAPTER 1 – EMERGENCY RESPONSE

INTRODUCTION

Although there are set guidelines and procedures for responding to various types of events, everyone using this manual must realize that no one set of responses can cover every eventuality. Accordingly, in an emergency situation, one general guideline should be remembered: **CALL 911** if you need emergency help and no other resource is available. Calling 911 (or 5555) from any Durham Tech phone connects the caller with the Durham Tech police dispatcher. Responses should follow the guidelines of the Business Continuity Plan.

The primary goals of any emergency response by Durham Technical Community College are to (listed in priority order):

1. Save human lives,
2. Protect human health and safety,
3. Protect College property,
4. Restore College operations,
5. Support community needs.

EMERGENCY DECLARATION

Authority to declare a campus state of emergency rests with the college President or his designee. In case of an emergency, procedures to safeguard personnel and property will be activated. The following definitions are provided as guidelines but are not all inclusive:

**Level 1 (Minor Incident):**

A Level 1 incident is any incident, potential or actual, that will not seriously affect the overall functional capacity of the College. These would be campus emergencies that can be resolved with existing Durham Tech resources or limited outside help. Examples include minor chemical spills, low-level acts of violence, water line burst, and weather related situations such as winter storm closures. Partial or no activation of EOC needed. Some, but not all Emergency Action Group team positions may be filled to coordinate and support the response to the incident.

**Level 2 (Emergency/Partial Activation):**

A Level 2 incident is any incident, potential or actual, that affects an entire building or buildings, and which may disrupt the overall operations of the College. These would be campus emergencies that require a coordinated response beyond normal operating channels. Outside emergency services will probably be required, as well as major efforts from campus support services. These situations are those that are likely to affect some community members, e.g., extended power outages, gas leak, or fire confined to local area. The EOC may be partially or fully activated. Some, but not all Emergency Action Group team positions may be filled to coordinate and support the response to the incident.

**Level 3 (Disaster/Full Activation):**

A Level 3 incident is any event or incident that has the potential or does seriously impair or halt College operations. In some cases, death of personnel and severe property damage may be sustained. Such major campus disasters require a coordinated response by all campus resources and outside emergency services.
would be essential. These situations include disasters such as active shooter, mass violence, mass casualties, tornadoes, earthquakes, major chemical incidents, and major fires. In all cases, an Emergency Operations Center will be activated, and the appropriate support and operational plans implemented.

EMERGENCY DECLARATION ACTION PLAN

After an emergency has been declared, only emergency personnel who can present proper identification will be permitted on campus. Employees assigned emergency resource team duties or issued an emergency pass will be allowed to assist. This includes all College Emergency Action Group designated persons or their alternates. Unauthorized persons may be subject to arrest in accordance with Penal Code.

DIRECTION AND COORDINATION

In the event of an emergency, the first duty of all staff and faculty is the safety of the students and others who may be on campus. The Campus Police and Public Safety Office should be called by dialing 5555 or 911, and the Campus Police and Public Safety Dispatcher should notify the College Emergency Action Group.

During an emergency or disaster, the College Emergency Action Group will provide overall direction and coordination of emergency response activities in conjunction with the Incident Commander (IC). The College Emergency Action Group, in conjunction with the Incident Commander, will work to perform the following tasks:

1. Assess the situation,
2. Determine the resources necessary to cope with the emergency,
3. Locate the resources available to cope with the emergency,
4. Determine individual assignment of the staff,
5. Establish liaisons with outside agencies,
6. Monitor progress of the emergency operations and respond appropriately, and
7. Keep the President and the Board of Trustees apprised of the situation to allow for their guidance in overall planning and response.

RESPONSIBILITIES

President:

- Provide strategic leadership and overarching policy direction for the Continuity program.
- Implement the Continuity Plan when necessary, or when directed to do so by a higher authority.
- Consult with and advise appropriate officials during implementation of the Business Continuity Plan.

Incident Commander/Operations Chief:

- Normally is the Police Chief
- Sets the incident objectives, strategies, and priorities and has overall responsibility for the incident or event.
- Conducts tactical operations to carry out the Incident Action Plan established by the Incident Commander.
- Develops the tactical objectives and directs all tactical resources associated with Operations at the site of the incident. If multiple incident sites are identified (such as if an extreme weather incident creates emergency conditions on more than one campus), a College Operations Chief will need to be assigned to each incident site.
Senior Vice President, Institutional Advancement and Support:

- Policy level decisions
- Strategic policy and direction for recovery and resumption of normal operations
- Review public information statements and releases
- Receiving, evaluating, and analyzing all information and providing updated status reports to the President and others.

Vice President Student Engagement, Development and Support,
Vice President, Student Learning and Instructional Services,
Vice President, Corporate and Continuing Education,
Executive Director, Center for the Global Learner,
Orange County Director,
North Durham Center Director,
Evening College Coordinator:

- Advise the team on Academic and Student Services.
- Supervise the implementation of academic emergency response plans.
- Organize the processes through which students return to campus-based activities.
- Communicate with state and regional academic and student services authorities.
- Develop space allocation and facility requirements
- Coordinate with appropriate organizations to obtain office/classroom space if the building is inhabitable
- Implement plans in each person’s assigned area of responsibility
- Assure timelines are observed.
- Keep the Finance Officer informed

Vice President, Finance and Administrative Services

- Monitors costs related to the incident. Provides accounting, procurement, time recording and cost analyses.
- College Finance provides accounts payable and payroll.
- Work with outside agencies to resolve financial issues.

Director of Facilities Services (or designee):

- Advise the team on Facilities issues.
- Supervise the acquisition of required goods and services.
- Coordinate replacement, renovation and repair of facilities.
- Communicate with state-wide facilities planning agencies.

Executive Director/Chief Technology Officer:

- Develop the logistical approach to recovery.
- Keep the President and other administration informed.
- Work with outside agencies to resolve financial issues.
- Advise the team on information and communication technology issues.
- Supervise the implementation of technical services response plans.
- Coordinate the replacement of technical infrastructure.
- Communicate with state-wide technology agencies.
• Assure telephonic, web-based, e-mail and television communication is developed and published to the extent possible.

Director, Marketing and Communications/Public Information Officer:
• Serves as a conduit for information to internal and external stakeholders, including the media and other organizations seeking information directly from the incident.
• Provide written or verbal statements to the media.
• Provide written or verbal updates to the college community.

Planning Officer:
• Prepares and documents the Incident Action Plan to accomplish the objectives.
• Collects and evaluates information
• Maintains resource status information.
• Maintains documentation for incident records.

Safety Compliance Officer:
• Monitors safety conditions and develops measures for assuring the safety of assigned personnel.
• Provides information in regard to hazardous materials or other material harmful for responding units.

Liaison Officer:
• Serves as the primary contact for supporting agencies that may be assisting the Incident Commander.
  The Liaison Officer should maintain the ICS Unit Log and ICS Organization Assignment List.

Building Captain:
• Role should be assumed by the senior-most faculty member or administrator in the building at the time of need (ordinarily, a division chair or department chair).
• The Building Captain position may be delegated to any faculty member or administrator who has appropriate leadership experience or incident-specific experience. Time should not be lost trying to determine who is “senior” or “qualified.”

When notified of an emergency, the Building Captain will:
• Ensure that 911 and Campus Police have been contacted.
• To the extent possible, communicate the nature and extent of the emergency with faculty and staff.
• Report directly to Operations Chief (typically, the Chief of Campus Police).
• Ensure that special attention is given to persons requiring assistance.
• When appropriate, supervise the orderly evacuation of the building, unless succeeded in that task by Campus Police.
• Ensure that evacuees group at pre-determined points and are alert for emergency vehicles responding to the scene. (If no pre-determined point is evident, evacuees should be directed to an area at least 300 feet from the building.)
Emergency Resource Telephone Numbers (campus phone numbers)

Note: The Campus Police Dispatcher will maintain a list of emergency numbers and alternate contact numbers for the Emergency Preparedness Task Force Team.

- Dispatch, Campus Police and Public Safety: Dial ext. 5555 or 911
- College Switchboard: Dial “0”
- Emergency Medical Services: Dial 9-911 (local 911 operator)
- Local Fire Department: Dial 9-911
- Director/Chief, Campus Police and Public Safety: Dial ext. 5504
- Senior Vice President, Institutional Advancement: Dial ext. 6005
- Vice President, Finance and Administration: Dial ext. 1001
- Vice President, Student Learning, Development, and Support: Dial ext. 2011
- Vice President, Corporate and Continuing Education: Dial ext. 8046
- Director, Facility Services: Dial ext. 6201
- Director, Information Technology Services: Dial ext. 6101
- Director, Orange County Campus: Dial ext. 4202
- Coordinator, Northern Durham Center: Dial ext. 4404
- Evening College Coordinator: Dial ext. 2004
- Safety Compliance Officer: Dial ext. 1018
- Public Information Officer: Dial ext. 5205

FIRE PREVENTION

Recognizing the importance of fire prevention within the college community, Durham Tech has developed an on-going fire prevention plan combining the elements below.

IDENTIFICATION OF FIRE HAZARDS

The Fire Marshal and a representative from Facilities Services will conduct a campus-wide inspection at least annually to identify potential fire hazards. Corrections are made according to the Fire Marshal’s specifications. Facilities Services will ensure that fire alarms are tested at least annually by a private, contracted service company. Fire extinguishers will be inspected at least annually by a private, contracted service company through the Facilities Services Department. The Safety Compliance Officer will check for the presence of fire extinguishers on at least a monthly basis. Fire drills and emergency response training will be conducted by the Safety Compliance Officer at least annually.

Facilities Services will ensure that fire hydrants and fire sprinkler systems around campus are tested at least annually by a private, contracted service company.

The Safety Compliance Officer will test at least monthly and annually the Emergency Egress Exit lights for each building.

HIGH-RISK FIRE Hazard Area

The Environmental Health and Safety Institute (EHSI), which is the designated safety consultant for the North Carolina Community College System, conducts on-campus investigations as requested for the purpose of identifying fire hazards, for identifying high-risk fire hazard areas, and for compliance to OSHA safety regulations. Areas identified as having the highest potential for fire do not necessarily imply that fires are
waiting to happen in a particular area but are identified in order to prevent fires. Identified high-risk areas at the college include the following:

- Maintenance Supply Storage, Facility Services Building 7-111, 7-112, 7-113, 7-114, 7-118
- Landscaping Storage, 807 Bacon Street Building 20-140, 20-142, 20-144
- Fuel/Chemical Storage, Groundskeeping Building, 807 Bacon Street Building 20-A
- Gasoline Storage Cabinet, Motorcycle Building, behind Newton Building
- Automotive Technology Lab, Newton Building 4-170
- Carpentry Lab, Newton Building 4-149
- Heating/AC Lab, 807 Bacon Street Building 20-134
- Boiler Rooms, Buildings 2-180, 8-200A, 9-242
- Housekeeping Closets, All Campus Buildings 1-162, 3-123, 3-235, 4-157, 5-106, 5-207, 6-103, 8-121, 9-109C, 9-209C, 10-102A, 10-204A, 10-302C, NDC 1-111, OCC 1-110,

**CARE OF COMBUSTIBLES**

Shops where flammable products are stored and/or used are most often identified as high-risk areas. Employees who use flammable products are instructed to take precautions to ensure that storage containers are maintained in a safe condition and are capped and stored in an approved flammable cabinet where there is little danger of fire.

**MAJOR FIRES**

Fire or smoke of undetermined origin should be reported immediately in the following sequence:

- Pull nearest fire alarm box at all exits;
- Alert others to fire and evacuate building;
  - Do not use elevators;
  - Stay near the floor where air is less toxic;
- When safe, call Campus Police at 919-536-7255, option 1;
- Do not block entrances, roadways, walkways, or fire hydrants; and
- Do not return to an evacuated building until an “all-clear” signal is issued.

**MINOR FIRES**

A minor fire is any fire that can be easily extinguished. Only personnel trained in the proper use of fire extinguishers should use a fire extinguisher to smother the fire. The following steps should be taken:

- Alert others to fire;
- Have someone pull nearest fire alarm box or do so yourself – any fire may rapidly get out of control;
- Locate the nearest fire extinguisher and direct the charge toward the base of the flame if it will pose no harm to any individuals; and
- Report the fire to Campus Police and Public Safety at ext. 5555 (919-536-7255, option 1). All fires, even those extinguished, must be reported.
BOMB THREAT PROCEDURES

If you receive a bomb threat call, use the checklist procedures on the next page to gather information.

As soon as you can:
• Call Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line to report the bomb threat or call 9-911 to report an imminent emergency; and
• Use the following procedures.

If you are informed of a bomb threat after it has been reported to authorities:
• Evacuate the building/area;
• Warn others to stay away;
• Move away from the area;
• Close doors and windows;
• DO NOT USE ELEVATORS;
• DO NOT ATTEMPT TO RETRIEVE VALUABLES;
• Do not lock doors;
• Move to designated outdoor assembly areas found on emergency procedures signage;
• Take a head count if possible;
• Do not block entrances, roadways, walkways, or fire hydrants; and
• Do not return to an evacuated building until an “all-clear” signal is issued.

Each classroom and office suite has a floor plan posted that indicates the primary exit route.

Report any unusual observations to Campus Police and Public Safety or emergency personnel.

DO NOT TOUCH ANY SUSPICIOUS OBJECTS.
## BOMB THREAT PROCEDURE CHECKLIST

<table>
<thead>
<tr>
<th>WHAT TO DO</th>
<th>INFORMATION TO OBTAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Call:</td>
<td>When and where is the bomb going to explode?</td>
</tr>
<tr>
<td>Time of Call:</td>
<td></td>
</tr>
<tr>
<td>Stay focused and stay on the phone for entire message.</td>
<td>What does the bomb look like? Is it contained in something like a box or bag?</td>
</tr>
<tr>
<td>Try to alert a colleague and have them call Campus Police and Public Safety or local law enforcement.</td>
<td>What type of bomb is it? What is the bomb made of?</td>
</tr>
<tr>
<td>Voice: Circle or Complete</td>
<td></td>
</tr>
<tr>
<td>----Sounds familiar?</td>
<td>What can cause the bomb to explode (timer, motion, etc.)?</td>
</tr>
<tr>
<td>----Male? ----Female?</td>
<td></td>
</tr>
<tr>
<td>----Calm, nervous, upset, angry?</td>
<td></td>
</tr>
<tr>
<td>----Accents (where from? ____________)</td>
<td></td>
</tr>
<tr>
<td>Bland? Natural?</td>
<td></td>
</tr>
<tr>
<td>----Clear, stutter, lisp, slurred?</td>
<td></td>
</tr>
<tr>
<td>Note background noises.</td>
<td>Why are you doing this?</td>
</tr>
<tr>
<td>Note affiliations mentioned.</td>
<td>Where are you calling from?</td>
</tr>
<tr>
<td>Note key words/phrases used.</td>
<td>Who are you?</td>
</tr>
<tr>
<td>Note names mentioned. Familiar (if so, who?) or unfamiliar (natural or disguised).</td>
<td></td>
</tr>
</tbody>
</table>

Once call is over (if not already able to do so), call Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line or local police at 9-911 immediately!
MEDICAL/PSYCHOLOGICAL CRISIS

- If a serious or life threatening medical emergency occurs, direct someone to CALL 9-911 and Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line. Provide officials with names, telephone number, location, and a description of the problem.

- Stay with the victim. If the victim is conscious, ask what the problem is. If the victim is unconscious, check for breathing and bleeding.

- Ask people to clear the area if they are not helping

- Do not attempt to clean up any blood or body fluids.

- Avoid contact with any visible body fluids such as blood or vomit. Direct someone to report spillage of any body fluids to the Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line.

- Keep the victim still, comfortable, and warm.

- Protect the victim from any disturbances.

- Check/ask for any emergency identification (such as an ID bracelet).

- Wait for emergency help to arrive. Someone from Campus Police will come to you. Never leave the victim alone if at all possible.

If a psychological crisis occurs (such as suicide attempt, disorientation, confusion, panic):

- Call Campus Police and Public Safety at ext. 5555 or 9-911 using a college phone or 919-536-7255 using a cell phone or outside line. Give your name, telephone number, your location, and location of the victim.

- Stay with the victim unless your safety is threatened, and wait for emergency response personnel to arrive.

- Stay calm and do not incite panic in others.

- Be sensitive to the family and friends during the crisis.

- Refer to the handout section entitled “Reporting an Emergency” for additional helpful information.
CIVIL DISTURBANCES

Workplace Violence

In all situations, if violence appears to be imminent, employees should take the precautions necessary to assure their own safety and the safety of others.

<table>
<thead>
<tr>
<th>Violence</th>
<th>Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurring or imminent</td>
<td>1. Seek safety first.</td>
</tr>
<tr>
<td></td>
<td>2. Call Campus Police and Public Safety at ext. 5555 using a college</td>
</tr>
<tr>
<td></td>
<td>phone or 919-536-7255 using a cell phone or outside line.</td>
</tr>
<tr>
<td></td>
<td>3. Evacuate everyone in the area</td>
</tr>
<tr>
<td></td>
<td>4. Notify your supervisor.</td>
</tr>
<tr>
<td></td>
<td>5. Provide core information as follows:</td>
</tr>
<tr>
<td></td>
<td>a. Who is involved;</td>
</tr>
<tr>
<td></td>
<td>b. Where it occurred;</td>
</tr>
<tr>
<td></td>
<td>c. Any weapons observed;</td>
</tr>
<tr>
<td></td>
<td>d. Extent of injuries;</td>
</tr>
<tr>
<td></td>
<td>e. Any damage done.</td>
</tr>
<tr>
<td></td>
<td>6. Refer media or other information requests to the Public Information Officer (PIO), ext. 5205 or the Senior Vice President, Institutional Advancement, ext. 6005.</td>
</tr>
<tr>
<td></td>
<td>7. After the event, complete a written document describing the incident and what took place, using the Workplace Violence Report (see next page). A Campus Police Officer will also collect information.</td>
</tr>
<tr>
<td>Not occurring or not imminent</td>
<td>1. Separate the parties involved.</td>
</tr>
<tr>
<td></td>
<td>a. If possible, escort them to separate areas.</td>
</tr>
<tr>
<td></td>
<td>b. If the parties cannot be separated or it would be too dangerous to attempt separation, call Campus Police at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line.</td>
</tr>
<tr>
<td></td>
<td>2. Contact your supervisor.</td>
</tr>
<tr>
<td></td>
<td>3. Complete the Workplace Violence Report (see next page).</td>
</tr>
</tbody>
</table>
WORKPLACE VIOLENCE REPORT

As soon as feasible, complete the following report describing the incident and what took place.

<table>
<thead>
<tr>
<th>Your name:</th>
<th>Phone number:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Office location:</th>
<th>Date and time of incident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location of incident:</th>
<th>Names (and IDs) of people involved:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Has any person involved made threats in past?</th>
<th>☐ Yes ☐ No If yes, who and when?</th>
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<tr>
<th>Are any of the persons involved known to have a weapon?</th>
<th>☐ Yes ☐ No If yes, who and when?</th>
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<tr>
<th>Is there a history of animosity between the people involved?</th>
<th>☐ Yes ☐ No If yes, who and when?</th>
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SEVERE OR INCLEMENT WEATHER

- “WATCH” means that there is a chance of dangerous weather and persons in the “WATCH” area should prepare.
- “WARNING” means that dangerous weather has been sited (tornado, high winds, flooding, lightning, etc.) and persons in the “WARNING” area should take action as necessary for safety.
  1. When a “WATCH” is issued: Regular activities are to be continued until other notification.
  2. When a “WARNING” is issued and the facility is located in the projected path of the storm: Employees will be informed of the precautions to take.

TORNADO or HIGH WINDS WARNING:

- You will be informed if there is a warning.
- Proceed to appropriate Weather Shelter Areas as marked on emergency response posters found in classrooms and at exits. They are designated with the tornado symbol:
- Monitor emergency information channels on a radio or cell phone.
- Do not return to class or work areas until the “ALL CLEAR” is given.

FLASH FLOOD:

If a flash flood occurs, which prevents employees and students from leaving the facility, you will be instructed to go to the highest floor areas in each building and remain there until outside assistance arrives.

VIOLENT CRIME OR CRIMINAL ACTIVITY

If you see or suspect any illegal activity occurring on or around a Durham Tech Campus:

- Call Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line.
- Give the Campus Police and Public Safety your name and location as well as the location and nature of the incident.
- If you are in a safe location, stay there.
- Do not attempt to interfere with the situation except for self-protection.
- Try to note a description of any suspects involved. Important information to note includes: height and weight; names used; hair color; method and direction of travel; sex, race, and age; and distinguishing marks (scars, tattoos, etc.).
- Also try to note a description of any vehicles involved. Important information to note includes: color; makes and models, license number, how many occupants, and noticeable damage or uniqueness.

Follow the above procedures if any of these suspicious signs are observed or heard:

1. A scream or call for help.
2. A whistle or horn blowing – especially in groups of three.
3. A broken window.
4. Gun shots.
5. An unfamiliar person doing any of the following:
   - Entering an office without authorization;
Loitering on or around the campus;
- Trying to break into a vehicle; or
- Repeatedly driving on or around campus.

**FIREARMS**

North Carolina Law (N.C.G.S. §14-269.2) generally prohibits carrying a “weapon” either openly or concealed on community college property. A “weapon” includes firearms, explosives, BB guns, stun guns, air rifle or pistol, and certain types of knives or sharp instruments. However, the General Assembly has enacted a limited exception to the general prohibition (S.L. 2013-369, sec. 2; HB 937; N.C.G.S. §14-269.2(k)).

A firearm is permissible on a community college campus only under the following limited circumstances:

1. The firearm is a handgun; AND
2. The individual has a valid concealed handgun permit or is exempt from the law requiring a permit; AND
3. The handgun remains in either; a closed compartment or container within the individual with the permit’s locked vehicle; or a locked container securely affixed to the individual with the permit’s locked vehicle; AND
4. The vehicle is only unlocked where the individual with the permit is entering or exiting the vehicle; AND
5. The firearm remains in the closed compartment at all times.

This does NOT permit the concealed carry permit holder to carry the handgun around campus.

Durham Tech Campus Firearm Policy: [Firearm Policy](#)

**ACTIVE SHOOTER**

*Active Shooter on Campus/Lockdown*

Situations where one or more individuals are using deadly force against many people are very fluid and changing. It is impossible to anticipate exactly how the situation will evolve. It is impossible to provide absolute guidelines. Thinking through possible actions now may give you an important advantage. Active shooter incidents can happen at any location where people gather and usually start quickly and without warning. Call 911 and 919-536-7255 as soon as you can do so with relative safety.

*Decision Making for Active Shooter on Campus/Lockdown*

In the initial phases of an active shooter situation individuals will need to make decisions based upon their assessment of the situation.

Follow all directions from law enforcement personnel.

As soon as it is safe the College Emergency Action Group will convene to consider other actions needed by the college.

All college communications will utilize the campus emergency communication plan.
Action Steps:

Happening Now
Hearing gun fire may be your first indication that something is wrong. Assess your situation as best you can and take action.

In general, the more distance you can put between yourself and the shooter the better. Do not go towards the sounds of gunfire to investigate and/or try to help. Get away from the area. Try to be a moving target vs. a non-moving target.

If you cannot get out of the area but are somewhat distant from the shooting, consider locking down as an option.

You may choose to try and secure the room you are in or go to a near-by room that can be secured. Close blinds, turn off all radio's etc., and keep quiet. Get down near the wall which the shooter is most likely to try firing through. Consider trajectory of possible bullets when taking cover. Your goal is to keep the shooter from entering your room.

Quietly discuss with others in the room what you will do if the shooter enters the room. If that happens do not "duck for cover," and become a partially exposed, passive target. If possible, try to get away. Evaluate the situation as best you can before following any directions from the shooter.

Lockdown - (Securing of Doors)
Purpose: To try and keep people from coming in contact with the shooter by going to places that can be secured. Ideally, such a space has phone and internet access, but the ability to secure the space is primary. When possible the campus emergency notification system will be activated to alert people to the need for a lockdown.

It must be an individual decision whether it is best to try to flee the area or lockdown. There are risks and benefits to both decisions and your decision will need to be based on your individual situation. Staff may initiate the use of safe rooms in place in their area when circumstances dictate. Departments should have pre-determined safe rooms.

Do not set off the fire alarm in a lockdown. People may become targets by orderly leaving the buildings and gathering outside.

If a fire alarm goes off while you are in lockdown or sheltering in a safe room, assess the situation before leaving shelter. The alarm may have been set off by the shooter(s). If smoke or fire is present, exit the area. In an active shooter situation, the first priority of police will be to neutralize the shooter(s). First aid for victims is a secondary priority, until this is accomplished.

When the situation is secure, an announcement will be made on the overhead public address system. Cooperate fully with law enforcement, make no sudden moves and refrain from running towards officers.

Modified Lockdown
Purpose: To secure exterior doors while normal activities continue within the building(s). This is used when there is a probability of a dangerous situation coming on campus and there is a need to restrict access to our buildings.
Upon getting the announcement to start a modified lockdown staff should secure their exterior doors, close blinds and continue normal activities until notified of an all clear.

During modified lock down you may let people into your building who you know personally and/or who do not fit the description of the suspect.

**Communications for Lockdown incidents**
Public address/mass notification system will be used.

**HAZARDOUS MATERIALS EMERGENCY CONTINGENCY PLAN**
Definition: Any material known to you to be hazardous OR any material that is unknown to you and you are not sure whether it is hazardous.

1. Possible danger?
   - Contact Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line.
   - Warn all people in the immediate area of the hazard.
   - Evacuate if necessary.
2. Do not attempt to clean up a spill unless
   - The spill is incidental; and
   - You have been trained on the proper procedure and have the proper personal protective equipment (PPE).
3. Be aware of offensive or irritating odors or fumes resulting from spills.
   - Be prepared to evacuate buildings and/or areas in order to avoid potentially dangerous fumes.

All laboratory and maintenance personnel should be prepared to assist in the assessment of spills within their areas but only if requested by local emergency personnel or the Hazardous Materials Team. Consult the Safety Data Sheet (SDS) of the spilled substance for proper PPE and clean-up procedures.

**UTILITY EMERGENCIES**
If a utility problem is discovered, such as a gas leak or elevator failure, call Campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line.

**GAS LEAK**
- **ACTIVATE EMERGENCY SHUT-OFF VALVE.**
  - Only personnel specifically trained in emergency shut-off, (if there is one) procedures should attempt to shut off the gas in the building.
• DO NOT
  o Light matches;
  o Turn on or off lights.
  o Plug or unplug electrical.
• EVACUATE the building.
• FOLLOW DIRECTIONS given by Campus Police and Public Safety or Facility Services or other authorized personnel.
• If possible, OPEN windows to allow ventilation.

**ELEVATOR FAILURE**

• If an elevator stops between floors or the doors will not open, use the elevator phone or alarm button to call for help. A Facility Services employee or Campus Police and Public Safety will respond.
• Do not pry open the doors or overhead hatch of a stopped elevator.
• Elevators will be checked for occupants by Campus Police and Public Safety or Facility Services staff during power failures and/or emergency situations.

**ELECTRICAL**

• Call campus Police and Public Safety at ext. 5555 using a college phone or 919-536-7255 using a cell phone or outside line.
• Do not approach or touch any wires or person down with wires nearby.
• Do not attempt to make any repairs.
• Report all electrical shocks or outlets that do not work or smoke.
CHAPTER 2 – GENERAL SAFETY GUIDELINES AND PROCEDURES

INTRODUCTION
The guidelines and procedures set forth in this section of the Health and Safety Manual have been established and designed to safeguard the well-being of the students, faculty, staff, and visitors to the campuses of Durham Tech. As previously noted, no set of guidelines or procedures can foresee every eventuality; however, the guidelines and procedures contained in this chapter along with the commitment of everyone on campus to be vigilant and to be safety conscious, will help prevent many of the accidents and injuries which we hope to avoid. The guidelines and procedures will be monitored and applied as necessary by those staff and faculty in the various areas of the campuses for which they have responsibilities.

OCCUPATIONAL HEALTH AND SAFETY ACT
The Occupational Health and Safety Act of 1970 provides that every employer engaged in business shall:

- Furnish each employee a place of employment free from recognized hazards that are causing or likely to cause death or serious physical harm;
- Comply with occupational health and safety standards and guidelines, regulations, and orders pursuant to the Act that are applicable to company business and operations;
- Comply with and require all employees to comply with occupational health and safety standards and regulations under the Act which are applicable to their actions and situations; and
- Encourage employees to contact their immediate supervisor for information that will help them understand their responsibilities under the Act.

HEALTH AND SAFETY RESPONSIBILITIES
Duties and responsibilities of all personnel under our health and safety program are as follows:

Vice President, Finance and Administrative
- Ensures that all aspects of the occupational health and safety programs are administered.
- Recommends disciplinary action for repeat violators of health and safety guidelines.
- Ensures the state health and safety poster, emergency telephone numbers, OSHA Form 300, and other notices required by OSHA are posted in places where employees can see them on each job.
- Develops and maintains accident and incident investigation and reporting procedures and systems. Investigates serious or reportable accidents and takes action to eliminate accident causes. Reportable incidents consist of fatalities, lost work day cases, and without lost work days requiring medical treatment. Keeps management informed of findings.
- Reports accidents that result in an occupational fatality or three or more hospitalized workers within eight hours of occurrence.
- Requires all subcontractors and subcontractor personnel working within the college facilities to comply with health and safety regulations.

Safety Compliance Officer
- Carries out aspects of the occupational health and safety programs.
- Helps develop programs and technical guidance to identify and remove unnecessary physical, chemical, and biological hazards from facilities, operations, and sites.
- Assists management and supervisors in the health and safety training of employees.
• Conducts inspections to identify unhealthy or unsafe conditions or work practices. Completes written reports of inspections. Use of EHSI checklists is recommended.

• Recommends programs and activities that will develop and maintain incentives for and motivation of employees in health and safety.

• Maintains OSHA 30 Hour General Industry qualification.

**Vice Presidents, Assistant Vice President, Deans, Department Heads**

- Familiarizes himself/herself with health and safety regulations related to his/her area of responsibility.
- Directs, implements, and coordinates health and safety program elements and activities within areas of responsibility.
- Requires all employees supervised to use individual protective equipment and safety devices.
- Ensures that safety equipment is available, maintained, used, and stored correctly.
- Ensures that all persons within areas of responsibility receive job safety and health training as required.
- Ensures that directors and supervisors are aware of and comply with requirements for safe practices.
- Investigates all accidents within his/her area of responsibility. Reviews all accidents/incidents with supervisors and employees involved. Ensures accident reports and Workers’ Compensation forms are completed and submitted as appropriate. Insures that corrective action is taken immediately to eliminate the cause of the accident.
- Maintains copies of applicable records.

**Directors/Supervisors**

- Be familiar with, explains, and enforces health and safety regulations that apply to operations within his/her area of responsibility.
- Ensures that persons under his/her supervision use safety devices and proper individual protective equipment.
- Ensures that all persons within areas of responsibility are trained in job health and safety requirements and requires compliance by employees with the safety guidelines established.
- Ensures that injuries are treated promptly and reported properly.
- Investigates all accidents/incidents, obtains all pertinent data, and initiates/takes corrective action.
- Acts on reports of hazards or hazardous conditions that employees report to them.
- Ensures monthly and annual inspections are completed in their areas for items such as eyewash stations, decontamination showers.

**Faculty**

- Ensures that all students wear appropriate personal protective equipment.
- Trains students on hazards they may encounter in the classroom, lab, or field site.
- Establishes safety policies for students in their specific areas.
- Immediately report potential safety problems or accidents to the Safety Compliance Officer.

**All Employees**

- Be familiar with and comply with proper health and safety practices.
- Use the required safety devices and proper personal protective safety equipment.
- Notify supervisor immediately of unsafe conditions/acts, accidents, and injuries.
**ACCIDENT/INJURY REPORTING**

All accidents or injuries must be reported to Campus Police and Public Safety. Campus Police and Public Safety will notify the Safety Compliance Officer who will complete an Accident/Injury Report. All employee injury reports should be copied and forwarded to the Workers’ Compensation Administrator (WCA). All student injury reports should be copied and forwarded to the Director of Purchasing and Auxiliary Services.

**WORKERS’ COMPENSATION CLAIMS MANAGEMENT**

The following actions will be taken/followed on all employee accidents/injuries submitted as a Workers’ Compensation claim.

- Ensure that the injured employee receives immediate and appropriate attention. In life threatening emergencies, get the employee to the nearest medical facility.
- Correct the unsafe condition immediately.
- Direct the employee to the Worker’ Compensation Administrator (WCA) for a listing of physicians to which the employee may be directed.
- Have the employee obtain a medical authorization form from the WCA to take to the physician.
- Report the injury/accident immediately to the WCA and to Campus Police and Public Safety.
- Safety Compliance Officer assist in the accident investigation to determine the cause of the accident.
- Complete the required documentation (Supervisor’s Accident/Incident Investigation Report) and forward the report to the WCA within 24 hours of the injury.
- The WCA will communicate with injured employee to ensure his/her needs are met. If the employee is out of work, the WCA will make contact weekly. Immediately upon receipt of any information regarding lost work time or returning to work, the employee must notify the WCA.
- Assign transitional duty as soon as the employee is medically able return to work.
- Encourage safe work practice.

**STUDENT INJURIES**

The following actions will be taken/followed on all student accidents/injuries:

- Ensure that the injured student receives immediate and appropriate attention. In life threatening emergencies, get the student to the nearest medical facility.
- Correct the unsafe condition immediately.
- Direct the student to the Director of Purchasing and Auxiliary Services for a listing of physicians to which the student may be directed.
- Report the injury/accident immediately to the WCA and to Campus Police and Public Safety.
- Safety Compliance Officer assist in the accident investigation to determine the cause of the accident.
- Complete the required documentation (Medical Accident/Incident Investigation Report) within 24 hours of the injury.

**OSHA FORM 300 INJURY/ILLNESS LOG**

The OSHA Form 300 log of all recordable occupational injuries and illnesses is maintained in the Business Office on the Main Campus. Any logs at other Durham Tech facilities should be posted by the WCA onto the master form on the Main Campus within six days after the accident has occurred. The summary section of Form 300 must be posted at each work facility/site by February 1 of each year and remain in place until April 30.

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TRAINING

Training and education cannot be over-emphasized as a means of learning healthy and safe approaches to an employee work effort. Knowledge of the safety guidelines and how and when to function under the guidelines, supplemented by compliance, are essential to health and safety.

- Employees scheduled for any health and safety training will attend and complete such training.
- New employees will be provided orientation training and will be furnished information and literature covering the college’s health and safety policies, guidelines, and procedures. This orientation training must be provided prior to the employee’s exposure to the work environment.
- Individual job/task training will be provided to all employees. Included in this training is the applicable regulations/standards for their job; the recognition, avoidance, and prevention of unsafe conditions; areas and activities that require personal protection equipment (PPE); and how to use protective equipment (such as respirators, etc.).
- On-going safety training sessions will be conducted to provide employees information and training on new equipment, new procedures, new chemicals, refresher/remedial training in specific areas, or meet annual requirements.
- Supervisors will ensure their employees are scheduled and provided this training as required.
- Examples of specified training include, but are not limited to the following:
  - Fire extinguisher training;
  - Confined space entry;
  - Hazard communication;
  - Lockout/tagout procedures;
  - Industrial truck/forklift operation; and
  - Electrical work

All safety training addressed above will be documented. The documentation will be copied to the Safety Compliance Officer for compliance with OHSA recordkeeping

HAZARD IDENTIFICATION, ASSESSMENT, AND CONTROL

Hazard identification and elimination are not only inherent responsibilities of supervisors in providing a safe workplace for employees but also require employee involvement. As such, hazard evaluation and control shall be on-going concerns for all. It is the responsibility of everyone (management, supervisors, and all employees) to identify, report, and correct all possible hazards. Employees are particularly important in this process as they are in the best position to identify hazards in the workplace and day-to-day operations.

**Reporting hazards is a protected activity, and no action will be taken against anyone for identifying unsafe conditions.** Reports should be made to the employee’s supervisor for appropriate action. Durham Tech has a procedure for conducting inspections of workplaces/jobsites for compliance with health and safety guidelines. The purpose of the in-house inspection is to identify hazards and unsafe practices before they cause an injury or accident. Formal safety and health inspections will be conducted under the following minimum timelines:

- Safety Compliance Officer: Semi-annual visits of all fixed facilities and shops.
- Directors and Supervisors: Quarterly visits of his/her areas of responsibility.
- The college’s health and safety program will be reviewed at least annually by the Safety Committee.
- OSHA, EHSI, contracted consultation services, and insurance company representatives may conduct on-site consultation and inspections, if desired and when requested.

After completing jobsite or facility inspections, the person making the inspection will:

- Discuss findings with employees/persons responsible for creating the condition. Invite their comments, suggestions, and aid.
• Ensure recommended corrections/changes are transmitted to/discussed with the proper supervisor/person for correction.
• Follow up on changes, corrections, and other necessary actions.
• Provide a copy of the checklist to college Safety Compliance Officer, along with statement of corrective actions taken or required to be completed. The items will be placed on the Health and Safety Master Hazlog.

**Inspection Guideline**

This listing includes items, areas, and categories that may be looked at during health and safety inspections of the college’s workplace, labs, shops and classrooms. The following is a generic list and not all-inclusive but provides guidelines for areas to be surveyed or developed into a checklist for use during the inspection.

- First aid safety and health equipment;
- Posters and signs required by OSHA and Workers Safety, and health and safety practices;
- Accident reporting records;
- Employee training provided, such as health and safety talks, presentations and discussions, worker orientation, etc;
- Equipment and tools (hand, power, welding, etc.) use and operating condition;
- Protective guards and devices: availability, use, proper maintenance and operating condition;
- Housekeeping: maintaining clean work areas, free of trash/debris accumulation, tripping, and slipping hazards; appropriate cleanliness and proper operation;
- Noise hazards, hearing protection;
- Ventilation for gases, vapors, fumes, dusts;
- Availability of personal protective equipment (PPE): hard hats/head protection, respirators, safety belts, life lines, safety shoes, ear protection, eye protection, gloves, lab aprons and coats;
- Fire protection, prevention, and control and the use of fire protection equipment;
- Temporary buildings, trailers, sheds;
- Open yard storage;
- Storage of flammable and combustible liquids, including service and refueling areas for vehicles;
- Temporary heating devices;
- Fall protection requirements: in place and in use;
- Electrical system and devices, condition and use of cords, ground fault protection, circuit breaker panels, receptacles, and switches;
- Openings: floor, wall, and safety railings;
- Materials: handling equipment and elevators;
- Ladders: condition and use;
- Hazard communication program and safety data sheets (SDS);
- Stairways: safety railings and condition;
- Scaffolds: safety railings and if secured;
- Lockout/Tagout procedures;
- Machines and equipment: condition and if guards are in place;
- Forklifts, etc: condition and operation;
- Preventive maintenance program: all inclusive, up to date; and
- Other items as appropriate.
HEALTH AND SAFETY GUIDELINES AND PROCEDURES

In order for a health and safety program to be effective, it is vital that it be understood and implemented at all levels. The following are the primary occupational health and safety guidelines and procedures applicable to college operations. A complete set of standards may be found in the OSHA Guidelines and Regulations for General Industry, 1910.

General Workplace Safety

- Report unsafe conditions to your immediate supervisor.
- Promptly report all accidents/injuries/incidents to your immediate supervisor.
- Use eye and face protection where there is danger from flying objects or particles (such as when grinding, chipping, burning, and welding, etc.) or from hazardous chemical splashes.
- Dress properly. Wear appropriate work clothes, gloves, and shoes or boots where necessary. Loose clothing and jewelry shall not be worn in areas with machinery that has moving parts.
- Operate machines or other equipment only when all guards and safety devices are in place and in proper operating condition.
- Keep all equipment in safe working condition. Never use defective tools or equipment. Report any defective tools or equipment to your immediate supervisor.
- Properly care for and be responsible for all personal protective equipment (PPE). Wear or use any such PPE when required.
- Lockout or tagout or disconnect power on any equipment or machines before any maintenance, unjamming, and adjustments are made.
- Do not leave materials in aisles, walkways, stairways, work areas, or other points of egress.
- Practice good housekeeping at all times.
- Training on equipment is required prior to unsupervised operation.
- Compliance with all governmental regulations/guidelines and all college safety guidelines and procedures in the following sections are required.

Housekeeping

- Proper housekeeping is the foundation for a safe work environment. It definitely helps prevent accidents and fires, as well as creates a professional appearance in the work area.
- All work areas, floors, aisles, and stairways will be kept clean, orderly, and free of tripping and slipping hazards. Oils, greases, and other liquids will be immediately cleaned up if spilled.
- Combustible scrap, debris, and garbage shall be removed from the work area at frequent and regular intervals.
- Stairways, walkways, exit doors, in front of electrical panels, or access to firefighting equipment will be kept clear of storage, materials, supplies, trash, and other debris at all times.
- Overhead storage areas will be marked as to maximum load ratings.

Fire Prevention

- All portable fire extinguishers will be conspicuously located, accessible, and maintained in operating condition. Portable fire extinguishers will receive required monthly checks and an annual service check. These will be documented by a tag on the extinguisher or other form.
- All employees must know the location of firefighting equipment in the work area and have knowledge of its use and application where required.
• Exits will be marked as such by a readily visible sign. Other doors likely to be mistaken for an exit will be marked as to their use or noted as "Not An Exit."
• Only approved safety cans shall be used for handling or storing flammable liquids in quantities greater than one gallon. For one gallon or less of flammable fuels, only the original container or a gasoline safety container will be used.
• When heat-producing equipment is used, the work area must be kept clear of all fire hazards and all combustible materials will be eliminated.
• Fire extinguishers will be available at all times when utilizing heat-producing equipment.

**Industrial Hygiene and Occupational Health**
• Employees exposed to noise levels above the permissible noise level will be included in the hearing conservation program. Hazardous noise areas will be posted, and hearing protection will be worn in those areas as required.
• Employees exposed to harmful gases, fumes, dust, and similar airborne hazards will be furnished protection through proper ventilation or personal respiratory equipment.
• Any demolition, renovation, or self-help work will be assessed for lead exposure and asbestos exposure, particularly if drywall or any painted surfaces or abrasive blasting/grinding are involved.

**Personal Protective and Related Equipment**
• Personal protective equipment (PPE) must be worn as required for each job in all operations where there is an exposure to hazardous conditions. This exposure is determined by the supervisor’s personal protective equipment hazard assessment of the workplace. Equipment selection and wearing requirements are determined during this assessment.
• Safety glasses, goggles, or face shields will be worn in those areas where there is a reasonable probability of injury to the eye from flying particles, molten metal, chemicals/acetcs/caustics, or light radiation or other eye hazards.
  o Persons requiring corrective lenses will only wear approved safety glasses, protective goggles, or use other medically approved precautionary procedures.
• Head protection (hard hats) will be worn for protection from falling objects or for work near energized electrical contact.
• Foot protection will be worn where there is danger to the foot from falling/rolling objects, objects piercing the sole, or electrical hazards.
• Hand protection is required when hands are exposed to the possibility of severe cuts/abrasions, chemical/thermal burns, or chemical absorption.
• Appropriate gloves, aprons, goggles, and closed-toe shoes or boots will be used when needed for protection from acids and other chemicals which could injure employees.
• Respiratory equipment in many cases is needed for protection against toxic and hazardous fumes/dusts. Supervisors must verify which equipment meets the need for breathing safety and provide the training for using the respiratory equipment correctly. Only MSHA/NIOSH-approved equipment will be used.
• The use of safety harnesses and lanyards are required when working more than 10 feet above a floor or ground level and there are no guardrails or other form of fall protection and when working on certain suspended scaffolds. Each employee will be on a separate safety line, and this line will be adjusted so that the employee cannot fall more than six feet.
• All PPE will be maintained in sanitary condition and ready for use.
**Electrical**

- Live electrical parts shall be guarded against accidental contact by cabinets, enclosures, location, or guarding. Open circuit breaker openings or knock out holes, broken receptacles/switches, missing covering plates, etc., will be reported to supervisors for repair or replacement.
- Working and clear space around electrical equipment and distribution boxes will be kept clear and accessible.
- Circuit breakers, switch boxes, etc. will be legibly marked to indicate their purpose.
- Employees shall make preliminary inspections and/or appropriate tests to determine status of the electrical equipment before starting work.
- All extension cords and electric powered tools (except double insulated) will be grounded; ground prongs will not be removed.
- Electrical cords and their strain relief devices will be in good condition, with no splices.
- Electrical wiring/cords entering/exiting any panel/control/junction box will be secured with clamps or other appropriate strain relief device.
- Extension cords and other flexible cords will not be used in lieu of permanent wiring and receptacles. Cords will not be run through holes in doors, walls, windows, nor will they be fastened to walls, poles, equipment, etc.
- All lamps below seven feet used for general illumination will have the bulbs protected against breakage.
- All contract electrical work must be in compliance with OSHA.

**Guarding**

- All flywheels, shafting, pulleys, belts, gears, sprockets, chains, and fan blades will be guarded/enclosed when located below seven feet above the floor or work platform.
- Guards installed on machinery and equipment, such as air compressors, conveyors, drill presses, etc., will not be removed when operating. Guards removed for servicing or other work on the machine require the machine be unpowered and labeled as out-of-service.
- Woodworking equipment, such as power saws, radial arm saws, table saws, and portable abrasive grinders, will not be operated unless all required guards are in place. Featherboards and pushboards will be used when appropriate.

**Compressed Gas Cylinders**

- All gas cylinders shall have their contents clearly marked on the cylinder.
- Cylinders must be transported, stored, and secured in an upright position. They will never be left laying on the ground or floor, nor used as rollers or supports.
- Cylinder valves must be protected with caps and closed when not in use.
- Oxygen cylinders and fittings will be kept away from oil or grease. Oxygen cylinders will be stored at least 20 feet from any fuel gas cylinder or separated by a fire barrier at least five feet high.
- When cylinders are hoisted, they will be secured in a cradle, sling-board, or pallet. Valve protection caps will not be used for lifting cylinders from one vertical level to another.

**Ladders**

- Ladders will be inspected frequently to identify any unsafe conditions. Ladders which have developed defects will be removed from service and repaired or replaced. They will be tagged or marked as such.
• Portable ladders will be placed as to prevent slipping or if used on other than stable, level, and dry surfaces, will be tied off or held. A simple rule for setting up a ladder at the proper angle is to place the base from the vertical wall equal to one-fourth the working length of the ladder.
• Portable ladders will extend at least three feet above the upper level to which the ladder is used to gain access.
• The top of a stepladder will not be used as step.
• Only one person will be on a ladder at a time.

**Flammable and Combustible Liquids**

• Only approved safety cans, original containers, or portable tanks will be used to store flammable or combustible liquids. Small quantities (less than 500 milliliters) for laboratory use will be stored in containers designed for their use and properly labeled.
• Above-ground storage tanks will be separated from each other by a minimum of three feet or 1/6 the sum of their diameters. Dikes or drainage to prevent accidental discharge from reaching adjoining property or waterways will be provided.
• No more than 25 gallons of Class IA and 120 gallons of Class IB, IC, II, or III liquids may be stored outside a storage cabinet or an inside storage room.
• An emergency shut-off switch located 15 to 75 feet from the pumps and a fire extinguisher will be provided at company fuel servicing areas.

**Welding and Brazing**

• Combustible material will be cleared for a radius of at least 35 feet from the area around cutting or welding operations. If the combustible material cannot at least be cleared or the work cannot be moved, then the welding/cutting will not be done.
• Welding helmets and goggles will be worn for eye protection and to prevent flash burns. Eye protection will be worn to guard against slag while chipping, grinding, and dressing of welds.
• Welding screens will be used and in proper position to protect nearby workers from welding rays.
• Cables, leads, hoses, and connections will be placed so that there are no fires or tripping hazards. Cables will not be wrapped around the welder's body.
• Oxygen cylinders will be stored at least 20 feet from fuel gas cylinders or separated by a noncombustible fire wall with a one-half hour rating at least five feet high.
• All cylinders will be properly secured. Valve protection caps will be in place on cylinders not in use.
• Ventilation is required for welding in any confined spaces.
• A portable fire extinguisher will be available nearby whenever welding or brazing takes place.

**Tools**

• Hand tools with broken or cracked handles, mushroomed heads, or other defects will not be used. Files will have handles installed.
• Special precautions will be used when using power tools. Defective tools will be removed from service.
• Power tools will be turned off and motion stopped before setting the tool down.
• Tools will be disconnected from the power source before changing drills, blades, or bits or before attempting a repair or adjustment; never leave a running tool unattended.
• Power saws, table saws, and radial arm saws will have operational blade guards installed and used. Anti-kickback teeth and spreaders will be used when rip sawing.
Portable abrasive side-winder grinders will have guards installed covering the upper and back portions of the abrasive wheel. Wheel speed ratings will never be less than the grinder RPM speed.

Pedestal grinders will be permanently mounted, tool rests installed and adjusted to within 1/8 inch of the wheel, tongue guards installed and adjusted to within 1/4 inch of the wheel, and side spindle/nut guards installed.

Air compressor receivers will be drained frequently to prevent buildup of water in the tank.

Compressed air will not be used for cleaning purposes except when pressure is reduced to less than 30 psi by regulating or using a safety nozzle and then only with effective chip guarding and proper personal protective equipment.

Employee-furnished tools of any type must meet all OSHA’s Safety and ANSI requirements.

Required Personal Protective Equipment (PPE) will be used appropriate to the hazards associated with the tool’s use. Generally, this means safety glasses and appropriate gloves at a minimum.

Safety Railings and Other Fall Protection

- Every open-sided floors and platforms four feet or more above adjacent floor/ground level will be guarded by a standard railing (top and mid rail, toeboard if required).
- All stairways of four or more risers will be guarded by a handrail or stair rails on the open side. Handrails or stair rails will be provided on both sides if the stairs are more than 44 inches wide.
- When a hole or floor opening is created during a work activity, a cover or a barricade must be installed immediately.
- Safety harnesses, belts, lanyards, lines, and lifelines may be used in lieu of other fall protection systems to provide the required fall protection.
- Adjustment of lanyards must ensure that a fall would be no more than six feet, and all tie-off points must be at least waist high.

Scaffolds

- Scaffold platforms more than 10 feet above the ground, floor, or lower level will have standard guardrails (consisting of top rail, midrail, and toeboard) installed on all open sides and ends of platforms.
- Planking will be laid tight, overlap at least 12 inches, and extend over end supports 6 to 12 inches.
- Mobile scaffolds will be erected no more than a maximum height of four times their minimum base dimension.
- Scaffolds will not be overloaded beyond their design loadings.

Forklifts

Authorized employees and only employees who have successfully completed the Safe Forklift Operator training course may operate the college’s forklift. This training is scheduled and conducted by an authorized instructor through the North Carolina Department of Transportation (NCDOT). Authorized employees will be given specific instruction for the forklift owned and operated by the college.

- Pre-Operational Inspection: Authorized employees will conduct an inspection of the forklift prior to operating the equipment. This inspection shall include checking fluid levels, pressures, leaks, tire condition, horns/alarms, mast/forks, controls/gauges, and safety equipment. Never operate equipment that is unsafe.
• **Safety Equipment:** Authorized employees will wear the safety belt when operating the forklift. Alarms and safety equipment shall not be disabled or bypassed. The forklift should have a working backup alert.

• **Operation:** Never allow passengers to ride on the forklift. Never use the lift or forks to raise or lift an employee(s) unless an approved work platform with fall protection is used. Never raise the load in an attempt to see under the load. The use of forklifts outdoors is dangerous and can present hazards not found in a warehouse. Be aware of changing terrain, bumps, or seams that may cause the load to shift. Always drive up and back down ramps and steep inclines when carrying a load. Keep speeds low and avoid sudden braking. Always check behind and to both sides before backing up.

• **Picking Up a Load:** Make sure the load does not exceed the capacity of the forklift. Position the forks and drive into the load as far as possible. Make sure the load is balanced and secure. Check for overhead obstructions. Tilt the load back slightly and lift to proper height (usually two to four inches from the floor.) Never allow anyone to stand or move under the load while it is raised to be placed. Stop the forklift completely before raising a load to be placed.

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**Excavations and Trenches**

• Any excavation or trench five feet or more in depth (or less than five feet and showing potential of cave-in) will be provided cave-in protection through shoring, sloping, benching, or the use of trench shields. Specific requirements of each system are dependent upon the soil classification as determined by a competent person.

• A competent person will inspect each excavation/trench daily prior to start of work, after every rainstorm or other hazard-increasing occurrence, and as needed throughout the shift.

• Means of egress will be provided in trenches four feet or more in depth so as to require no more than 25 feet of lateral travel for each employee in the trench.

• Spoil piles and other equipment will be kept at least two feet from the edge of the trench or excavation.

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**Ergonomics**

Ergonomics is the science of fitting the job to the worker. When there is a mismatch between the physical requirements of the job and the physical capability of the worker, musculoskeletal disorders (MSDs) can result. Musculoskeletal disorders (MSDs) are a category of injuries that affect the body’s muscles, bones, ligaments, tendons, and nerves. Where feasible, the following MSD risk factors should be avoided: repetition and inadequate work/rest scheduling, forceful exertions, awkward and extreme positions of the body, and sustained or static positioning of the body. Be sure to report to your supervisor any existing discomforts that last more than a week. If you and your supervisor are unable to identify the source or find a solution, contact the Safety Officer for assistance.

As an employee, you are in the best position to evaluate the tasks you do each day. The following information is intended to provide you with the basic knowledge necessary to assess and correct your own job.

Here are some suggestions for setting up your workstation properly:

• Sit with your lower back against the chair, your upper legs parallel to the floor, and your feet flat on the floor or on a footrest.

• Adjust your table and chair so that your elbows are bent at right angles and your forearms are approximately parallel to the floor.

• Keep your wrists neutral (straight) by using a wrist rest that is the same height as the keyboard.
• Place your mouse (or other pointing device) on a surface close to and at the same height as your keyboard.
• Position your computer screen directly in front of you, approximately an arm’s length away, with the top of the screen at or slightly below eye level. Tip the screen back at an angle similar to that used when reading a book.
• Use a document holder to position work at eye level and close to the screen.
• Adjust your lighting and screen to prevent glare or use an antiglare filter.
• When performing tasks involving repetitive motions or awkward positions, take periodic stretching breaks or alternate with other tasks.

Filing Cabinets – Filing cabinets are a major cause of accidents and should be used with care.
• When caution is ignored, filing cabinets can pinch, cut, crush, or trip a user. Always be alert for a top heavy filing cabinet. It might tip over if a drawer is opened. Heavy filing cabinets shall be secured to the wall to prevent this.
• Exercise care in opening and closing file drawers. Open one file drawer at a time and close it with the handle, making sure your fingers are clear. Never close a drawer with your knee, elbow, or any other part of your body other than your hand. Close each drawer immediately after use, even if you plan to reopen it in a short time.
• Never climb on open file drawers.
• Properly store small non-slip step stools (used to access upper file cabinets) out of passageways.
• Wear finger guards to avoid paper cuts.
• Empty a file cabinet before moving it.
CHAPTER 3 – SPECIFIC AREA SAFETY GUIDELINES AND PROCEDURES

AUTOMOTIVE SHOP

Building 4, Rooms 4-160, 4-162, 4-164, 4-166 and 4-170

There is one basic rule that should be followed. Use common sense. If this rule is observed, then the following guidelines and safety precautions can be easily applied:

1. Report every injury and accident to the instructor no matter how slight.
2. Never work alone.
3. No horseplay of any kind is allowed.
4. No person is to operate or adjust any equipment unless he/she has first been told to do so by the instructor.
5. No person is to work in the shop without the instructor’s knowledge.
6. Wash thoroughly with soap and hot water after handling fuels and solvents, especially before eating.
7. Do not eat in the shop.
8. Never mix solutions near your face and eyes.
9. Keep fingers away from your eyes and mouth while working in the shop.
11. Discard all trash in the trash can or appropriate container.
12. Keep aisles clear as best as possible.
13. In case of fire, notify the instructor immediately.
14. Oil and rags shall not be allowed to accumulate on the floor around and beneath any equipment.
15. Spilled liquids of any kind should be cleaned up immediately.
16. Do not attempt to lift heavy items. Ask for assistance if the item is too heavy and cannot be broken down into smaller parts or packages.
17. Always read labels and follow directions given on the containers.
18. Avoid breathing direct fumes or vapors.
19. Never guess when using chemicals. Ask the instructor if you are not sure. Consult the Safety Data Sheet (SDS) for concise information when working with a chemical you are not familiar with.
20. Dispose of chemicals and solvents in an approved manner.
21. Only use those solvents the instructor has designated for cleaning.
22. Never use gasoline, benzene, toluene, and turpentine for cleaning. These are either highly flammable and/or toxic.
23. Emergency disconnect switches, also called panic buttons, should only be pushed in case of an emergency or an apparent emergency and should not be used as a joke.
24. Avoid wearing jewelry or remove jewelry from fingers, wrist, and neck.
25. No person who has been authorized to operate a machine should allow any other person to “take a turn” at operating that machine or to make any adjustment to that machine.
26. Persons observing the operation of a machine must keep back, out of the operator’s way, so as not to impede his/her operation or control of that machine.
27. Observers must keep their hands off the machine and out of the machine.
28. Machinery must be operated in the manner and at the speed demonstrated by the instructor.
29. Only those adjustments authorized by the instructor should be performed, and then only in the manner demonstrated by the instructor.
30. The floor and aisle around a machine must be kept free of oil, paper, and other debris.
31. Use of safety glasses is required during various work activities, such as drilling, grinding, hammering, battery servicing, and air conditioning servicing.
32. Use of jack stands is required when using a floor jack to raise vehicle.
33. Use of brake cleaning equipment is required anytime work is being done which would cause any exposure to asbestos.
34. Tables should not be used as a depository for books, lunches, or other items or as a workbench.
35. Always use the correct tool for the job; do not improvise.
36. When making repairs, if the correct tool is not available, ask the instructor.

CHEMICAL AND BIOLOGICAL TEACHING LABORATORIES


All teaching laboratories will follow the guidelines outlined in the college’s Chemical Hygiene Plan. All chemical safety hoods are also inspected annually for compliance to minimum flow rates. A sticker is affixed to every hood to show the optimal opening of the sash-door for correct air flow rate.

ELECTRICAL LAB SAFETY GUIDELINES

Building 4, Room 4-115 and 4-129
1. Do not apply voltage to a circuit without the instructor’s approval.
2. When working on electrical circuits, “always keep one hand in your pocket.”
3. Remove all jewelry before working with electrical circuits.
4. Do not assume the power is off; measure the voltage with a voltmeter to be sure.
5. Do not “horseplay.”
6. Never remove the grounding prong of a three-wire input plug.
7. Keep floors and aisles clear.
8. Know the locations of the nearest fire extinguishers.
9. When cutting or nipping wire, have the wire pointed away from other students.
10. Follow all other guidelines designated by the instructor.
11. If you have questions, ask your instructor.

ELECTRONICS LABORATORY GUIDELINES

Building 4, Room 4-115 and 4-129
1. No horseplay will be permitted.
2. No food or drinks will be consumed in the laboratory. The use of tobacco products is not permitted in college buildings.
3. Use common sense at all times. THINK!
4. Learn to use all tools and equipment safely. If you have questions, ask your lab instructor.
5. Be certain all circuits and test equipment are properly connected before applying power. If you have questions, ask your lab instructor.
6. Make sure meters are set to proper range and scale before making measurements.
7. Remove conductive (metal) jewelry such as watches, rings, and bracelets before working on energized circuits.
8. When working with high-voltage circuits, keep one hand behind your back at all times.
9. Utilize all safety equipment and follow procedures specified by your instructor.
10. Disconnect electrical devices by pulling on the connector or plug; do not pull the lead or line cord.
11. Report all damaged or malfunctioning equipment, components, and tools to your lab instructor.
12. Discharge capacitors before attempting to make circuit repairs.
13. Properly store all tools, components, and equipment at the end of each work period.
14. Take care of your equipment.

GROUNDSKEEPING SAFETY GUIDELINES

1. No one under 18 years of age shall operate mowers, edgers, weedeaters, or tractors.
2. Safety glasses shall be worn by employees when operating weedeaters, blowers, and edgers.
3. Ear protection shall be provided to employees, and employees are encouraged to use this protection when they are using mowing equipment and blowers.
4. Employees should exercise caution when they are working in areas that contain harmful plants and stinging insects, such as wasps, hornets, etc.
5. All employees shall be instructed in the proper handling of poisons or other hazardous substances. Consult Safety Data Sheets for concise information on handling chemicals.
6. Designated agricultural toxins shall be applied to foliage by trained and/or licensed personnel wearing appropriate Personal Protective Equipment (PPE).
7. All fuel-powered tools shall be stopped while being refueled, serviced, or maintained.
8. Fuel must be transported, handled, and stored in approved safety cans.

HOUSEKEEPING SAFETY GUIDELINES

1. All custodial personnel shall observe the safety guidelines applicable to any department in which they are working and complete any required safety training.
2. All elevated work shall be performed using an appropriate ladder.
3. Proper protective apparel such as gloves, masks, and/or safety glasses shall be worn in compliance with the infection control or hazardous materials procedures.
4. Warning signs or devices must be in place while work is being performed. These signs or devices include, but are not limited to, wet floor signs or other appropriate barricades.
5. Keep all traffic areas free of debris or litter that could cause a fall.
6. Look for wet spots or standing water on traffic areas and take appropriate steps to eliminate these hazards.
7. Do not leave carts, ladders or other maintenance devices in traffic areas.
8. Do not block exits with housekeeping or maintenance equipment.
9. Report any accidents, chemical spills, or bloodborne pathogen hazards to your supervisor.

MACHINE TECHNOLOGY SAFETY GUIDELINES

1. Wear safety glasses at all times while in lab areas.
2. Safety-type shoes are suggested. Never wear sandals in the lab areas.
3. Never wear shorts in lab areas.
4. Wear short sleeve shirts or roll long sleeves up in the lab areas.
5. Do not carry files or wrenches in pocket.
7. Clean up oil from floor immediately after a spill.
8. Use your legs and not your back when lifting objects.
9. Use a brush for cleaning machines and not the air hose.
10. If injury occurs, report it immediately to the lab instructor.
11. Do not attempt to measure parts while a machine is running.
12. Be sure unused materials or parts are stored properly.
13. Do not horseplay in the lab areas.
14. Do not wear jewelry or loose clothing while operating machines.
15. Never use a file without a handle on the tang.

MAINTENANCE DEPARTMENT SAFETY GUIDELINES
1. All maintenance personnel will observe the safety guidelines applicable to any department in which they are working and complete any required safety training.
2. When moving a heavy or awkward object, use the correct tools such as pry bars, lever trucks, hand trucks, portable dollies, etc. To lift heavy or awkward objects, use proper lifting techniques, such as the using the legs and not the back.
3. All elevated work shall be performed using an appropriate ladder.
4. Operating and safety instructions posted on all machines will be strictly observed.
5. Public access areas under renovation, alteration, excavation, or modification shall be barricaded from general access by use of traffic cones, yellow caution tape, or other warning devices.
6. When operating a college vehicle (van, truck, forklift, tractor), the operator must not exceed 10 miles per hour while on campus, stop at all crosswalks, and give pedestrians the right of way.
7. Before backing a vehicle, the driver must look to the rear and sound the horn. If visibility is blocked, the driver should ask an observer to direct movement.

HVAC SAFETY GUIDELINES
Building 20, Room 20-134
1. Electrical power should always be off and tagged when installing or hooking up equipment in a panel.
2. Whenever possible, electrical power to HVAC systems should be disconnected before service or repair.
3. Use a voltmeter or test equipment to check power before working on electrical equipment or control wiring.
4. Make sure all drills and/or hand tools have a ground or are double insulated.
5. Do not stand on a wet or damp area when checking power.
6. Close all power boxes before power is applied.
7. Make sure a fire extinguisher is available when using gas or electrical welding.
8. Use a mechanical striker to light a torch.
9. Never weld on a closed tubing (low or high with pressure inside line).
10. When welding next to combustible materials, use a shield of non-combustible materials for insulation.
11. Make sure all motor pulleys have a guard.
12. Do not try to stop a fan or motor by gripping the belts.
13. Power equipment will be plugged into wall receptacles with power switches in the “off” position.
14. Electrical equipment should be unplugged by grasping the plug and pulling. Do not pull or jerk the cord to unplug the equipment.
15. Frayed, cracked or exposed wiring or equipment cords shall be replaced.

WELDING SHOP SAFETY GUIDELINES

Building 20, Room 20-133

1. Safety glasses should be worn at all times in the welding shop. Proper lens in cutting goggles and welding helmet must be checked and in good condition at all times for eye protection.
2. Do not operate the welding torches or machines before checking them for loose tips or electrical connections.
3. Never wear loose clothing, clothing with oil, or flammable materials in the welding shop.
4. Never wear tennis shoes or sandals in the welding shop; boots or safety shoes are required.
5. Always wear gloves when working with hot metal or when cutting or welding.
6. Keep work area clean.
7. Keep shop walkways open and clear.
8. Do not horseplay in the welding shop.
9. Make sure the ventilation system is turned on and never weld without ventilation.
10. Always be alert for hazardous conditions and immediately report any to the instructor.
11. Report any injury or accident to the instructor immediately.
CHAPTER 4 – OCCUPATIONAL HEALTH AND SAFETY PROGRAMS

The Occupational Health and Safety Guidelines and Regulations specify various individual programs that are applicable to our college. These programs include:

- Hazard Communication Program
- Confined Space Entry Program
- Occupational Noise Exposure/Hearing Conservation Program
- Lockout/Tagout Program
- Chemical Hygiene Plan
- Exposure Control Plan
HAZARD COMMUNICATION PROGRAM

PURPOSE
Durham Technical Community College is firmly committed to providing each of our employees a safe and healthy work environment. The purpose of this policy is to protect our employees and students as well as the public from injuries or illnesses that may result from exposure to hazardous chemicals or substances within our workplace.

There is no job so vital or urgent as to justify employee overexposure to a hazardous chemical. Employees will proceed with a job only after being satisfied that it is safe for them to proceed.

RESPONSIBILITIES
The specific responsibilities of the Safety Compliance Officer include the following:
- Maintaining an up-to-date Hazard Communication Program;
- Ensuring that a Hazardous Chemicals Inventory List exists for Durham Tech;
- Ensuring that Durham Tech has a copy of a Safety Data Sheet (SDS) for each chemical listed;
- Ensuring that an adequate supply of hazard warning labels are maintained;
- Ensuring that general hazard and communication training is provided to all applicable employees;
- Maintaining training records for employees who have completed Hazard Communication training and keeping them up to date;
- Keeping a master copy of the Hazard Communication program and all SDS’s on file;

Each Department Head has the following responsibility:
- Ensuring that materials are properly labeled within their work areas;
- Ensuring that Safety Data Sheets are obtained with any new materials received; and
- Ensuring that each employee is trained on any non-routine chemicals that may be used in their work areas.

Each Employee is responsible for learning and following the requirements which are part of this program.

ACCESS TO THE WRITTEN PROGRAM
All or any part of this written Hazard Communication Program is available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health (OSHA), and the Director of the National Institute for Occupational Safety and Health (NIOSH) on the Durham Tech intranet or through your supervisor.

DEFINITIONS
Acute Hazard - Symptoms develop immediately or within days after exposure. Sometimes associated with brief and/or high concentrations of exposure.

Asphyxiant - A vapor or gas that can cause unconsciousness or death by suffocation (lack of oxygen). Simple asphyxiant act by displacing the oxygen available in the air so the body cannot take in enough oxygen (i.e. carbon dioxide, nitrogen, helium). Chemical asphyxiant act by interfering with the body’s use of oxygen even though adequate oxygen is present (carbon monoxide, cyanide).
**Boiling Point (BP)** - Temperature at which a liquid changes to a gas. Solvents with low boiling points will volatilize readily. Examples include benzene, methyl alcohol, mercury, and toluene.

**Carcinogen** - A substance that causes cancer or is suspected of causing cancer in humans.

**Chemical** - Any element, chemical compound, or mixture of elements and/or compounds.

**Chronic Hazard** - Symptoms or effects develop slowly over a long period of time and with repeated contact.

**Combustible** - Ability of a solid, liquid, or gas to ignite and burn. Chemicals with a flash point 100°F or above are considered combustible.

**Corrosive** - A chemical that attacks and destroys whatever it comes in contact with and can cause permanent damage or destroy living tissue. Vapors from corrosives can damage the nose, mouth, and throat.

**Evaporation Rate** - How long a liquid takes to change into a vapor (evaporate). Butyl acetate has a relative evaporation rate of 1. A chemical with a higher number evaporates faster; one with a lower number evaporates slower.

**Exposure or Exposed** - An employee is subjected in the course of employment to a chemical that is a physical or health hazard and includes potential (e.g. accidental or possible) exposure. “Subjected” in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact, or absorption).

**Flammability** - Ability of a solid, liquid, or gas to ignite and produce a flame. If a chemical has a flash point below 100°F, it is considered a flammable.

**Flash Point** - The lowest temperature at which a chemical’s vapors are concentrated enough to ignite. The lower the flash point, the more dangerous the material. Examples: gasoline’s flash point is -45°F. Diesel fuel #2 has a flash point of +125°F.

**Hazardous Chemical** - Any chemical which is a physical hazard or a health hazard.

**Hazard Warning** - Means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s).

**Health Hazard** - Includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins and neurotoxins agents which damage the lungs, skin, eyes, or mucous membranes.

**Identity** - Means any chemical or common name which is indicated on the Material Safety Data Sheet for the chemical. The identity used shall permit cross-references to be made among the Hazardous Chemical Inventory List, the label, and the Material Safety Data Sheets.

**Irritant** - A chemical that causes temporary inflammation (redness, swelling, irritation).
**Label** - Means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

**Melting Point** - Temperature at which a solid changes to a liquid.

**pH** - Means used to express the degree of acidity or alkalinity of a solution. A pH of 7 is neutral. Numbers increasing from 8 to 14 indicate greater alkalinity (bases/alkalies). Numbers decreasing from 6 to 0 indicate greater acidity (acids).

**Physical Hazard** - Means a chemical which is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive), or water-reactive.

**Safety Data Sheet (SDS)** - Means written or printed material concerning a hazardous chemical which is prepared in accordance with 29CFR1910.1200(g).

**Sensitizer** - A material that causes little or no reaction at first but which can cause an “allergic” reaction on repeated exposure. Skin sensitization is the most common form, but respiratory sensitization is also known to occur from isocyanates and epoxy resins.

**Specific Gravity** - Density (or heaviness) of a chemical compared to water, which has a relative value of 1.0. Insoluble materials with specific gravity of less than 1.0 will float in (or on) water. Insoluble materials with specific gravity greater than 1.0 will sink in water. Most (but not all) flammable liquids have specific gravity less than 1.0 and, if not soluble, will float on water -- an important consideration for fire suppression.

**Vapor Density** - Density (or heaviness) of a vapor compared to air, which has the density of 1. If the chemical’s vapor density is higher than 1, the vapor is heavier than air and will concentrate in low places -- along or under floors, in sumps, sewers, manholes, in trenches and ditches. Examples include propane, hydrogen sulfide, ethane, butane, chlorine, sulfur dioxide. If the chemical’s vapor density is less than 1, the vapor will rise in the air and dissipate (unless confined); examples include acetylene, methane, and hydrogen.

**Vapor Pressure** - Measures the volatility (how quickly a substance forms a vapor at ordinary temperatures) of a liquid -- that is, how easily a liquid evaporates. The higher the number, the faster the liquid evaporates.

**Upper and Lower Flammable Limits (UFL and LFL)** - The highest and lowest concentrations (% of substance in air) that will produce a flash of fire when an ignition source (heat, arc, or flame) is present. Between the UFL and LFL, the substance is likely to ignite. Above the UFL, the mixture is too “rich” to burn. Below the LFL, the mixture is too “lean” to burn. The UEL and LEL (upper and lower explosive limits) provide the minimum and maximum concentration of the chemical’s vapor in the air required for an explosion to occur.

**TRAINING**

Prior to initial task assignment, all employees at Durham Tech, including temporary employees, working with or potentially exposed to hazardous chemicals, will be appropriately informed and trained concerning the potential hazards to which they may be exposed.

All employees at Durham Tech will be informed of the details of the Hazard Communication Program, including an explanation of the labeling system and the Safety Data Sheets (SDS), and how employees can use...
the appropriate hazard information. The Safety Compliance Officer is responsible for the overall coordination of the training program. Employees will be provided with training when new hazardous chemicals are introduced and added to the chemical inventory and before non-routine tasks are to be performed that could involve exposure to hazardous chemicals.

The extent of information transmitted to employees during training sessions will be dictated by the degree of hazard the chemicals present. The basic elements of the training program will include the following:

- Type and location of hazardous chemicals used within our facilities;
- Methods of detecting the presence or release of hazardous chemicals;
- Personal protective equipment and methods of protecting against chemical exposure;
- An explanation of a Safety Data Sheet (SDS);
- The text of the OSHA Hazard Communication Standard (29 CFR 1910.1200); and
- This written program, including the Hazardous Chemicals Inventory List, procedures for chemical labeling, handling non-routine tasks, and the college’s contractor policy.

Reinforcement of training will be conducted through topics covered during health and safety meetings, as appropriate.

**RECORDS MAINTENANCE**

The Safety Compliance Officer will maintain duplicate copies of the training records. These records will be provided, by the Supervisor to the Safety Compliance Officer prior to a new employee being exposed to job hazards, specific to their duties, and annually thereafter.

**HAZARD DETERMINATION AND INVENTORY**

The initial hazard determination of chemicals is performed by manufacturers or importers. Every hazardous substance known to be present in the Durham Tech workplace will be listed on the Hazardous Chemicals Inventory List. This list will serve as an index to the Safety Data Sheet (SDS) files. The identity of the substance appearing on the Hazardous Chemicals Inventory List will be the same name that appears on the manufacturer's label, in-house label, and the Safety Data Sheet (SDS) for that substance.

**SAFETY DATA SHEETS (SDSs)**

A Safety Data Sheet (SDS) containing the information required by the Hazard Communication Standard will be kept for each substance listed on Durham Tech’s Hazardous Chemicals Inventory List. The SDS will be the most current one supplied by the chemical manufacturer, importer, or distributor.

**LABELING**

No hazardous chemicals will be accepted for use at Durham Tech or shipped from the college to any outside location unless labeled with at least the following information:

- Identity of the hazardous chemical(s);
- Appropriate hazard warnings (physical and/or health hazards); and
- Name and address of the chemical manufacturer, importer, or other responsible party.

All in-house containers of hazardous chemicals will be labeled with at least the following information:

- Identity of the hazardous chemical(s), including the trade and common names; and
• Appropriate hazard warnings (physical and/or health hazards).

No label is to be defaced or removed when a material is received or in use. If a label becomes unreadable or material is poured into a different container, the person using the material is responsible for labeling the container appropriately and including an in-house warning label.

**CONTRACTOR POLICY**

Any hazardous substance brought to Durham Tech by an outside contractor must be coordinated with the college’s Safety Compliance Officer. The contractor and Durham Tech’s Safety Compliance Officer shall supply one another with a list of the hazardous chemicals and the corresponding SDS for the materials to which any employees will be potentially exposed in the course of their work.

Outside contractors must be provided with all necessary information concerning the potential hazards of the substances to which they may be exposed and appropriate protective measures required to minimize their exposure.
CONFINED SPACE ENTRY PROGRAM

PURPOSE

This Permit-Required Confined Space (PRCS) Program covers all employees who enter permit-required confined spaces (also referred to as permit spaces) and contains the practices and procedures for their safe entry.

RESPONSIBILITIES

The PRCS Program is coordinated by the Durham Tech Facilities Services Director.

ACCESS TO WRITTEN PROGRAM

The Facilities Services Director will maintain a current copy of the PRCS Program and make it available to all employees.

DEFINITIONS

Acceptable entry conditions means the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

Attendant means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant’s duties assigned in the employer’s PRCS Program.

Authorized entrant means an employee who is authorized by the employer to enter a permit space.

Blanking or blinding means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Confined space means a space that:

- Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
- Is not designed for continuous employee occupancy.

Double block and bleed means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Emergency means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

Engulfment means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.
**Entry** means the action by which a person passes through an opening into a permit-required confined space. Entry includes work activities in that space and is considered to have occurred as soon as any part of the entrant’s body breaks the plane of an opening into the space.

**Entry permit (permit)** means the written or printed document that is provided by the employer to allow and control entry into a permit space.

**Entry supervisor** means the person (such as the department head, supervisor, or lead person) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

Note: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this section for each role he/she fills. Also the duties of the entry supervisor may be passed from one individual to another during the course of an entry operation.

**Hazardous atmosphere** means an atmosphere that may expose employees to the risk of death, incapacitation, impairment or ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- Airborne combustible dust at a concentration that meets or exceeds its LFL (Note: This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet or less);
- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
- Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of 29 CFR 1910, OSHA standards for General Industry, and which could result in employees’ exposure in excess of its dose or permissible exposure limit (Note: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment or ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision); and
- Any other atmospheric condition that is immediately dangerous to life or health (Note: Air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communications Standard 1910.1200 of this part, or published information of the (ACGIH) can provide guidance in establishing acceptable atmospheric conditions).

**Hot work permit** means the employer’s written authorization to perform operations (for example, riveting, welding, cutting, burning and heating) capable of providing a source of ignition.

**Immediately dangerous to life or health (IDLH)** means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual’s ability to escape unaided from a permit space. (Note: Some materials, hydrogen fluoride gas and cadmium vapor, for example, may produce immediate transient effects that, even if severe, may pass without medical attention but are followed by sudden, possibly fatal collapse within 12 to 72 hours after exposure. The victim “feels normal” from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be “immediately” dangerous to life or health.)
**Inerting** means the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible (Note: This procedure produces an IDLH oxygen-deficient atmosphere).

**Isolation** means the process by which a permit-required confined space is removed from service and completely protected against the release of energy and material into the space by such means as blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout and tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

**Line breaking** means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, toxic, or inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

**Non-permit confined space** means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

**Oxygen-deficient atmosphere** is an atmosphere containing less than 19.5 percent oxygen by volume.

**Oxygen enriched atmosphere** means an atmosphere containing more than 23.5 percent oxygen by volume.

**Permit-required confined space (permit space)** means a confined space that has one or more of the following characteristics:
- Contains or has a potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- Contains any other recognized serious safety or health hazard.

**Permit-Required Confined Space Program (Permit Space Program)** means the Durham Tech overall program for controlling, and, where appropriate, for protecting employees from permit space hazards and for regulating employee entry into permit spaces.

**Permit system** means the Durham Tech written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

**Prohibited condition** means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

**Rescue service** means the personnel designated to rescue employees from permit spaces.

**Retrieval system** means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

**Testing** means the process by which the hazards that may confront entrants or a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space. (Note: Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to and during entry).
TRAINING

All entry supervisors, attendants, and entrants are trained initially, and refresher training is provided when duties and space hazards change or whenever an evaluation determines inadequacies in the employees’ knowledge. The training provides employees with the necessary understanding, skills, and knowledge to safely enter, work in, and exit permit spaces. All training is documented with the employee’s name, the trainer’s signature or initials, and the training dates.

Specific training requirements include but are not limited to the following:

- Each affected employee is trained;
- Training is provided:
  - Before the employee is first assigned permit space entry duties;
  - Whenever there is a change in permit space operations that present a new hazard unknown by the employee; and
  - Whenever there is reason to believe either there are deviations from the entry procedures or inadequacies in the employees’ knowledge or use of the procedures;
- The training establishes employee proficiency in the required duties and introduces new or revised procedures, as necessary; and
- The training is certified and contains each employee’s name, the trainer’s signature or initials, and the training dates.

RECORDS MAINTENANCE

The training certification is available for inspection by the employee or his/her authorized representatives’ by contacting the supervisor.

PERMIT-REQUIRED CONFINED SPACE PROGRAM

General

This Permit-Required Confined Space Program is designed to prevent unauthorized entry into permit-confined spaces, identify and evaluate hazards, and establish procedures and practices for safe entry, including testing and monitoring conditions. The program requires that an attendant be stationed outside permit spaces during entry; procedures to summon rescuers and prevent unauthorized personnel from attempting rescue; and a system for preparing, issuing, using, and canceling entry permits. It also includes procedures for entry operations and canceling entry permits as well as review of the permit program at least annually and additionally as necessary.

The following measures are implemented as necessary to prevent unauthorized employee entry into permit spaces:

- All affected employees have been informed through initial safety training about the characteristics and presence of permit spaces.
- Some permit spaces are also posted with danger signs to supplement the safety training. However, the posting of danger signs is not all-inclusive and each employee must know what a permit space is, the usual hazards involved, and what precautions are required to ensure safe entry so he/she can help ensure his/her own protection. The following means, procedures, and practices necessary for safe permit space entry operations are to be implemented as required:
- Acceptable Entry Conditions - All permit space entrants protected from atmospheric hazards including oxygen deficiency (less than 19.5%) or increased oxygen concentration (greater than 23.5%), toxic
materials (above the exposure limit), flammable gases and vapors, asphyxiating, and engulfment, configuration or any other recognized hazards.

- Isolating the Permit Space - All hazardous energy sources associated with permit spaces which may expose entrants to potential injury are isolated, locked out, and/or tagged out prior to entry.
- Purging, Inerting, Flushing, or Ventilating Permit Spaces - All permit entry spaces are thoroughly purged, made inert, flushed, and/or ventilated as necessary to ensure the elimination and/or control of all hazards which may cause entrants injury and/or illness.
- External Hazards - Pedestrian, vehicle, or other barriers are provided as necessary to protect entrants from external hazards.
- Verifying Acceptable Conditions - Conditions in permit spaces are tested and monitored throughout entry as necessary to ensure that the conditions in permit spaces are acceptable for the duration of the authorized entry.

Equipment
The following equipment is provided at no cost to employees and must be maintained properly and used properly to ensure the safety of employees entering permit spaces:

- Testing and monitoring equipment
  - The college owns an oxygen meter and it will be utilized prior to entry.
- Ventilating equipment
  - Dual purpose, push/draw ventilation system for sewer system manhole will be used as appropriate.
- Communications equipment
  - The college utilizes a two-way radio communications system.
  - Cellular telephones will be used to summons EMS personnel if needed.
- Personal protective equipment
  - Hard hats, steel-toed shoes, rain suits, full-body harness, gloves, and eye protection will be used as appropriate.
- Lighting equipment
  - Portable lighting will be utilized and will be of a type that is safe for confined space entry, such that sparks and ignition sources are eliminated.
- Barriers and shields
  - Type II Portable barricades and 36” traffic cones will be used as appropriate.
- Ingress and egress equipment (to be rented) will include
  - Vertical entry tripod and winch system; and
  - Full-body harness/lifelines.

Evaluating Permit Space Conditions
Permit space conditions are evaluated (tested/monitored) when entry operations are conducted as follows:

- The entry conditions in the permit space are tested to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is not feasible because the space is large or is part of a continuous system (such as a sewer). In such a case, pre-entry testing is performed to the extent feasible before entry; and entry conditions are continuously monitored in work areas.
- The tests and monitoring are conducted in permit spaces as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
- When conducting tests for atmospheric hazards, oxygen tests are conducted first, then combustible gases and vapors tests, and then toxic gases and vapors test. The tests are conducted in order to
ensure that test instruments function properly since an oxygen deficient atmosphere may adversely affect the test results.

**ATTENDANTS**

**General**
At least one attendant is required outside the permit space into which entry is authorized for the duration of the entry operation.

**Duties**
Required duties of all attendants are as follows:
- To know the hazards that entrants may face during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- To be aware of possible behavioral effects of hazard exposure in entrants;
- To continuously maintain an accurate accounting of entrants in the permit space and ensure a means to accurately identify authorized entrants;
- To remain outside the permit space during entry operations until relieved by another attendant (once properly relieved, attendants may participate in other permit space activities, including rescue if they are properly trained and equipped);
- To communicate with entrants as necessary to monitor entrant status and alert entrants of the need to evacuate;
- To monitor activities inside and outside the space for continuously determining if it is safe for entrants to remain in the space and for ordering the entrants to immediately evacuate if:
  - The attendant detects a prohibited condition;
  - The attendant detects entrant behavioral effects of hazard exposure;
  - The attendant detects a situation outside the space that could endanger the entrants; or
  - If the attendant cannot effectively and safely perform all the attendant duties.
- To summon rescue and other emergency services as soon as the attendant determines that entrants need assistance to escape the permit space hazards;
- To take the following action when unauthorized persons approach or enter a permit space while entry is underway:
  - Warn unauthorized persons that they must stay away from the permit space;
  - Advise unauthorized persons that they must exit immediately if they have entered the space; and
  - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.
- To perform non-entry rescues as specified by that rescue procedure and entry supervisor; and
- Not to perform duties that might interfere with the attendant’s primary duties of monitoring and protecting the entrants.
ENTRANTS

General
All entrants must be authorized by the entry supervisor to enter permit spaces, must have received the required training, must use the proper equipment, and must observe the entry procedures and permit. The following entrant duties are required:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Properly use the equipment required for safe entry;
- Communicate with the attendant as necessary to enable the attendant to monitor the status of the entrants and to enable the attendant to alert the entrants of the need to evacuate the space if necessary;
- Alert the attendant whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation or if any prohibited condition is detected; and
- Exit the permit space as quickly as possible whenever:
  - The attendant or entry supervisor gives an order to evacuate the permit space;
  - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation;
  - The entrant detects a prohibited condition; or
  - An evacuation alarm activated.

ENTRY SUPERVISORS

General
Entry supervisors are responsible for the overall permit space entry and must coordinate all entry procedures, tests, permits, equipment and other relevant activities. The following entry supervisor duties are required:

- Know the hazards that may be faced during entry, including information on the mode, signs, or symptoms, and consequences of the exposure;
- Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted, and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;
- Terminate the entry and cancel the permit when the entry is complete or when there is a need for terminating the permit;
- Verify that rescue services are available and that the means for summoning them are operable;
- Remove unauthorized persons who enter or attempt to enter the space during entry operations; and
- Determine, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with the permit terms and that acceptable entry conditions are maintained.

TESTERS AND MONITORS

General
The accuracy of testing and monitoring equipment may be significantly affected under certain conditions of humidity, pressure, or temperature or by the presence of interfering chemicals. However, if the equipment is properly selected, calibrated, and maintained and operated by well-trained employees, the confined space testing and monitoring needs can be effectively met. All persons performing tests and monitoring for permit space are to be properly trained in the use and limitations of any testing and monitoring equipment.
If the college does not own monitoring equipment, the proper type of equipment must be obtained prior to any permit being issued. All employees are to be trained in the proper use and maintenance before being assigned to use the equipment.

**Procedures for Atmospheric Testing:**
Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the permit space and verification that acceptable entry conditions exist for the confined space. (See APPENDIX A: Checklist to Evaluate the Confined Space.)

**Evaluation Testing** - The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data and development of the entry procedure is performed by or reviewed by a technically qualified professional (e.g., certified industrial hygienist, registered safety engineer, certified safety professional, etc.) based on evaluation of all serious hazards.

**Verification Testing** - The atmosphere of a permit space which may contain a hazardous atmosphere is tested for residues of all contaminants identified by evaluation testing using permit-specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) are recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition.

**Duration of Testing** - Measurements of values for each atmospheric parameter are made for at least the minimum response time of the test instrument specified by the manufacturer.

**Testing Stratified Atmosphere** - When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope is to be tested a distance of approximately four feet in the direction of travel and to each side. If a sampling probe is used, the entrant’s rate of progress is slowed to accommodate the sampling speed and detector response.

**PERMIT SYSTEM**

**General**
The entry permit is a vital part of the permit space entry program, which documents that the required measures have been taken to ensure entrant safety. All pertinent safety requirements must be recorded on the permit, including the isolation, ventilation, tests and monitoring, personal protective equipment, and other equipment necessary for entrant safety. (See APPENDIX B: Confined Space Permit.)

**Requirements**
The following must be recorded/documented on the entry permit:
- The identity of the permit space, purpose of the entry, and the date and authorized duration of the entry permit;
- Names of authorized entrants (or other suitable tracking system);
- Current attendants’ names;
- Entry supervisor’s name (noted by signature), including original authorizing supervisor;
- Hazards of the space;
- Measures used to isolate the space and to eliminate or control the space hazards before entry;
• Acceptable entry conditions;
• Results of initial and periodic tests accompanied by the names or initials of the testers and time of the tests;
• Available rescue and emergency services and how to summon them;
• Communication procedures used by entrants and attendants to maintain contact during entry;
• Equipment, such as personal protective equipment, alarm systems, and rescue equipment, to be provided;
• Any other pertinent information necessary to ensure entrant safety; and
• Additional permits, such as hot work permits, which have been issued to authorize work in the space.

CONTRACTORS
All contractor entry into permit spaces must comply with all sections of the PRCS Program and related procedures.

RESCUE AND EMERGENCY SERVICES

General
Rescue and emergency services are provided by off-site local responders. The local Fire Department will respond to any emergencies within a permit-required confined space. Rescue and emergency service personnel will be given access to all permit spaces from which rescue may be necessary so they can develop appropriate rescue plans and practice rescue operations. Employees will be trained by an outside contractor in proper use of the proper gas monitor.

NON-ENTRY RESCUE
Retrieval systems and methods have been developed for entrants to use when entering permit spaces when the equipment does not increase the overall risk of entry and would not contribute to the rescue of the entrant. The systems are as follows:

• Tripod and winch with lifelines to use with full body harnesses for vertical entries.
• Each authorized entrant uses a full body harness, with a retrieval line attached at the center of the entrant’s back near shoulder level or above the entrant’s head.
• Retrieval lines are attached to a mechanical device or a fixed point outside the space so rescue can begin immediately after the rescuer becomes aware that rescue is necessary.
• Mechanical devices are available to retrieve entrants from vertical type permit spaces more than five feet deep.
• Material Safety Data Sheets (MSDS or SDS) and/or similar written information are kept at the worksite so that if entrants are exposed to substances requiring such information, it can be made available to the emergency responders or medical facility treating any exposed entrants.
OCCUPATIONAL NOISE EXPOSURE / HEARING CONSERVATION PROGRAM

PURPOSE

The purpose of this program is to provide guidelines for employees exposed to occupational noise and to comply with the OSHA Occupational Noise Exposure Standard 29 CFR 1910.95. The objective of the procedure is to provide guidelines to protect the hearing of those employees exposed to noise levels in excess of 85 dBA, to provide a uniform method of handling noise and hearing conservation for all departments, and to develop historical data.

RESPONSIBILITIES

The Safety Compliance Officer will oversee this program.

ACCESS TO WRITTEN PROGRAM

The Safety Compliance Officer will maintain a current copy of the program and make it available to all employees.

TRAINING

Annual training is required for all employees who are exposed to noise at or above an eight-hour time-weighted average (TWA) of 85 dBA. Information provided in the training program shall be updated to be consistent with changes in protective equipment and work process.

Each affected employee shall be informed of the following:

- The effects of noise on hearing;
- The purpose of hearing protection; the advantages, disadvantages, and attenuation of various types; and the instruction on selection, care and use; and
- The purpose of audiometric testing and explanation of the test procedure.

All employees exposed to an eight-hour TWA of 85 dBA or greater shall be included in this program.

The Hearing Conservation Program consists of the following components:

- Noise Level Monitoring and Evaluation;
- Noise Control;
- Audiometric Testing; and
- Hearing Protection.

RECORDS MAINTENANCE

Audiometric test records shall be retained on all employees and maintained for 30 years after the employee’s employment ceases. The records shall be maintained with the affected college Safety Compliance Officer or at another designated storage location.

NOISE LEVEL MONITORING AND EVALUATION

Monitoring of noise exposure levels shall be conducted to accurately identify employees who are exposed to noise levels at or above 85 dBA, averaged over eight working hours; this is called an eight-hour time-weighted average (TWA). The exposure measurement shall include all sound levels within an 80 dBA to 130 dBA range.
and shall be taken during a typical work situation. Measurements shall be obtained on the A scale of a standard sound level meter at slow response. [Note: Where high worker mobility or significant variations in sound level make area monitoring generally inappropriate, representative personal sampling (dosimetry) shall be conducted.]

Monitoring shall be repeated whenever a change in the process, equipment, or controls is suspected of increasing noise exposures to the extent that additional employees may be exposed to noise levels at or above 85 dBA as an eight-hour TWA or when the attenuation provided by the selected hearing protective devices is rendered inadequate. This re-evaluation of workplace noise shall be conducted within 60 days following the aforementioned changes.

Employees are entitled to observe the monitoring procedures.

Review of all employee complaints concerning noise shall be conducted within 60 days as follows:

- Screening of noise levels with a sound level meter performed by an outside contractor; and
- Conducting noise dosimetry on affected employees.

**Noise Exposure Evaluation**

Upon completion of a noise level monitoring of an area, noise dosimetry shall be conducted by an outside vendor on those employees potentially exposed to levels of noise in excess of an action level of 85 dBA or greater. Noise dosimetry shall be conducted on personnel based on their job description.

Noise dosimeters shall be capable of integrating all continuous, intermittent, and impulsive sound levels from 80 decibels to 130 decibels. All sound level meter readings and octave band analyses that indicate employee exposure shall be maintained on file at least 30 years in accordance with 1910.1020(d)(1)(ii). Each employee exposed at or above an eight-hour TWA of 85 dBA shall be notified of the results of the monitoring. The normal method of notification is by the Supervisor and Safety Officer presenting a memo to the employee noting the testing and results. All present must sign and date the memo, which is kept on file for documentation.

**NOISE CONTROL**

Noise control can be addressed by three main categories: engineering controls, administrative controls, and personal hearing protection. This section will address the first two controls.

The most desirable method of noise control is to apply engineering principles designed to reduce sound levels either at the source or within the hearing zone of the employee. This application can usually reduce noise to a desired level; however, economic considerations and/or operational necessities can make these controls impractical. It is the college’s policy to utilize engineering controls whenever feasible and practical to reduce employee noise exposures.

Whenever engineering controls are not feasible or practical, the use of administrative controls should be explored. (Note: Administrative controls may be used in conjunction with engineering controls.) Administrative controls include any administrative decision that results in lower noise exposures; including complying with purchase agreements that specify maximum noise levels for machinery. Administrative controls may include rotating jobs so that exposure times are reduced. This includes such measures as transferring employees from locations with high noise levels to locations with lower noise levels in order to reduce employee’s daily exposure to below the "action level." When administrative controls are not feasible
with regard to job rotation, other alternatives, including hearing protection will be utilized to reduce the employee’s daily noise exposure.

It is the college’s practice to use administrative controls whenever engineering controls are not feasible or practical to reduce employee noise exposure.

**AUDIOMETRIC TESTING**

**Criteria for Audiometric Testing**

Audiometric testing monitors the sharpness or acuity of an employee's hearing over time and provides an opportunity for employers to educate employees about their hearing and the need to protect it.

A baseline audiogram is the reference audiogram against which future audiograms are compared. Baseline audiograms shall be conducted for new hires that will work in areas with high levels of noise within six months. Any employees whose job contains exposure to an eight-hour time-weighted average (TWA) of 85 dBA shall be included in the baseline audiogram.

The annual audiogram shall be conducted within one year of the baseline. It is important to test hearing on an annual basis in order to identify changes in an employee’s hearing ability. Annual audiograms shall be routinely compared to baseline audiograms to determine whether the audiogram is accurate and to determine whether the employee has a change in hearing ability (that is, if standard threshold shift (STS) has occurred).

Standard threshold shift (STS) is defined as an average shift in either ear of 10 dBA or more at 2,000, 3,000, and 4,000 Hz. An averaging method of determining STS was chosen because it diminishes the number of persons falsely identified as having STS who are later shown not to have had a change in hearing ability. The annual audiogram shall be conducted for all employees who are exposed to noise levels equal to or in excess of an eight-hour time-weighted average (TWA) sound level of 85 dBA measured on the A scale. Employees who have the baseline audiogram conducted as a new hire shall receive an annual audiogram. A work history/hearing questionnaire is required on each employee tested. This questionnaire shall be updated with each annual test.

**Annual Hearing Test Guidelines**

- The annual audiogram shall be preceded by 14 hours without exposure to workplace noise; however, hearing protectors may be used as a substitute for this practice.
- An annual work history/hearing questionnaire is required.
- The audiometric examination shall be conducted by a certified audiometric technician (CAOHC), a trained physician, or a licensed or certified audiologist.
- The audiometer shall be acoustically calibrated annually in accordance with Appendix E of 29 CFR 1910.95. The audiometric examination shall be conducted in a booth/room meeting the criteria outline in 29 CFR 1910.95, Appendix, Table D-1. The booth/room shall have accurate sound level measurements made at least annually, using a Type 1 octave band analyzer/sound level meter.
- If an employee has an STS when exposed to noise at or above the action level, the following items shall be reviewed:
  - An employee shall be notified in writing within 21 days from the time the determination is made that their audiometric test results showed an STS.
A retest may be obtained within 30 days, and the results of the retest can be considered as the annual audiogram.

An employee not using hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them. An employee already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.

An employee with an STS may need to be referred for further testing if the professional determines that his/her test results are questionable or if he/she has an ear problem of a medical nature which is thought to be caused or aggravated by wearing hearing protectors. If the suspected medical problem is not thought to be related to wearing protectors, the employees must be informed in writing that he/she should see a physician.

A subsequent audiogram may be substituted for the original baseline audiogram if the professional supervising the program determines that the employee's STS is persistent. This substitution will ensure that the same shift is not repeatedly identified. The professional may also decide to revise the baseline if an improvement in the employee’s hearing has occurred. This will ensure that the baseline reflects actual hearing thresholds to the extent possible.

**Post-Test Guidelines**

All audiograms will be reviewed by college personnel consulting with a personal occupational physician or an audiologist.

**HEARING PROTECTION**

Hearing protective devices (HPD) shall be readily available at no cost to all employees exposed to an eight-hour time-weighted average of 85 dBA or greater and to employees that enter an area or perform a task requiring hearing protection. ([See APPENDIX C: Areas Requiring Hearing Protection](#), which includes lists the areas, activities, positions when needed and that require hearing protection.)

HPDs must be worn by the following:

- All employees exposed to an eight-hour TWA of 85 dBA or greater;
- Any employee entering an area in which hearing protection is required, where noise levels are 85 dBA or greater; and
- Any employee performing a task in which hearing protection is required, where noise levels are 85 dBA or greater.

The employees shall have an opportunity to select their HPDs from at least two different styles. Each department shall supply the HPDs, and the college Safety Officer shall have an additional supply. HPDs shall be evaluated to ensure that they attenuate noise level exposures to less than 90 dBA. For employees who have experienced a standard threshold shift, hearing protectors shall attenuate employee exposure to an eight-hour TWA of 85 dBA or below.
LOCKOUT/TAGOUT PROGRAM

SCOPE

This written program establishes guidelines and procedures for the control of hazardous energy (lockout/tagout), employee training, and periodic inspections per OSHA (Occupational Safety and Health Administration) 29 CFR 1910.147. It shall be followed to ensure that all machines and equipment are isolated from all potentially hazardous energy (locked out and/or tagged out) during service and/or maintenance activities where the unexpected energization, start-up, or release of energy could cause injury.

RESPONSIBILITIES

The Facilities Services Director will be responsible for this program.

ACCESS TO WRITTEN PROGRAM

The Facilities Services Director will maintain a copy of this program and make it available to all employees.

DEFINITIONS

Affected Employee: An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized Employee: A person who locks, implements a tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or equipment that must be locked or a tagout system implemented.

Energized: Connected to an energy source or containing residual or stored energy.

Energy Isolating Device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and in addition, no pole can be operated independently; a slide gate; a slip blind; a line valve; a block; and any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.

Lockout: The placement of a lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device: A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy-isolating device in the safe position and prevent the energizing of a machine or equipment.

Maintenance and/or Servicing: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment, and making adjustments or tool changes,
where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

**Tagout**: The placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.

**Tagout device**: A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy-isolating device in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.

**TRAINING**

Training will be provided by the Facilities Services Director or designee to employees. (See APPENDIX D: Lockout/Tagout Training.)

**RECORDS MAINTENANCE**

The Facilities Services Director will maintain all lockout/tagout records.

**GENERAL**

This written program covers any maintenance and/or servicing activities where employees may come in contact with machines and/or equipment and where the unexpected energization, start-up, or release of energy could cause injury. This program also applies whenever an employee is required to by-pass a guard, place any part of his/her body into an area on a machine or piece of equipment where work is actually performed (point of operation), or where an associated danger zone exists during a machine operating cycle. This program does not cover normal production operations unless the criteria listed above are met.

Lockout/tagout is a hazardous energy control program used to ensure that machines and equipment are totally isolated from all energy sources (electrical, hydraulic, pneumatic, kinetic, potential, thermal, chemical, and radiation). Locks will be used to secure switches and valves in the OFF or SAFE position. A tag will be attached as a warning device indicating the equipment may not be operated until the tag is removed.

**PROCEDURE**

This procedure applies to the control of hazardous energy during maintenance and/or servicing of machinery and equipment. Normal production operations are not covered by this procedure. Maintenance and/or servicing which takes place during normal production operations is covered by this procedure only as follows:

- If an employee is required to remove or bypass a guard or other safety device;
- If an employee is required to place any part of his/her body into an area on a machine or piece of equipment at the point of operation; and/or
- Where an associated danger zone exists during a machine operating cycle.

Exception to this are minor tool changes and adjustments and other minor servicing activities that take place during normal production operations. These activities include those that are routine, repetitive, and integral to the use of the equipment for production, provided that the work performed uses alternative measures, which provide effective protection for the employee. This procedure does not apply to work on cord and plug connected electric equipment if the employee has exclusive control of the disconnected cord and plug.
Lockout or tagout devices shall not be used on machinery or equipment that is designated to be removed from service.

**ENERGY CONTROL PROGRAM AUTHORIZATION**

Only authorized employees who have been trained in the type and magnitude of the energy, the hazards of the energy, the methods or means of isolating and/or controlling energy, the means of verifying effective energy control, and the purpose of the procedures to be used may begin to perform maintenance or servicing of machinery or equipment under lockout/tagout procedures.

**HARDWARE AND MATERIALS**

Lockout devices must be identified as such and not used for any other purpose. All locks used for energy isolation will be kept in a LOTO box at Durham Tech-identified facilities locations. The Facilities Services Director or his/her designee is responsible for distribution of the locks and security of keys. Both lockout and tagout devices must be capable of withstanding environmental conditions in the workplace (locks should not rust or tags deteriorate).

All tagout devices will be standard with a "DO NOT OPERATE" warning. [See APPENDIX E: The Control of Hazardous Energy (Lockout/Tagout)]. Each authorized employee will receive one lock and one key. The second key will be maintained in a locked supervisory key case in the employee’s department.

**ENERGY CONTROL PROCEDURES**

Application of Lockout or Tagout

The following information relates to the steps to be followed before work on equipment or before machinery has been started. Application of lockout or tagout shall be performed in the following sequence:

- **Notification:** Before lockout or tagout procedures begin, employees who operate the machine or equipment or those who work in the area around the machine or equipment must be notified that a procedure under lockout or tagout will be performed on the machine or equipment. The notification may be made by the employee performing the work or by a designated Durham Tech employee.

- **Preparation for Shutdown:** Before a machine or piece of equipment is isolated, the employee(s) who will perform the lockout or tagout must know the type and magnitude of the energy, the hazards of the energy to be controlled, the method or means of isolating and/or controlling the energy, the means of verifying effective energy control, and the purpose of the procedures to be used.

- **Machine or Equipment Shutdown:** The machine or equipment must be shut down in an orderly fashion to avoid any additional or increased hazard(s) to employees or to avoid damage to the machine or equipment as a result of the deenergization.

- **Machine or Equipment Isolation:** All energy-isolating devices that are needed to control the energy to the machine or equipment must be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

- **Applying Lockout or Tagout Devices:** The person(s) performing the lockout or tagout must attach a lockout or tagout device to each energy-isolating device. These devices must be placed in a manner so that they will hold the energy-isolating devices in the safe or off position.

If tagout devices are used, they must clearly indicate that the operation or movement of energy-isolating devices from the safe or off position is prohibited;

- **A tag shall never be used in place of a lock on an energy-isolating device that is capable of being locked;**
o If a tag cannot be attached directly to an energy-isolating device, it must be located as close as safely possible to the device and in a position that will be immediately obvious to anyone attempting to operate the device; and

o (Electrical Only) A tag used without a lock (as permitted) shall be supplemented by at least one additional measure that provides a level of safety equivalent to a lock:
  a. Removal of an isolating circuit element;
  b. Blocking of a controlling switch; and/or
  c. Opening of an extra disconnecting device.

Stored Energy: Following the application of lockout or tagout devices to energy-isolating devices, all potentially hazardous stored or residual energy must be relieved, disconnected, restrained, or otherwise controlled. If there is a danger that the stored energy will reaccumulate to a hazardous level, the person must continue to verify isolation until the servicing or maintenance is completed or until the possibility of such accumulation no longer exists.

Verification of Isolation: Before starting work on a machine or equipment, the authorized employee must verify that the isolation and de-energization of the machine or equipment has been effective. This includes but is not limited to:

• Mechanical: Checking the position for valves and blanking lines, utilizing pressure gauges to determine if supply is under pressure or in a vacuum state, and ensuring blocks or other devices are in place to isolate movement.

• Electrical: A qualified person (by definition included) shall use test equipment to test the circuit elements and electrical parts that are exposed to verify that parts are deenergized; determine if any energized condition exists from inadvertently induced voltage or backfeed voltage even though specific circuits are presumed to be deenergized; and if testing over 600 volts nominal, test equipment shall be checked immediately before and after the test.

RELEASE FROM LOCKOUT OR TAGOUT

The following information relates to the steps to be followed once the work or activity on equipment or machinery has been completed and the unit is to be placed in service. Release from lockout or tagout shall be performed in the following sequence:

• Inspection of the Work Area: Ensure that all non-essential items and employees have been removed or safely positioned and machine or equipment components are operationally ready.

• Initial Employee Notification: Before lockout or tagout devices are removed and before machines or equipment are energized, affected employees shall be notified that the lockout or tagout devices are being removed.

• Removal of Lockout or Tagout Devices: The employee who applied the device shall remove each lockout or tagout device from each energy-isolating device. If the authorized employee who applied the lockout device is not available to remove it, the device may be removed by the supervisor as long as:
  o The authorized employee who applied the device is not in the building;
  o A reasonable effort is made to contact the employee to advise him/her of the device removal;
  o The employee has been advised before he/she resumes work;
  o The supervisor applies his/her own lock before removing the employee’s lock;
  o The employee’s lock is removed using the supervisory key; and
The employee’s lock is placed in the supervisory lock box and given to the employee at the first opportunity.

- Final Employee Notification: After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.
- Start up: Follow the machine or equipment’s specific startup procedures.

In situations where lockout or tagout devices need to be temporarily removed from energy-isolating for testing or positioning, the procedure below shall be followed:

- Inspection of the Work Area: Ensure that all non-essential items and employees have been removed or safely positioned and machine or equipment components are operationally ready.
- Initial Employee Notification: Before lockout or tagout devices are removed and before machines or equipment are energized, affected employees shall be notified that the lockout or tagout devices are being removed.
- Removal of Lockout or Tagout Devices: The employee who applied the device shall remove each lockout or tagout device from each energy-isolating device. If the authorized employee who applied the lockout device is not available to remove it, the device may be removed by the supervisor as long as:
  - The authorized employee who applied the device is not in the building;
  - A reasonable effort is made to contact the employee to advise him/her of the device removal;
  - The employee has been advised before he/she resumes work;
  - The supervisor applies his/her own lock before removing the employee’s lock;
  - The employee’s lock is removed using the supervisory key; and
  - The employee’s lock is placed in the supervisory lock box and given to the employee at the first opportunity.
- Final Employee Notification: After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.
- Energize and proceed with testing or positioning.
- De-energize all systems and proceed with energy control procedures for the application of lockout/tagout.

**GROUP LOCKOUT OR TAGOUT**

When maintenance and/or service work is performed by more than one employee or in conjunction with another department, group, or contractor, a procedure shall be utilized which affords each employee a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. The following requirements apply for group lockout or tagout:

- When machine or equipment maintenance or servicing involves more than one employee and/or more than one crew (including contractors) or department, one authorized employee must be designated to take primary responsibility to coordinate the affected work and ensure continuity of protection for all.
- The designated employee is responsible for coordinating activities for the entire group to ensure that the Application of Lockout or Tagout procedure and the Release from Lockout or Tagout procedure is followed by each participating authorized employee.
- The designated employee has primary responsibility for providing the group lockout and/or tagout device(s) and all employee notifications.
SHIFT OR PERSONNEL CHANGES

A single authorized employee or the designated authorized employee responsible for group lockout or tagout shall communicate with the oncoming shift personnel to ensure that the continuity of protection is maintained during machine or equipment maintenance or servicing. This procedure is as follows:

- The authorized employee(s) assuming responsibilities on a servicing or maintenance activity currently locked out shall place their lock(s) on all current or existing lockout devices(s).
- The authorized employee(s) leaving the servicing or maintenance activity shall remove their lock(s) from current or existing lockout device(s).
- The oncoming authorized employee(s) assuming responsibilities shall verify that all energy sources have been identified and controlled.

SPECIAL PROCEDURES FOR MULTIPLE ENERGY SOURCES

Where machinery or equipment with multiple energy sources exist, a procedure shall be developed to lockout or tagout these specific machines or equipment. A Zero Energy State Procedure (ZESP) is a procedure established for machinery or equipment with two or more energy sources. The ZESP is intended to guide authorized employees through multiple lockout/tagout methods required to achieve a zero energy state. Each ZESP shall include instructions on the existing energy sources and their location, method(s) to isolate the energy, and the steps required to verify that a zero energy state has been achieved.

ZESP Development

Departments possessing machinery or equipment utilizing two or more energy sources shall develop a ZESP for each of these specific machines and equipment.

The Facilities Services Director or his/her designee shall develop the ZESP where the machine or equipment exists. (See APPENDIX F: Zero Energy State Procedure.) The ZESP will be made available to all authorized employees by attaching the ZESP to its appropriate multiple energy source machine or equipment. Any machinery or equipment that utilizes two or more energy sources will have a ZESP on file. The ZESP file shall be available for review at all times.

ZESP Procedure for Authorized Employees

In situations where multiple energy source machinery or equipment requires maintenance or servicing, the authorized employee shall follow the procedures listed below:

- Identification of the ZESP: Before lockout or tagout procedures begin, locate the ZESP on the machine or equipment. If no ZESP is found, the department supervisor shall be notified immediately.
- Use the ZESP to apply energy controls: Before the energy on machinery or equipment is isolated, review the information on the ZESP so that you are familiar with the type and location of the energy sources, the method to control each energy source, and how to verify that each energy source is isolated. Then, follow the procedure for Application of Lockout or Tagout.
- Verify that no other energy sources exist: Inspect the machine or equipment to ensure that there are no additional energy sources to be controlled.
- Perform required servicing or maintenance work.
- Release the energy controls: When the servicing or maintenance work is complete, follow the procedure for Release from Lockout or Tagout.
OUTSIDE CONTRACTORS

Outside contractors will be informed of Durham Tech hazardous energy control requirements and will be expected to follow the same basic program. Durham Tech’s designee will coordinate this activity with the contractor. Any contractor who performs work on machinery or equipment at a Durham Tech facility, which has the potential of containing or storing hazardous energy, will be required to document that their (contractor’s) employees have been trained in standard lockout/tagout procedures. In addition, the contractor is required to provide each of their authorized employees with approved lockout/tagout devices. (See APPENDIX G: Contractor Obligations for Lockout/Tagout.)

PERIODIC INSPECTION

Periodic inspections will be conducted, at least annually, to ensure compliance with this program. The Facilities Services Director or his/her designee will perform these inspections. The inspections will be conducted to ensure that Durham Tech’s Hazardous Energy Control procedure and the requirements of 29 CFR 1910.147 are being followed for compliance. If any deviations or inadequacies are identified, retraining shall occur for all authorized employees.

These inspections will be conducted to assess the authorized employee’s knowledge of their responsibilities and the procedures under the energy control procedure being inspected. The inspector shall certify that the periodic inspections were completed using the Lockout Tagout Periodic Inspection form. The certification will be filed in the Facility Services Director’s office along with comments regarding where problems may exist and/or where additional training may be necessary. (See APPENDIX H-1: Periodic Inspection Instructions and APPENDIX H-2: Lockout/Tagout Periodic Inspection Report.)
CHEMICAL HYGIENE PLAN

PURPOSE

Persons who work in Durham Tech chemical and biological laboratories shall be safety minded. It is Durham Tech’s policy that safety awareness become part of each employee's daily work habits, in order to achieve the highest level of safety.

Each individual shall accept responsibility for conducting his/her individual work practices in accordance with the Chemical Hygiene Plan as well as any other good safety practices. All personnel shall familiarize themselves with the safety and emergency equipment available, its location, and appropriate use. Personnel shall also practice good housekeeping, wear personal protective equipment (PPE) such as safety goggles, aprons, gloves, etc., and refrain from smoking, eating, drinking, or applying cosmetics where chemicals are present.

Advance planning is one of the best ways to avoid serious incidents. Before beginning any procedures or experiments, laboratory workers shall consider the worst case scenario and be prepared to handle any potentially hazardous situation. Familiarity with specific chemicals or procedures can result in underestimating or overlooking the hazards involved. Casual attitudes can lead to a false sense of security, which may result in carelessness. Each and every laboratory worker has a basic responsibility to himself/herself and his/her colleagues to plan and execute laboratory operations in a safe manner.

RESPONSIBILITIES

The Safety Compliance Officer shall
- Work with administrators and employees to implement the Chemical Hygiene Plan; monitor chemical purchase, use, and disposal; and maintain appropriate audits;
- Help personnel develop precautions and adequate facilities;
- Know current legal requirements concerning regulated substances; and
- Continue improving the Chemical Hygiene Plan.

ACCESS TO WRITTEN PROGRAM

The Safety Compliance Officer will maintain a current copy of the written Chemical Hygiene Plan and make it available for review by all employees.

DEFINITIONS

Acute: Immediate response to exposure.

Acute Toxicity: Employer shall make provisions for “additional protection” where appropriate if any of the following conditions arise:
- Median LD50 of 50 mg/kg orally in albino rats, 200-300 grams;
- Median LD50 of 200 mg/kg by continuous contact with the bare skin of albino rabbits 2-3 kgs; or
- Median LD50 in air of 200 PPM (2 mg/L) continuous inhalation for one hour.

Carcinogen: A cancer-causing agent.

Chronic: Delayed response to exposure.
**Combustible**: Materials that "flash" above 100°F but less than 200°F.

**Flammable**: Materials that release sufficient vapor to burn or flash below 100°F.

**Flashpoint**: The minimum temperature at which a liquid gives off a vapor in sufficient amounts to ignite.

**Hazardous Chemical**: A chemical for which there is statistically significant evidence in at least one study that acute or chronic health effects may occur in employees exposed to that chemical.

**IDLH (Immediately Dangerous to Life and Health)**: Atmospheric concentration of any toxic, corrosive, or asphyxiant substance that poses an immediate threat to life or would interfere with an individual's ability to escape from a dangerous atmosphere.

**Laboratory Type Hood**: A device enclosed on five sides with a movable sash of fixed glass partially enclosed on the remaining side. It is designed to draw air from the lab and prevent contaminants from entering the lab.

**PEL (Permissible Exposure Limit)**: The eight-hour time weighted average measured in parts per million and established by OSHA. Workers may not exceed the PEL for any specific chemical.

**Physical Hazard**: A chemical for which there is scientific evidence that it is a combustible liquid, compressed gas, explosive, flammable, organic peroxide or oxidizer, pyrophoric, reactive, or water reactive.

**Reproductive Toxin**: Chemicals that affect the reproductive capabilities, including chromosomal change (mutation) and effects on fetuses (teratogenesis).

**TLV (Threshold Limit Value)**: The time-weighted average concentration of a substance for a normal 8-hour workday and a 40-hour work week to which nearly all workers may be exposed day after day without adverse effect.

**Water-reactive**: A chemical which releases a flammable or hazardous gas when it reacts with water.

**TRAINING**

Training will be provided, by supervisors, upon initial employment and at least annually thereafter. Supervisors are required to document all training and supply the Safety Compliance Officer with the training records.

**RECORDS MAINTENANCE**

The Safety Compliance Officer will maintain all training records for this program.

**SELECTION OF CHEMICALS**

Laboratory experiments and/or procedures shall be reviewed periodically to determine if alternate experiments or procedures could accomplish the same principle using less toxic or less physically hazardous chemicals. Special attention shall be given to eliminate the use of highly acute toxins, carcinogens, and reproductive toxins. The quantity of chemicals stored shall be minimized by ordering only what is needed for a
specific period of time. It is important that employees ordering chemicals confirm that a disposal route is available for the material before ordering.

**LABELING AND TRANSPORTING CHEMICALS**

Chemicals obtained from outside suppliers shall be properly labeled, and care shall be taken not to deface the label and render it illegible. The product name or the chemical name on the label shall correspond with the name on the Safety Data Sheet (SDS). Labels shall also convey the hazards associated with that chemical (such as toxicity, flammability, or reactivity). If a chemical is transferred into a new container, then that container of mixtures and/or newly created compounds shall also be labeled in accordance with the OSHA Hazard Communication standard (29 CFR 1910.1200). Foodstuffs intended for use in the laboratory will be identified with a label like: NOT FOR CONSUMPTION. FOR LABORATORY USE ONLY. Transporting chemicals shall be accomplished in such a manner that the risk of exposure or spill is minimized. If transportation involves moving chemicals through the campus corridors or other public areas, the move shall employ a solvent bottle carrier or other means of secondary containment. The number of chemicals moved and the quantities shall be kept to a minimum.

**STORAGE OF CHEMICALS**

Primary concerns with storage of chemicals at Durham Tech are contact between incompatible chemicals and the elimination of dangerous storage conditions (i.e. heat, electrical shorts, light, etc.). The following protocols shall be followed:

- Flammable/combustible chemicals (those with flashpoints below 200° F) shall be stored in specifically designed flammable storage cabinets or refrigerators. Flammable materials shall never be stored in refrigerators not designed or modified for flammable material storage.
- Chemical storage shelves shall have a raised lip of at least 1/4" in height at the front edge of the shelf. Other means of preventing containers from moving or falling over the edge may be used only with the permission of the Safety Officer.
- Photosensitive chemicals shall be stored away from light.
- Incompatibles, such as acids and sodium cyanide, acids and bases, or ethyl ether and oxidizers, shall be segregated. Acids and bases shall not be stored in the same cabinet or adjacent on the same shelf; oxidizers and flammables shall not be stored together in the same cabinet or adjacent on the same shelf. Chemicals will be organized in accordance with the Fisher Scientific color-code system or an equal system.
- Stored chemicals shall be periodically inspected at least annually.

**PERSONAL HYGIENE**

The employee shall be responsible for implementing the following personal hygiene practices whenever working in the laboratory:

- Avoid skin contact as a cardinal rule whenever handling chemicals.
- PPE shall be worn at any time an employee is manipulating chemicals and using glassware.
- Personnel shall consult Safety Data Sheets (SDS) to determine specific PPE requirements.
- Loose clothing shall be confined when working in the laboratory.
- Long hair shall be tied back and/or confined when working in the laboratory.
- Mouth suction, when pipetting liquid chemicals or starting a siphon, shall not be used. A pipette safety bulb or aspirator shall be used.
- Breathing gases, vapors, or mists that may be toxic shall be avoided. Fume hood(s) or a confinement apparatus shall be used when appropriate.
• Unsafe conditions or actions shall be called to the attention of the Safety Compliance Officer so that immediate or timely corrections can be made.
• Equipment shall be used only for its intended purpose.
• Distracting or startling others in the laboratory shall be avoided.
• Horseplay or practical jokes in the laboratory or storage areas will not be tolerated.
• Exposed skin areas shall be thoroughly washed before leaving the laboratory.
• Employees shall not smoke or apply cosmetics in areas where chemicals are used or stored.

**FOOD HANDLING**

Food and beverage intended for consumption are prohibited in areas where chemicals are used or stored. Areas where food or drinks intended for consumption are permitted shall be clearly marked with signage. Hazardous chemicals SHALL NOT be allowed within that area. Glassware used for laboratory operations shall not be used for food or beverage consumption. Containers that have been used for food or beverage shall not be used to store laboratory chemicals. Laboratory refrigerators and ice chests shall not be used to store food even if the food containers are sealed. Refrigerators and microwaves intended for chemical use should be labeled with the following verbiage or equivalent: NOT FOR FOOD OR DRINK.

**GLASSWARE**

Careful storage and handling procedures shall be used to avoid damaging glassware. Damaged glassware shall be discarded. Hand protection shall be worn when inserting glass tubing into rubber or cork stoppers or when placing rubber/plastic tubing on glass tubing or connections. All glass tubing shall be fire polished or rounded and lubricated when making connections. A vacuum-jacketed glass apparatus, such as a Dewar flask, shall be wrapped with plastic webbing or tape and handled with extreme caution to prevent implosions. Tongs, broom and dustpan, or cotton swabs shall be used to pick up broken glass. Employees SHALL NEVER pick up broken glass using their hands.

**LABORATORY EQUIPMENT**

Equipment shall be inspected and maintained on a regular basis following the manufacturers' recommendations. Prior to repair, faulty equipment shall be secured (locked, tagged, and/or removed from the laboratory) so that accidental use is not possible. Equipment with exposed moving parts shall be equipped with guards or safety shields. Safety shields shall be used during experiments or operations where danger of explosion or release of high pressure exists. If electrical devices are used in proximity to high moisture conditions, a Ground Fault Interrupter Device (GFID) shall be installed. A pressurized apparatus, such as high-pressure cylinders shall be equipped with an appropriate relief device and be secured (chained) in an upright position to a stationary object at all times.

**FLAMMABLE SUBSTANCES**

An open flame shall never be used to heat a flammable liquid or distill materials under reduced pressure. Prior to lighting any flame, flammable substances shall be removed from the area or shall be sealed in containers away from the heat. Open flame shall be used only when necessary and extinguished as soon as no longer needed. When volatile flammable chemicals are present, only intrinsically safe or non-sparking electrical equipment shall be used. All combustible substances (flashpoint below 200°F) which are stable at room temperature shall be stored in an approved flammables cabinet.
**WASTE DISPOSAL**

Chemical wastes should be collected in suitable containers that are clearly labeled. Incompatible wastes shall not be mixed. Waste containers should be kept closed unless waste is being added or removed. Measures shall be taken to avoid the accidental ignition of flammable and combustible wastes. Waste disposal should be scheduled periodically with a licensed chemical waste vendor; chemical wastes should not be stored indefinitely.

**KEY ELEMENTS OF EXPERIMENT**

Key elements for carrying out any experiment shall include but not be limited to the following:

- **PPE** - All participating persons shall put on and wear appropriate Personal Protective Equipment (PPE). This may include but not be limited to safety goggles, face shields, latex or nitrile gloves, and aprons or lab coats.
- **Safety Equipment** - Safety equipment shall be inspected to determine its location and condition. This includes fire extinguisher, fume hood, eyewash and shower, first aid kit, etc.
- **Equipment** - The appropriate equipment shall be assembled. This may include but not be limited to glassware specifically designed for use in a chemical laboratory.
- **Visual Inspection** - Each chemical container shall be visually inspected to determine the condition of the chemical (i.e., out of date, damaged container, etc.).
- **The Label** - The label on the chemical container shall be reviewed to determine if any health hazards or physical hazards can be attributed to the chemical. If the label is illegible, the contents shall be confirmed and a new label attached prior to use.
- **Material Safety Data Sheet (MSDS and SDS)** - The (M)SDS shall be reviewed to confirm any health or physical hazard and to determine emergency or spill control measures.
- **Spill Control** - Recommended absorbents and clean-up materials shall be assembled and placed in an accessible location.
- **Incompatibles** - Any incompatible chemicals present shall be removed from the experiment area prior to beginning the procedure.
- **Staff Experience** - The experiment shall be conducted by persons approved to conduct the experiment.
- **Decontamination** - At the conclusion of the experiment, chemicals shall be returned to their appropriate storage locations, all laboratory equipment shall be thoroughly washed, and the area decontaminated.
- **Personal Hygiene** - Disposable PPE shall be disposed of and all persons shall follow personal decontamination procedures (such as washing of exposed skin areas).

**CONTROL MEASURES AND PROTECTIVE EQUIPMENT REQUIREMENTS**

**Determining Control Measures**

The decision to implement control measures such as fume hoods or protective clothing shall be determined for the specific operation or experiment. Control measures shall be determined for groups 1 of chemicals such as acids, oxidizers, or acute toxins which are highly reactive or can result in acute or chronic exposure. Chemicals with a PEL of 50 ppm or less shall be manipulated only with the use of a fume hood so that fumes are not released into the general laboratory. Corrosive chemicals, toxic chemicals, or any chemical that may cause damage to or be absorbed through the skin will require the use of gloves and safety goggles. In potential splash situations, an apron or lab coat and face-shield shall be used.
Control Measures at the Source (Controls at the Chemical)
A less hazardous chemical that will accomplish the same purpose shall be substituted. The operation or experiment shall be enclosed to prevent release into the general work area. Changes in the process shall be implemented where possible to prevent the creation of unnecessary hazards. Stored chemicals shall be kept at a minimum.

In the Path
(Controls in the Environmental Pathway Between the Chemical and the Employee)
Laboratory hoods are the primary control in the environmental pathway. Where required by the OSHA PEL, the fume hood shall be used. General ventilation may be adequate for most operations involving chemicals with little or no toxicity or which are amply confined. General ventilation shall exchange the air within each laboratory room a minimum of four times per hour.

By the Employee (Controls the Employee Shall Take Involving Actions)
Durham Tech employees shall avoid working alone in the college’s chemical and biological laboratories. Employees shall always wear appropriate PPE such as safety goggles, gloves, and aprons. Employees shall receive appropriate instruction and/or training prior to conducting a specific procedure.

Exception: Chemicals listed by the EPA as "extremely hazardous substances" under SARA Title III Section 302 and 304 shall be considered individually. See "EHS" column on the quarterly inventory.

Protective Equipment
All Durham Tech laboratories shall be equipped with an emergency shower, eye wash station, fire blanket, fire extinguisher, and first aid kit. Signs indicating the location of each shall be posted and clearly visible and legible from all areas of the laboratory. In addition, all exits will be labeled “EXIT.” Laboratory diagrams shall be posted in each laboratory indicating evacuation routes and the current location of the safety equipment.

All laboratory safety equipment will be inspected on a regular basis in accordance with appropriate OSHA regulations. Eyewash equipment and emergency showers shall be inspected and tested in accordance with the American National Standards institute (ANSI) Standard, ANSI Z358.1-1998, National Standard for Emergency Eyewash and Shower Equipment.

Personal Protective Equipment
Durham Tech shall provide, at no cost to the employee, appropriate PPE for the chemical to be used as called for in the protocol in which the chemical is used. PPE may include but not be limited to the following:

- Goggles;
- Disposable gloves;
- Respirators;
- Lab coats; and
- Aprons.

It is the responsibility of each employee to be aware of the appropriate PPE required, to know the location of the PPE, and to wear the appropriate PPE for the assigned task.

Employee Exposure Monitoring
If there is reason to believe that the PEL or other published recommended exposure limits are being exceeded, then Durham Tech will provide monitoring for that exposure. A qualified person using the appropriate monitoring equipment shall perform the monitoring. Should the results of the monitoring indicate that any specific PEL is being exceeded, Durham Tech will take measures to eliminate the exposure potential.
**EVALUATION OF VENTILATION AND FUME HOODS**

Evaluation shall be completed to measure the quality and quantity of ventilation in the laboratory. Airflow shall be consistent, with no areas in the lab exhibiting static or high-velocity airflow. Adequate ventilation systems change the room air at least four times per hour. A higher air exchange rate may be needed depending upon chemicals being used. Airflow paths can be monitored with use of smoke tubes; however, these do not determine velocities. Pitot tubes are used for measuring duct velocities, and anemometers or velometers are used to measure airflow rates within rooms and at the faces of fume hoods.

Any experiment that uses a chemical with a PEL of 50 parts per million (ppm) or less requires the use of a fume hood or an experiment seal. The fume hoods shall be inspected and labeled at least annually or when any changes have occurred that may alter fume hood operation.

An accepted method of fume hood evaluation is the anemometer or velometer which measures the velocity of air across the face of the hood. Measurements shall be taken at multiple points along the hood and averaged. Minimum face velocity is 80 linear feet per minute (lfm). A program of annual measurements and a performance of 100 lfm shall be considered acceptable for toxins and carcinogens.

Fume hoods equipped with fixed air velocity monitoring devices will be properly inspected, monitored, and calibrated for proper operation in accordance with the manufacturer's recommendations. Any fume hood or monitoring device found to be operating improperly will be labeled as follows:

- Fail
- Out of service

**MEDICAL EXAMINATION AND CONSULTATION**

Durham Tech shall provide all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, under the following circumstances:

- **Personal Symptoms**: Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee shall be provided an opportunity to receive an appropriate medical examination.
- **Monitoring Levels**: Where exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the PEL) for an OSHA-regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for the affected employee as prescribed by the particular standard.
- **Emergency Exposure**: Whenever an event takes place in the work area such as a spill, leak, explosion, or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.
- **All medical examinations and consultations** shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place.

**Information Provided to the Physician**

Durham Tech shall provide the following information to the physician:

- The identity of the hazardous chemical(s) to which the employee may have been exposed;
- A description of the conditions under which the exposure occurred, including quantitative exposure data, if available;
• A description of the signs and symptoms of exposure that the employee is experiencing

**Physician's Written Opinion**

The physician’s written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure. For examination or consultation required under 29 CFR 1910.1450 and this standard practice instruction, this employer shall obtain a written opinion from the examining physician which shall include the following:

Recommendations for further medical follow-up;

- The results of the medical examination and any associated tests;
- Any medical condition which may be revealed in the course of the examination, which may place the employee at increased risk as a result of exposure to a hazardous chemical found in the workplace; and
- A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.

The medical report will be filed in a confidential medical file kept by the Safety Officer, separate from the employee's other personnel records. This report will be maintained by the community college for a period 30 years. At any time during this period, the employee may review his/her file. If the employee is not able to review the file in person, he/she may send his/her designated representative to review the file.

**PROCEDURES FOR WORKING WITH CARCINOGENS, REPRODUCTIVE TOXINS, AND HIGHLY ACUTE TOXINS**

Additional protection for work with particularly hazardous substances such as toxins and carcinogens shall be given specific consideration where appropriate as follows:

**Work Procedures**

- Establishment of a Designated Area
  Designated areas shall be established in each laboratory for the use and manipulation of hazardous chemicals. The designated area shall be posted, and all employees working there shall be informed of the hazards.

- Use of Containment Devices such as fume hoods and glove boxes, shall be used as follows:
  - When working with a hazardous substance;
  - If the potential exists for use of the chemical to generate aerosols; or
  - If the process has the potential to result in an uncontrollable release of the substance.

- Procedures for Safe Removal of Hazardous Waste
  - Hazardous waste shall be disposed of in accordance with all federal, state, and local regulations.

- Decontamination procedures shall include but not be limited to the following:
  - Cleaning as appropriate of the work area before and after chemical use or manipulation;
  - Removing outer protective gear (gloves, apron, etc.) and placing in labeled container for proper cleaning or disposal;
  - Washing hands and face, removing inner protective clothing, and placing in labeled container for proper cleaning or disposal;
  - Placing contaminated equipment into labeled containers for proper cleaning;
  - Checking for skin contamination; and
  - Employees may add additional steps to procedures as needed for health and safety.
Identifying Carcinogens
Various regulatory agencies and programs have identified specific chemicals as carcinogenic or potentially carcinogenic. These agencies include the following:

- Occupational Safety and Health Administration (OSHA) - Carcinogenic chemicals that OSHA has specifically designated as carcinogens or cancer suspect agents and for which standards have been written (e.g. 29 CFR 1910.1003 – “13 Carcinogens” or 29 CFR 1910.1017 – “Vinyl Chloride”);
- National Toxicology Program (NTP) - Chemicals listed in the "Annual Report on Carcinogens" published by NTP as "Known to be Carcinogens" or "Reasonably Anticipated to be Carcinogens"; and
- International Agency for Research on Cancer Monographs (IARC) - All chemicals listed in the publication "International Agency for Research on Cancer Monographs" (IARC) under the lists titled: Group 1 – “Carcinogenic to Humans”; Group 2A – “Probably Carcinogenic to Humans”; and Group 2B – “Possibly Carcinogenic to Humans.”
EXPOSURE CONTROL PLAN

PURPOSE

The purpose of the Exposure Control Plan is to significantly reduce the risk of infection for employees with the potential to be exposed to blood or body fluids. The targeted diseases include Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV). This plan and noted procedures are in compliance with the Standards of the U.S. Department of Labor in 29 CFR 1910.1030 Occupational Safety and Health Administration (OSHA), pertaining to employees who may be subject to occupational exposure to bloodborne pathogens.

This plan identifies the job classifications that have been determined to have potential exposure to blood and other potentially-infectious materials at the college. This plan also describes the methods of compliance with applicable requirements of the Standard and a procedure for evaluating exposure incidents. All full- and part-time employees of the college whose job classifications make them at risk for exposure to bloodborne pathogens are required to comply with this plan and with requirements of the Standard. Any failure to comply may be cause for disciplinary action.

College employees involved in the instruction of students at off-campus clinical sites will comply with the plan established by that facility as well as with the college’s Exposure Control Plan.

Departments/programs utilizing on-campus sites for instruction in which there is a high risk of exposure to bloodborne pathogens will establish, in conjunction with the Safety Compliance Officer, specific exposure control policies and procedures as applicable to the situation.

RESPONSIBILITIES

The Safety Compliance Officer is responsible for implementing the Exposure Control Plan and ensuring compliance with it and the Standard. (See Appendix I: Departments Implementing Exposure Control Plan) Campus Police and Public Safety have an additional Appendix (O) due to the nature of their job and potential exposure outside the academic environment.

ACCESS TO THE WRITTEN PLAN

The Safety Compliance Officer will maintain a copy of the Exposure Control Plan and make it available for all employees to review.

DEFINITIONS

Bloodborne Pathogens: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include but are not limited to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

Contaminated: The presence, or reasonably-anticipated presence, of blood or other potentially-infectious materials on an item or surface.

Contaminated Sharps: Any contaminated object(s) that can penetrate the skin.

Engineering Controls: Controls (e.g., sharps disposal containers) that isolate or remove the bloodborne pathogen hazard from the workplace.
Needleless Systems: A device that does not use needles for the following:
- The collection of body fluids or withdrawal of body fluids after initial venous or arterial access is established;
- The administration of medication or fluids; or
- Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to subcutaneous injuries from contaminated sharps.

Occupational Exposure: Any reasonably-anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially-infectious materials that may result from the performance of an employee’s duties.

Sharps with Engineered Sharps Injury Protections: A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Other Potentially Infectious Materials: Includes such materials as the following:
- Fluids such as semen, vaginal secretions, cerebrospinal fluid (CSF), synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
- An unfixed organ or tissue (other than intact skin) from a human; or
- HIV-containing cells or tissue cultures, organ cultures, and HIV- or HIV-containing culture medium or other solutions, blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Personal Protective Equipment (PPE): Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts, blouses) are not considered to be personal protective equipment.

Regulated Waste: Contaminated items that would release blood or other potentially-infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially-infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially-infectious materials.

Universal Precautions: An approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, or other bloodborne pathogens.

Work Practice Controls: Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

TRAINING REQUIREMENTS
- Training will be provided for employees who are at risk for occupational exposure to blood or other potentially-infectious materials and hazardous chemicals.
- Training documents and materials will be provided by the Safety Compliance Officer.
- All affected employees are required new hire training and to participate at least annually in training sessions offered during normal work hours at no cost to the employee.
- Training sessions for employees will be scheduled as follows:
At the time of initial assignment to tasks involving occupational exposure; and
Whenever tasks or procedures change which affect an employee’s occupational exposure; and
When required due to unusual circumstances.

- For employees who have received training on bloodborne pathogens in the year preceding the effective date of the Standard, only training with respect to the provisions of the Standard which were not included need be provided.
- Annual training for all employees shall be provided at least within one year of their previous training.
- The college shall provide additional training when changes such as modifying tasks or procedures or instituting new tasks or procedures affect the employee’s occupational exposure. The additional training may be limited to addressing the exposure(s) created.
- Materials appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used for this training.

**CONTENT OF TRAINING SESSIONS**

The training program shall contain, at a minimum, the following elements:

- An accessible copy of the regulatory text of this Standard and an explanation of its contents;
- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of the Durham Tech’s Exposure Control Plan and the means by which the employee can obtain a copy of the written plan;
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially-infectious materials;
- An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment;
- Information about the types, proper use, location, removal, handling, decontamination, and disposal of protective equipment;
- An explanation of the basis for selecting personal protective equipment and how to gain access to it;
- Information about the Hepatitis B vaccine, including information on its efficacy, safety, methods of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
- Information about the appropriate actions to take and persons to contact in an emergency involving blood or other potentially-infectious materials;
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
- Information about the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- An explanation of the signs, labels, and/or color-coding required by the Standard; and
- An opportunity for employees to participate in interactive questions and answers with the person conducting the training session.

**RECORDS MAINTENANCE**

The college will maintain in the Safety Compliance office a record for each employee who is determined to be at risk for occupational exposure to bloodborne pathogens. (See APPENDIX J: Exposure Classification.) Each employee’s record should contain the following:

- Employee’s name;
• A copy of the employee’s Hepatitis B vaccination status, including the dates of all Hepatitis B vaccinations or a signed declination form; and
• If an exposure occurs, the Safety Compliance Officer will maintain copies of the incident report, the post-exposure follow-up procedures performed, documentation of the route(s) of exposure, the results of the source individual’s blood testing, if available, and a copy of the health care professional’s written opinion.

An employee’s records will be kept confidential and not disclosed or reported without the individual employee’s written consent, except as required by federal, state, or local laws. The Safety Officer will maintain an employee’s records for not less than 30 years after the employee’s departure.

TRAINING RECORDS

Employee training records will include the following information related to specific education about bloodborne pathogens:
• The dates of the training sessions;
• The contents or a summary of the training session;
• The name(s) and qualifications of the person(s) conducting the employee training; and
• The names and titles of all persons attending the training sessions.

The training records must be kept for three years as follows:
• The Safety Compliance Officer will maintain the training records;
• The college will ensure that all records required to be maintained by the OSHA Standard shall be made available upon request to federal and state officials for examination and copying;
• Employee training records required by the OSHA Standard will be provided upon request for examination and copying to employees, to employee representatives, and to federal, state, and local officials in accordance with 29 CFR 1910.20;
• The college shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.20 (h); and
• If the community college ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the college shall notify the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, at least three months prior to their disposal. The college shall also transmit these records to the Director, if the Director requires the college to do so, within that three-month period.

EXPOSURE DETERMINATION

The Safety Compliance Officer is responsible for classifying tasks performed in their areas of responsibility that have a potential of exposure to blood or other infectious body fluids. Whenever possible, additional procedures are established to eliminate or reduce task-associated risks. The Safety Officer shall ensure that all position descriptions, including administrative and support personnel, whether paid or volunteer, have been evaluated by the appropriate department managers and that a Risk of Exposure has been identified. For jobs with a potential exposure, a list of tasks or procedures which present a potential occupational exposure to those employees will be prepared. Assignment of personnel to a new department in the same basic job may necessitate a formal change of job title to ensure that they will receive training according to that job’s risk classification. This must be reviewed by department managers on an annual basis.
All department managers and supervisors are responsible for monitoring employees’ job performance and for updating job descriptions/class activities if new tasks are being performed by individuals in a job/class which presents a change in exposure status while on any of the college’s campuses or clinical instruction sites. Managers and supervisory personnel are also responsible for monitoring employees’ training status and their compliance with Universal Precautions and other risk-reducing policies, being particularly attentive to recognize, act on, and prevent unsafe actions by anyone in their presence. The Human Resources Director shall ensure, that whenever a new position description is prepared, it is reviewed for exposure risks prior to being approved.

All employees share responsibility with and for their co-workers to ensure compliance with the letter, spirit, and intent of Durham Tech’s procedures for preventing the transmission of disease among college employees, students, and visitors. Therefore, each employee must know how to recognize occupational exposure and must communicate changes in the exposure classification to their supervisor if asked to perform tasks or procedures which involve an increased risk of exposure.

METHODS OF COMPLIANCE

The college will practice and enforce Universal Precautions to prevent contact with blood or other potentially-infectious materials (i.e., semen, vaginal secretions, cerebrospinal fluid [CSF], synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood and in situations where it is difficult or impossible to differentiate between body fluids) as follows:

- Blood and body fluid precautions will be used consistently in settings where the risk of blood exposure is present.
- All identified employees will use barrier precautions to prevent exposure to the skin and mucous membranes (eyes, nose, mouth) when contact with blood or other potentially-infectious materials is anticipated.
- Disposable gloves (single use) will always be replaced as soon as practical when visibly contaminated, torn, punctured, or when their ability to function as a barrier is compromised. Disposable gloves will not be washed or decontaminated for reuse.
- Masks and protective eyewear combination (goggles or glasses with solid side shields) or face-shields which protect all mucous membranes will be worn when performing procedures that are likely to generate splashes, spray, spatter, or droplets of blood or other potentially-infectious materials.
- Gowns, aprons, or other protective body clothing will be worn when performing procedures likely to generate splashes or splatters of blood or body fluids and in all occupational exposure situations.
- The Hepatitis B vaccine will be offered and provided free of charge to all employees in the jobs determined to have a potential exposure to blood or other infectious body fluids. The employee will be reimbursed for any expense for the required shots.
- Surgical caps or hoods and/or shoe covers will be worn in instances when gross contamination can reasonably be anticipated.
- Hands or other skin surfaces will be washed immediately using a five-minute scrub if contaminated with blood or other body fluids. Hands will also be washed after removing protective gloves.
- Safety precautions will be followed to prevent injuries caused by needles, scalpel blades, and other sharp instruments.
- All sharps (e.g., needles, scalpels,) will be placed in properly labeled containers with the international biological hazard symbol and the wording "Biohazard."
• Identified employees with exudative lesions or weeping dermatitis will refrain from all direct patient
contact during student activities and from handling patient-care equipment until the condition
resolves.

WORK PRACTICES

The following work practices are expected to be followed:

• Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in
work areas where there is a reasonable likelihood of occupational exposure.

• Food or beverages will be consumed only in a safe designated area. Food and drinks will not be kept on
the countertops or bench tops where blood or other potentially-infectious materials are present.

• Employees will wash hands immediately, or as soon as feasible, after removing of gloves or other
personal protective equipment. Antiseptic hand cleansers or towelettes, in conjunction with paper
towels, will be used if hand-washing facilities are not available.

• Employees will wash their hands or any other skin for at least five minutes or will flush the mucous
membranes with water immediately (if contamination is in the eyes, flush for 10-15 minutes) or as
soon as possible following contact with blood or other potentially-infectious materials.

• Smoking is not permitted on campus.

• The mucous membranes (eyes, nose, mouth) will be protected when there is a likelihood of splatter or
splashes from blood or body fluids. All procedures involving blood or other potentially-infectious
materials will be performed in a manner which minimizes splashing, spraying, splattering, and the
generation of droplets of these substances.

• Mouth pipetting or suctioning of blood or other potentially-infectious materials is prohibited.

• Contaminated needles or other contaminated sharps will not be bent, recapped, sheared, broken, or
removed. A mechanical device or a one-handed technique may be used to recap or remove needles.
Immediately, or as soon as possible after use, contaminated sharps will be placed in containers which
are puncture resistant, leak-resistant, and properly labeled or color-coded. All glass and hard

• plastics (intact or broken), which are to be discarded, will be treated as sharps.

• Specimens of blood or other potentially-infectious materials will be placed in a designated regulated
waste container.

• Any blood or body fluid-related accident (i.e. needle stick, blood or body fluid splatter or splash to the
mucous membranes) will be reported immediately to the supervisor.

• Equipment which has been contaminated with blood or other potentially-infectious materials will be
decontaminated before being serviced or shipped unless it can be shown that decontamination of the
equipment is not feasible. Equipment, or portions thereof, which is not decontaminated require that a
warning label be affixed.

PERSONAL PROTECTIVE EQUIPMENT

All employees should have access to, become familiar with, and follow personal protective equipment policies
established by each of the college’s departments on all of the college’s campuses and those off-campus clinical
sites where they are participating in clinical experiences for students. Personal protective equipment will be
provided, at no cost to the employee, when there is potential for an occupational exposure. For example,
personal protective equipment may include the following: gloves, gowns, laboratory coats, face masks, face-
shields or safety glasses, mouthpieces, resuscitation bags, pocket masks, or other ventilation equipment.
Personal protective equipment will be used for all occupational exposure situations. However, the employee
may temporarily or briefly decline the use of equipment in the following scenario: "Under rare and
extraordinary circumstances, the employee uses his/her professional judgment that, in a specific instance, its
use would have prevented delivery of health care or public safety services or would have posed an increased hazard to the safety of the employee." Situations in which personal protective equipment was temporarily or briefly declined will be investigated and documented to determine if changes can be instituted to prevent future occurrences.

**SHARPS**

Procedures for the use and disposal of sharps are as follows:

- Only disposable needles will be used at the college and whenever applicable, safety needle devices purchased.
- Contaminated sharps will be discarded immediately or as soon as possible in containers which are closable, puncture-resistant, leak-proof on the sides and bottom, and either labeled with the international biological hazard symbol as well as the wording "biohazard" or using red containers.
- The sharps containers will be easily accessible to personnel and located as close as possible to the areas where sharps are used.
- The sharps containers will be maintained upright throughout use, replaced routinely, and not be allowed to overfill.
- During replacement or removal from the work area, the sharps containers will be closed to prevent the spillage or protrusion of contents during handling, storage, transport, or shipping. The sharps containers will be placed in a secondary container if leakage is possible.
- Reusable containers will not be opened, emptied, or cleaned manually or in any other manner which will expose employees to the risk of a subcutaneous injury.
- Immediately, or as soon as possible after use, contaminated reusable sharps must be placed in containers until properly decontaminated. These containers will be puncture resistant, leak-proof on the sides and bottom, and will either be red or affixed with a fluorescent orange or orange-red label with letters in contrasting colors and a biohazard symbol.
- All reusable sharps will be properly sterilized or decontaminated after use as recommended by the Center for Disease Prevention and Control.
- Contaminated reusable sharps will not be stored in a manner which requires employees to reach into the containers.

**SPECIMENS**

Procedures for the use and disposal of specimens are as follows:

- Specimens of blood, tissue, or other potentially-infectious materials which the college collects or transports will be placed in containers that prevent leakage during collection, handling, processing, storage, transport, or shipping.
- The container will be red or affixed with a fluorescent orange or orange-red label with letters in contrasting colors and a “biohazard” symbol. The container must be closed prior to storage, transport, or shipping. (NOTE: If Universal Precautions are utilized in the handling of all specimens, the labeling/color coding system is not necessary, provided the containers are recognizable as containing specimens.)
- If outside contamination of the primary container occurs, the primary container is to be placed within a second container to prevent leakage during handling, processing, storage, transport, or shipping and which is labeled or color-coded appropriately.
- If the specimen could puncture the primary container, the primary container will be placed within a secondary container which is puncture-resistant in addition to having the above characteristics.
- Spills of infectious material will be handled using an appropriate spill kit.
**LAUNDRY**

Procedures for handling and disposing of laundry are as follows:

- Employees handling contaminated linen will wear protective gloves and other appropriate personal and protective equipment to prevent exposure to blood or other potentially-infectious materials during the handling and sorting of soiled linen and other fabric items.
- Laundry that is contaminated with blood or other potentially-infectious materials or that may contain contaminated needles or sharps will be treated as if it were HBV/HIV infectious and handled as little as possible with a minimum amount of agitation.
- Contaminated laundry will be bagged at the location where it was used.
- Contaminated laundry will be placed and transported in bags that are labeled with the international biological hazard symbol and the wording "biohazard."
- The "biohazard" labels used will be fluorescent orange or orange-red with the lettering in contrasting colors. The labels will be affixed to the containers by string, wire, adhesive, or any method that prevents their loss or unintentional removal.
- Red bags or red containers may be substituted for labels.
- Contaminated laundry that is wet and presents a reasonable likelihood of soak-through or leakage from the bag will be transported in bags or containers which prevent the fluids from the exterior.
- All contaminated laundry shipped off-site to another facility which does not utilize Universal Precautions must be labeled or color-coded as follows:
  - Contaminated laundry will be placed and transported in bags that are labeled with the international biological hazard symbol and the wording "biohazard."
  - The "biohazard" labels used will be fluorescent orange or orange-red with the lettering in contrasting colors. The labels will be affixed to the containers by string, wire, adhesive, or any method that prevents their loss or unintentional removal.
  - Red bags or red containers may be substituted for labels.

**HOUSEKEEPING**

The college department/area will be maintained in a clean and sanitary condition. A written schedule for cleaning and a method of decontamination, based on the location, type of surface, type of soil present, and procedures being performed in each area have been developed with Housekeeping Services.

- All equipment and environmental work surfaces will be cleaned and decontaminated after contact with blood or other potentially-infectious materials.
- The process of decontamination will be conducted after completion of procedures; when surfaces are overtly contaminated; after the spill of blood or other potentially-infectious material; and at the end of the work shift, if the surface may have become contaminated since the last cleaning.
- Only approved disinfectants will be used, such as a 10% solution of sodium hypochlorite (household bleach) mixed fresh each day.
- Protective coverings such as plastic wrap, aluminum foil, or imperviously-backed absorbent will be removed at the end of the work shift or whenever they become overtly contaminated during the shift.
- Any bins, pails, cans, or other similar receptacles intended for reuse will be decontaminated on a regular basis or whenever there is visible contamination.
- Broken glassware must be handled with the aid of a mechanical device (i.e., brush and dustpan, tongs, or forceps).
REGULATED WASTE

Regulated waste include the following:

- Liquid or semi-liquid blood;
- Other potentially-infectious materials that would release blood or other potentially-infectious materials in a liquid or semi-liquid state if compressed;
- Items that are caked with dried blood or other potentially-infectious materials and are capable of releasing these materials during handling;
- Pathological and microbiological wastes containing blood or other potentially-infectious materials; and
- Any item, such as bandages, gauze, linens, or used personal and protective equipment that becomes covered with or contains liquid blood or other potentially-infectious materials.

The following guidelines will be followed to meet the federal, state, and local guidelines. However, if the North Carolina and local medical biohazard waste regulations are more stringent, then these regulations will also be incorporated into the plan.

- Specimens of blood or other potentially-infectious materials will be placed in containers which prevent leakage during the collection, handling, processing, storage, transport, or shipping.
- For disposal of regulated waste, the college shall provide containers that are as follows:
  - Closable;
  - Constructed to contain all contents and prevent leakage of fluids; and
  - Colored red or orange-red label with letters in contrasting colors and a “biohazard” symbol.
- The containers shall be closed prior to removal to prevent spillage or protruding of contents during handling, storage, transport, or shipping.
- If outside contamination of the regulated waste container occurs, it will be placed in a second container with the same characteristics as the first container.
- The college shall place the containers for regulated waste in every appropriate laboratory and classroom.
- Immediately, or as soon as feasible after use, disposable sharps shall be disposed of in closable, puncture resistant, disposable containers that are leak proof on the sides and bottom and that are labeled with a "biohazard" symbol or color-coded in red. A commercial sharps container is acceptable.
- Any regulated waste is picked up and transported by an outside contractor.

HAZARD COMMUNICATION

The college must affix fluorescent orange or orange-red labels with letters in a contrasting color to containers of regulated waste, refrigerators, and freezers containing blood or other potentially-infectious material, and other containers that will be used to store, transport, or ship blood or other potentially-infectious materials. All such labels must have the universal “Biohazard” symbol.

BLOOD SPILLS

At Durham Tech (except in special medical programs), employees and students are not to clean up another person’s blood. This task is assigned to Housekeeping Services personnel.

HEPATITIS AND HEPATITIS B VACCINE

Hepatitis Information

- Hepatitis means inflammation of the liver. Hepatitis B, which is a viral infection, is one of multiple causes of hepatitis. Many people with Hepatitis B recover completely, but approximately 10 percent
become chronic carriers; one to two percent die from fulminant hepatitis. In the group of chronic carriers, many have no symptoms and appear well yet can transmit the virus to others. Others may develop a variety of symptoms and liver problems varying from mild to severe (chronic persistent hepatitis, chronic active hepatitis, cirrhosis, and liver failure). There is also an association between the Hepatitis B virus and hepatoma (a form of liver cancer).

- Hepatitis B virus can be transmitted by contact with body fluids including blood (along with contaminated needles), semen, breast milk, and vaginal secretions. Health workers are at high risk of acquiring Hepatitis B due to frequent contact with blood or potentially contaminated body fluids and, therefore, the vaccine is recommended to prevent the illness.

**Hepatitis B Vaccine Information**

- Three doses of Hepatitis B vaccine are needed to confer protection. Clinical studies have shown that after three doses, 96 percent of healthy adults have been seroprotected. Doses are administered at zero, one, and six months.
- Employees who have occupational exposure will be provided, on a reimbursement basis, the Hepatitis B vaccine and vaccination series, as well as post-exposure evaluation and follow-up procedures, including laboratory tests at an accredited laboratory.
- Protocol for the above procedures will be performed under the supervision of a licensed physician or by another licensed health care professional and provided in accordance with the recommendations of the U.S. Public Health Service. Employees must complete a Hepatitis B Vaccine Record. (See APPENDIX K: Hepatitis B Vaccine Record form.)
- The health care professional responsible for the employee’s Hepatitis B vaccination will be provided with a copy of 29 CFR 1920.1030 Bloodborne Pathogens if they do not have one.
- The Hepatitis B vaccination will be available to employees within 10 working days of initial assignment involving potential exposure and after they have received training on the required subjects.
- The Hepatitis B vaccine and any future booster(s) OSHA recommends will be available to employees who have an occupational exposure, unless they have previously received the complete Hepatitis B vaccination series and the antibody testing has revealed the employee is immune or the vaccine is contraindicated for medical reasons.
- A Hepatitis B pre-screening program will not be a prerequisite for receiving the vaccination.
- An employee who initially declines the Hepatitis B vaccination will be allowed to receive the vaccination at a later date.
- Employees who decline to accept the Hepatitis B vaccination will be required to sign the declination statement, Attachment 2: Hepatitis B Vaccine Form.
- 10. All part-time employees who may have occupational exposure to Hepatitis B will be offered the Hepatitis B vaccine free of charge on a re-imbursement basis, as long as they are employed by the college. If the employee’s assignment ends at the college before the completion of the vaccination series, that individual will be responsible for completing the series at his/her own expense.
- Employees who have already had the vaccine at another location must send or deliver a copy of their vaccination record to the Safety Officer to be placed in the employee’s file.

**POST-EXPOSURE**

After exposure to blood or other potentially infectious or disease fluids, these procedures should be followed:

- Immediately take appropriate precautionary measures. For eye, mouth, and other mucous membrane exposures, flush/rinse the exposed area thoroughly with running water for at least 10 - 15 minutes. For needle sticks, other puncture wounds, or contamination of any body part with blood, scrub for a minimum of five minutes.
• Report the incident IMMEDIATELY to the appropriate persons (e.g., supervisor, program director, or department head).
• If the source individual is known and present, inform the individual of the incident and the need for him/her to be tested. Testing of the source individual must be completed at no cost to the individual. If the source individual is known but unavailable, contact him/her as soon as feasible to inform him/her of the incident and the need to be tested.
• If the source individual refuses to be tested or does not report for testing within a reasonable time, the source individual’s physician should be contacted; or if the physician is not known, contact the County Health Department Director. The Health Department Director will then take appropriate action.
• Be sure to complete (See APPENDIX L: Hepatitis B Vaccine Declination Form) Additional information should be obtained if the source individual is known. It will be necessary to report the incident to the insurance representative within 48 hours so that a worker’s compensation form can be completed.
• Arrangements for a confidential medical consultation and follow-up are made at no cost to the employee and at a convenient time and location. The Safety Officer sends a letter (APPENDIX M: Letter to Physician) and a completed (APPENDIX N: Exposure Incident Report) form are sent to the physician.
• If known, the source individual’s blood will be tested by a physician for HBV and HIV as soon as feasible and within no more than 48 hours.
• If the source individual is already known to be infected with HBV or HIV, testing will not need to be repeated.
• Whether the source individual blood tests are completed as a result of the exposure incident or previous testing has revealed the source individual to be infected with HBV or HIV, the results of the source individual’s blood tests will be provided to the exposed employee.
• The employee will be informed of applicable laws and regulations concerning disclosure of the identity and the infectious status of the source individual at the time the source individual’s testing results are provided to the employee.
• If the source individual cannot be identified, the exposed employee’s blood will be tested for HBV and HIV infectivity as soon as feasible or within no more than 48 hours and with consent.
• If the exposed employee consents to baseline collection of blood but refuses HIV testing, the laboratory is instructed to preserve the sample for 90 days. (If, the employee elects to have the sample tested during this time period, this testing shall be completed.)
• If all tests on the source person and the exposed employee are negative, and the exposed employee has an adequate Hepatitis B immunity response, there will not be a need for further testing. Each case will be evaluated individually and test results reviewed. If the source person is positive for Hepatitis B or HIV at 6 weeks, 12 weeks, and 6 months after exposure, the employee must give consent for re-testing on each occasion.
• Follow-up of the exposed employee will include counseling, medical evaluation of any acute febrile illness that occurs within 12 weeks post-exposure, and use of safe and effective post-exposure measures according to recommendations for standard medical practices.
• Following an exposure incident, the college will provide the health care professional with the following information if the employee chooses to be treated by his/her personal physician:
  o A copy of The Standard: 29 CFR 1910.1030 if the employee does not have one;
  o A description of the exposed employee’s duties as the duties relate to the exposure incident;
  o Documentation of the route(s) of exposure and the circumstances under which the exposure occurred;
  o Results of the source individual’s HIV and HBV testing, if available; and
- All records relevant to the appropriate treatment of the employee, including his/her vaccination status.
- An evaluation of the employee’s work practices and protective equipment or clothing used at the time of the incident must be made by the Safety Compliance Officer and changes made as indicated.
- The college will provide the exposed employee with a copy of the evaluating health care professional’s written opinion within 15 days of completion of the medical evaluation.

**Influenza, Respiratory, and Other Communicable Related Exposure:**
The Safety Compliance Officer, in efforts to minimize the work-related risks, will work with the National Institute for Occupational Safety and Health (NIOSH). If necessary, a Health Hazard Evaluation (HHE) will be requested through NIOSH.

Employees will notify the Safety Compliance Officer immediately if they believe there has been a case of any communicable related exposure in their classroom or work environments.
APPENDIX A – CHECKLIST TO EVALUATE THE CONFINED SPACE

Do not enter a confined space until all questions have been considered and it has been determined the space is safe.

Use the following checklist to evaluate the confined space.

_____ Yes  _____ No Is the entry necessary?

TESTING

_____ Yes  _____ No Are the instruments used in atmospheric testing properly calibrated?

_____ Yes  _____ No Was the atmosphere in the confined space tested?

_____ Yes  _____ No Was the oxygen level at least 19.5 percent and not more than 23.5 percent?

_____ Yes  _____ No Were toxic, flammable, or oxygen-displacing gases/vapors present?

MONITORING

_____ Hydrogen Sulfide
_____ Carbon Monoxide
_____ Methane
_____ Carbon Dioxide
_____ Other (list)

_____ Yes  _____ No Will the atmosphere in the space be monitored continuously while work is underway?

_____ Yes  _____ No Will the atmosphere in the space be monitored periodically while work is underway? (If yes, note the time interval: _______________)

Remember, atmospheric changes occur due to the work procedure or the product stored. The atmosphere may be safe when you enter, but it can change very quickly.

CLEANING

_____ Yes  _____ No Was the space cleaned before entry was allowed?

_____ Yes  _____ No Was the space steamed?

_____ Yes  _____ No If the space was steamed, was it allowed to cool?

VENTILATION

_____ Yes  _____ No Has the space been ventilated before entry?

_____ Yes  _____ No Will ventilation be continued during entry?

_____ Yes  _____ No Is the air intake for the ventilation system located in an area that is free of combustible dusts and vapors and toxic substances?

_____ Yes  _____ No If the atmosphere was found unacceptable and then ventilated, was it retested before entry?
ISOLATION (Lockout/Tagout)

_____ Yes _____ No Has the space been isolated from other systems?
_____ Yes _____ No Has electrical equipment been locked out?
_____ Yes _____ No Have disconnects been used where possible?
_____ Yes _____ No Has mechanical equipment been blocked, chocked, and disengaged where necessary?
_____ Yes _____ No Have lines under pressure been blanked and bled?

CLOTHING/EQUIPMENT

_____ Yes _____ No Is special clothing required (boots, chemical suits, glasses, gloves, etc.)? If so, specify: ______________________________________________

_____ Yes _____ No Is special equipment required (for example, rescue equipment, communications equipment, etc.)? If so, specify: _____________________________________

RESPIRATORY PROTECTION

_____ Yes _____ No Is respiratory protection required (for example, air-purifying, supplied air, self-contained breathing apparatus, etc.)? If so, specify: ______________________

_____ Yes _____ No Are NIOSH - approved respirators of the type required available at the worksite?

_____ Yes _____ No Can you get through the opening with a respirator on? (If you don't know, find out before you try to enter.)

_____ Yes _____ No Has qualitative/quantitative fit testing been performed?

TRAINING

_____ Yes _____ No Have you been trained in the proper use of a respirator?

_____ Yes _____ No Have you received first-aid training?

_____ Yes _____ No Have you been trained in confined space entry and do you know what to look for?

STANDBY/RESCUE

_____ Yes _____ No Will there be a standby person on the outside in constant visual or auditory communication with the person on the inside?

_____ Yes _____ No Will the standby person be able to see and/or hear the person inside at all times?

_____ Yes _____ No Has the standby person been trained in rescue?

_____ Yes _____ No Will safety lines and harnesses be required to remove a person?

_____ Yes _____ No Are rescue procedures available to be followed in the event of an emergency?

_____ Yes _____ No Are you familiar with emergency rescue procedures?

_____ Yes _____ No Do you know who to notify and how to make notification in the event of an emergency?

PERMIT

A confined space entry permit is an authorization in writing that states that the space has been tested by a qualified person and that the space is safe for entry; what precautions, equipment, etc. are required; and what work is to be done.

_____ Yes _____ No Has a confined space permit been issued?

_____ Yes _____ No Does the permit include a list of emergency telephone numbers?

_____ Yes _____ No Is a Hot Work Permit required for this work?

_____ Yes _____ No If so, is the Hot Work Permit attached to the confined space permit?
RECLASSIFYING PERMIT-REQUIRED CONFINED SPACE

Permit-required confined spaces are reclassified to non-permit confined spaces only as follows:

_____ Yes _____ No Does the space pose no actual or potential atmospheric hazard?

_____ Yes _____ No Have all hazards been eliminated without entry?

_____ Yes _____ No Do the non-atmospheric hazards remain eliminated?

_____ Yes _____ No If entry is required to eliminate hazards, are the requirements of permit-required confined space entry followed? If testing and inspection demonstrates the hazards were eliminated, the space may be reclassified as a non-permit confined space as long as the hazards remain eliminated (control through forced air ventilation is not used to eliminate hazards).

_____ Yes _____ No Has the basis for determining all hazards been eliminated?

_____ Yes _____ No Has the elimination of hazards been documented by certifying the date, location of the space, and signature of the person making the determination and making it available to employees entering the space?

_____ Yes _____ No Have hazards arisen within a permit-required confined space been declassified to a non-permit confined space? If so, each employee in the space must exit the space and the space must be reevaluated and determined if it should be reclassified as non-permit confined space.
APPENDIX B – CONFINED SPACE PERMIT

For pits, trenches, deep excavations, manholes, vaults, tanks, wells, etc.

Identification of Space: __________________________________________________________
Purpose of Entry: _________________________________________________________________
Location: __________________________________________________________________________
Duration: __________________________________________________________________________

Date: __________________ Time Starting: ________________ Time Completed: __________________

Name of All Employees Working This Job: ______________________________________________
Name of Authorized Entrants: ___________________________________________________________
Name of Current Attendants: __________________________________________________________
Name of Entry Supervisor: ____________________________________________________________

How Long to Purge System with Air Flow Before Entry: __________________________________

Atmospheric Check After Isolation and Ventilation
  a. Oxygen Level __________
  b. Flammable Vapors (Methane) ____________
  c. Toxic Vapors (Hydrogen Sulfide) __________
  d. Toxic Vapors (Carbon Monoxide) __________

_____ Yes _____ No Were procedures for entry of a confined space followed?
_____ Yes _____ No Was Confined Space Entry Checklist completed?
_____ Yes _____ No Can Permit-Required Confined Space be downgraded to Non-Permitted Confined Space?

Emergency Telephone Numbers: _______________________________________________________

I have verified or made the above tests; inspected for overall safe conditions and procedures; and ensure the safe condition of lifelines, safety harnesses, mechanical hoist, and other appropriate equipment.

Supervisor: ____________________________ Date: __________________

Qualified Person: ____________________________ Date: __________________
APPENDIX C – AREAS REQUIRING HEARING PROTECTION

Noise areas requiring hearing protection, which have been defined by noise level monitoring, shall have an adequate number of signs requiring the wearing of hearing protectors. Disposable hearing protectors shall be provided at these locations.

The following areas and/or activities require hearing protection:

• Carpentry Lab;
• When operating weed eaters, leaf blowers, chainsaws, and lawn mowing equipment; and
• When operating propane-powered floor buffing equipment.

The following positions are included in this program as appropriate for health and safety of the individual:

• Department-Affected Positions/Employees;
• Buildings and Grounds Workers and Supervisor;
• Buildings and Grounds Maintenance Technicians and Supervisor;
• Career Technologies Carpentry Instructor, Welding Instructor;
• Extension Education Facilities Maintenance Instructor, Welding Instructor; and
• Extension Education (Public Safety Training) Driving Instructors, Firearms Instructors
APPENDIX D – LOCKOUT/TAGOUT TRAINING

Qualified instructors from Blue Ridge Community College EHIS or Durham Tech will provide the training for authorized employees. The outline of topics included in the training follows:

1. Introduction and Purpose
   a. OSHA 29 CFR 1910.147 and Other Applicable Standards
   b. Durham Tech Policy
   c. Goals and Objectives

2. Durham Tech Responsibilities

3. Employee Responsibilities

4. Lockout/Tagout Definitions


6. Tag Limitations

7. Energy Control Procedures
   a. Application of Lockout or Tagout
   b. Release from Lockout or Tagout

8. Testing or Positioning Machines and Equipment

9. Group Lockout or Tagout

10. Shift or Personnel Changes

11. Special Procedures for Multiple Energy Sources

12. Zero Energy State Procedures (ZESP)

13. Outside Contractors

14. Periodic Inspection

15. Responsibility

16. Review of Materials

17. Written Evaluation
APPENDIX E – CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

The tags shown below have been approved by Durham Tech and shall be used as a part of the Hazardous Energy Control Program. Wording on the tags to warn of hazardous conditions may include the following:

- Do Not Start
- Do Not Open
- Do Not Close
- Do Not Energize
- Do Not Operate
APPENDIX F – ZERO ENERGY STATE PROCEDURE

PERFORMING THE EVALUATION

Each department possessing machinery or equipment that will require the use of multiple lockout/tagout methods to achieve a zero energy state shall develop procedures for the lockout and/or tagout of those specific machines and/or equipment. This Zero Energy State Procedure (ZESP) could include any combination of sources such as electrical, hydraulic, pneumatic, potential, thermal, kinetic, chemical, radiation, or other forms of energy.

The following sections contain information regarding the different types of energy sources along with questions to be answered when evaluating machinery or equipment. This will assist supervisors and Durham Tech employees in developing ZESPs for multiple energy source machinery and equipment in their departments.

ELECTRICAL (E)

Definition

Electrical energy is a system for moving electrons through wires to perform work. A magnetic field is produced whenever electrons move through a wire. A magnetic field can generate an electric current when the field moves across a wire.

Examples

Examples of electrical energy systems, in addition to line voltage and current, include rectifiers, amplifiers, transistors, motors, circuit panels, lights, controls, computers, heaters, and batteries.

Potential Hazards

Hazards associated with electrical energy include the potential for electrocution and injuries, primarily burns, due to the discharge of current through the body or due to arcing of the electrical energy.

Questions to Ask When Developing a ZESP

Are there one or more sources of electricity serving the machine?
Have the electrical energy source(s) been totally isolated?

- Pulling or locking out the main disconnects?
- Breaker panels locked?
- Plug-in removed and locked in a can?
- Battery back-up disconnected?
- Has all electrical energy been isolated or bled off?
- Capacitors discharged?
- Can transformers be energized from welding operations on the load side?

The only positive method of isolating electrical energy is pulling the main disconnect and locking. Breaker panels can be equipped with a door hasp to attain lockout of an individual breaker.
HYDRAULIC PRESSURE (H)

Definitions
Hydraulic energy is a system of pumps, valves, hoses, etc. delivering fluid under pressure to perform work. Hydraulic energy performs work through two major routes: cylinders and pumps.

Examples
Examples of hydraulic energy systems include trash compactors, presses, bailers, and forklifts.

Potential Hazards
Hazards associated with hydraulic energy include the potential for crushing and injuries due to the exposure to high-pressure fluid leaks. Amputation and injection of hydraulic fluid into body tissue are additional hazard potentials.

Questions to Ask when developing a ZESP
Are other sources of hydraulic energy used on this machine?
Have the hydraulic energy source(s) been totally isolated?
- Closing all valves?
- Blocking all lines?
- Opening all residual accumulators?
- Blocking cylinders or pumps?
- Has all residual energy or pressure been isolated or bled off?
- Can pressure reaccumulate in the system?

Hydraulics components can create hazards. Pumps can be started accidentally; accumulators maintain a given pressure within the system; check valves can trap pressure in the system; weight on a cylinder will introduce pressure to the system. Common methods of isolating and locking out pressurized circuits are closing and locking valves, blanking pipes, and breaking pipes. After closing and locking a valve, means must be available for bleeding residual pressure from the lines.

PNEUMATIC PRESSURE (A)

Definition
Pneumatic energy is a system of pumps, valves, hoses, and cylinders to deliver air pressure to perform work. Pneumatic components create the same types of hazards as hydraulics.

Examples
Examples of pneumatic energy systems include plant air, air operated presses, lifts, air-actuated over-hydraulics, compressors, conveyors, and air-powered hand tools.
Potential Hazards

Hazards associated with pneumatic energy include the potential for crushing and injuries due to exposure to high-pressure air. Additional hazards include injection of air into the bloodstream, which can result in crippling and death due to air embolism, as well as injection of particulates into body tissue.

Questions to Ask when developing a ZESP

Are there one or more air systems serving the machine?
Have the pneumatic source(s) been totally isolated?
  • Closing all valves?
  • Blocking all lines?
  • Opening all residual accumulators?
  • Blocking cylinders or pumps?
  • Has all residual pressure been isolated or bled off?
  • Can pressure re-accumulate in the system?

OTHER FORMS OF PRESSURE (OP)

Other mediums can create pressure within lines and machinery similar to hydraulic and pneumatic systems.

Examples

Examples of other forms of pressure systems are gases (hydrogen, nitrogen, carbon dioxide, acetylene, oxygen), natural gas (boilers, cafeteria equipment), water (domestic water supply, heat exchangers, chilled water, return water supply), or steam (boilers, heaters, steam traps, heat exchangers, presses, or lifts).

Potential Hazards

Hazards associated with other forms of pressure include the potential for crushing and injuries due to exposure to the medium. Hazards from various media can include thermal burns, fire, asphyxiation, and injection of the medium into the body tissue and/or bloodstream.

Questions to Ask When Developing a ZESP

Are there one or more pressure systems serving the machine?
Have all sources of pressure been totally isolated?
  • Closing all valves?
  • Blocking all lines?
  • Opening all residual accumulators?
  • Blocking cylinders or pumps?
  • Has all residual pressure been isolated or bled off?
  • Can pressure re-accumulate in the system?

POTENTIAL ENERGY (PE)

Common methods of controlling potential energy are blocking, pinning, chaining, or lowering.
**Definition**

Simply defined, potential energy is the energy at rest or due to position.

**Examples**

Springs (S) held in compression or under tension, pins, linkage, hydraulics, pneumatics, vacuum, and magnetic systems can release the positioned components and allow them to move. Gravity (G) by the failure of springs, pins, linkage, etc. can cause machine components or materials to fall (dump trucks, forklifts).

**Potential Hazards**

Hazards associated with potential energy include the uncontrolled release of this energy, which can cause machinery components or materials to go ballistic and cause punctures or penetration injuries, dismemberment, or caught between situations.

**Questions to Ask When Developing a ZESP**

Is there one or more springs, pins, linkage systems, chains, etc. serving the machine?
Have all sources of potential energy been totally isolated, removed, or blocked?

---

**THERMAL ENERGY (TE)**

**Definition**

Thermal energy is the motion of particles at the molecular or particulate level. It involves both hot and cold systems and the transfer of this energy through mediums.

**Examples**

Welding, torch work, chemical reactions, heat exchangers, environmental chambers, boilers, and cryogenic systems. Durham Tech has established 113° F and 39° F as action levels for employees. Temperatures above 113° F and below 39° F can cause serious and severe damage to human tissue.

**Potential Hazards**

Hazards associated with thermal energy are burns, heat stress, or frozen tissue.

**Questions to Ask When Developing a ZESP**

Must the employee work in close proximity to the heat or cold?
Are means available to bring the temperatures above or below the action levels?
Is appropriate personal protective equipment (PPE) available for use?

---

**KINETIC ENERGY (KE)**

**Definition**

Kinetic energy is the energy of machinery or equipment due to its motion.
Examples
Rotating flywheels and spinning shafts create both a contact hazard and point of operation hazard (a spinning flywheel on a press could cause a press cycle when working on the clutch controls).

Potential Hazards
Hazards associated with forms of kinetic energy include caught in, caught on, and caught between situations for employees.

Questions to Ask When Developing a ZESP
Has all energy of motion been stopped?
Are means available to block spinning or rotating machine or equipment parts to prevent them returning to motion?

CHEMICAL ENERGY (CE)

Definition
Chemical energy is the energy associated with chemical reactions such as decomposition, synthesis, or replacement reactions.

Examples
Hazards associated with plating tanks and associated piping and chemical storage tanks.

Potential Hazards
Heat of reaction, uncontrolled reactions, fires, and explosions are the primary hazards with chemical energy.

Questions to Ask When Developing a ZESP
Have pipes and tanks been blocked and/or bled?
Have system tanks and piping been purged or inerted?
Has the residual chemical been neutralized or inactivated?

RADIATION (R)

Definition
Radiation is the emission and propagation of waves or particles.

Examples
Hazards associated with X-ray units and lasers.

Potential Hazards
Irradiation or exposure to alpha, beta, or gamma particles can cause radiation, burns, radiation sickness, and death.
Questions to Ask When Developing a ZESP

Is there a radiation source associated with this machine or equipment?
What is the type of radiation?
Is PPE available for alpha or beta exposure?
APPENDIX G – CONTRACTOR OBLIGATIONS FOR LOCKOUT/TAGOUT

Any contractor who performs work on machinery or equipment at a Durham Tech worksite which has the potential of storing or containing hazardous energy, will be required to document that the contractor’s employees have been trained in standard lockout/tagout procedures.

In addition, any contractor who performs work on machinery or equipment which has the potential of storing or containing hazardous energy, will be required to provide each of his employees with approved lockout/tagout devices.
APPENDIX H-1 – LOCKOUT/TAGOUT PERIODIC INSPECTION INSTRUCTIONS

• Periodic inspections of the energy control system will be conducted at least annually to ensure compliance with Durham Tech’s Hazardous Energy Control procedure and the requirements of 29 CFR 1910.147.

• The Facility Services Director or his/her designee will conduct the inspections. The Maintenance Department may also perform periodic inspections.

• A review will be held with a sufficient number of employees to assess the knowledge of the authorized employees of their responsibilities and procedures under the energy control procedure being inspected.

• The Facility Services Director or his/her designee shall certify that the periodic inspections were completed. The Lockout/Tagout Periodic Inspection form in this appendix will be used to document that the periodic inspection has been completed.

• The Lockout/Tagout Periodic Inspection form and Certification will be filed in the Facility Services Director’s office along with comments regarding where problems may exist and/or additional training may be required.
APPENDIX H-2 – LOCKOUT/TAGOUT PERIODIC INSPECTION REPORT

Date: ______________________________ Time: ______________________________

Name of Inspector: ________________________________________________________

Machine or Equipment: _____________________________________________________
Location: ________________________________________________________________
Maintenance/Services Conducted: _____________________________________________
________________________________________________________________________
________________________________________________________________________
Authorized Employee(s): ___________________________________________________
Affected Employee(s): _____________________________________________________

INSPECTION PROCEDURE

1. General review of responsibilities and procedures were satisfactory? (See LO/TO Procedure Card) _____Yes _____No
Comments: ____________________________________________________________________________

2. Knowledge of machine/equipment energy types were satisfactory? _____Yes _____No
List Energy Types: _________________________________________________________________
Comments: __________________________________________________________________________

3. Knowledge of machine/equipment control methods were satisfactory? _____Yes _____No
List Required Controls: _____________________________________________________________
Comments: __________________________________________________________________________

4. Other Comments or Deficiencies Identified: _________________________________________

5. Recommend Refresher Training? _____Yes _____No

CERTIFICATION

I hereby certify that an inspection was performed on the Lockout/Tagout procedure utilized by the
employee(s) indicated above on the aforementioned machine and/or equipment to ensure the procedure and
requirements of OSHA 29 CFR 1910.147 (Control of Hazardous Energy Lockout/Tagout) are being satisfied. The
findings of this inspection have been reviewed with the employee(s) performing the servicing and/or
maintenance work being inspected.

Inspector: _____________________________________________ Date: ________________________

Authorized employee(s): _____________________________________ Date: ______________________

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APPENDIX I – DEPARTMENTS AND PROGRAMS IMPLEMENTING EXPOSURE CONTROL PLAN

The following Department Heads, Programs Directors, and/or Supervisors are responsible for implementing the Exposure Control Plan in their specific administrative, instructional, or support areas and ensuring compliance by their respective employees and/or students:

- Department Head, Health Technologies Department
- Program Director, Associate Degree Nursing
- Program Director, Clinical Trials Research Associate
- Program Director, Dental Laboratory Technology
- Program Director, Occupational Therapy Assistant
- Program Director, Opticianry
- Program Director, Pharmacy Technology
- Program Director, Practical Nursing
- Program Director, Respiratory Therapy
- Program Director, Surgical Technology
- Discipline Chair, Science
- Program Director, Basic Law Enforcement Training
- Program Director, Environment, Health, and Safety Technology
- Program Director, Nursing Assistant/Nurse Aide (Public Safety Services)
- Program Director, Emergency Medical Services (Public Safety Services)
- Program Director, Fire Service (Public Safety Services)
- Program Director, Law Enforcement Extension (Public Safety Services)
- Director, Facility Services
- Supervisor, Housekeeping
- Director, Campus Police and Public Safety Department (See Appendix O for Campus Police and Public Safety)
APPENDIX J – EXPOSURE CLASSIFICATION / EXPOSURE CONTROL PLAN

At the college, the following classifications are identified as having significant risk potential for occupational exposure during the performance of on-campus laboratory instruction, the performance of off-campus clinical instruction, and/or the provision of first aid/CPR in the event of on-campus emergencies:

- Associate Degree Nursing instructors and students;
- Cardiopulmonary Resuscitation instructors and students;
- Emergency Medical Services instructors and students;
- Nursing Assistant/Nurse Aide instructors and students;
- Occupational Therapy Assistant instructors and students;
- Practical Nursing instructors and students;
- Respiratory Therapy instructors and students;
- Surgical Technology instructors and students;
- Science laboratory technicians, and students; and
- Campus Police and Public Safety officers. (See Appendix O for Campus Police and Public Safety)

In accordance with the approved affiliations agreements for the above listed instructional programs, the college’s instructors will be subject to the standards and guidelines of the specific health care agency’s exposure control plan while performing clinical instruction at the clinical facility.

At the college, the following classifications are identified as having low or insignificant risk potential for occupational exposure relative to the performance of on-campus laboratory instruction:

- Dental Laboratory Technology instructors and students;
- Housekeeping staff (as designated);
- Opticianry instructors and students; and
- Pharmacy Technology instructors and students.
APPENDIX K – HEPATITIS B VACCINE RECORD FORM

Hepatitis B: Special Precautions

I have read information about Hepatitis B and have had an opportunity to ask questions. I understand the benefits and risks of the Hepatitis B vaccine and voluntarily agree to be immunized. I understand that I must have three doses of the vaccine to confer immunity. As with all medical treatments, there is no guarantee that I will become immune. I am in general good health. I am not immunosuppressed, on hemodialysis, pregnant, or breast-feeding.

Name: _____________________________________________ Date of Birth: ___________ Age: _____

Address: _____________________________________________________________________________

City: _______________________ State: _____ Zip: ____________ Home Phone: __________________

Signature: _____________________________ Date: _______________ Department: _______________

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APPENDIX L – HEPATITIS B VACCINE DECLINATION FORM

(Complete Either Section 1 or 2)

SECTION 1

If you have never received Hepatitis B vaccine:

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 the Hepatitis B vaccine at no charge to myself. However, I decline the 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 the Hepatitis B vaccine, I can receive the vaccination at no charge to myself.

Signature of Employee: ___________________________________________________________________

Date: ____________________________________________________________________________

SECTION 2

If you have previously received the Hepatitis B vaccine through another organization or employer:

I have been given the opportunity to be vaccinated with the Hepatitis B vaccine at no charge to myself. I decline the Hepatitis B vaccination at this time due to the fact that I have previously received all three doses of the Hepatitis B vaccine through another organization or I know that I already have immunity due to my Hepatitis B antibody count.

Signature of Employee: ___________________________________________________________________

Year of Hepatitis B Vaccine: ___________________________________________________________________

Through what organization or employer did you receive the Hepatitis B vaccine?

____________________________________________________________________________________
APPENDIX M – LETTER TO PHYSICIAN

Letter to Physician Evaluating Employee Injured from Possible Blood Exposure

Dear Dr. ________________________________:

An person at Durham Tech encountered a blood exposure injury on ________________. Please refer to the attached injury report (Exposure Incident Report form) for the route of entry and circumstances regarding this incident. This person has come to you for a medical evaluation, and you may treat the person as medically indicated. The college can provide you a copy of the U.S. Public Health Service recommendations regarding these testing and treatment options if you would like the college to do so.

The status of the source individual which may have infected the person is indicated below:

_______ The source individual cannot be determined.

_______ The source individual has given his/her consent for HBV/HIV antibody testing to be completed.

_______ The source individual is known to be HBV or HIV positive.

A brief description of the blood exposure injured person's duties as follow:

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

A copy of the medical evaluation must be delivered to the person within 15 working days of the blood exposure injury. In your report, please limit your findings to indicate that the person has been informed of the results of the evaluation and has been informed of any medical condition possible resulting from the exposure during the incident and any further treatment which may be needed. The results of the investigation of this injury will be treated confidentially by all parties.

Thank you for your assistance.

Sincerely,

Durham Tech Representative’s Name __________________________________________________________

Title __________________________ Contact Number __________________________
APPENDIX N – EXPOSURE INCIDENT REPORT FORM

Name of Exposed: ______________________________________________________

Date of Incident: ___________________ Time of Incident: _________________________

Location: __________________________________________________________________

Type of Exposure (puncture, splash, cut, etc.): _____________________________________

Type of Infectious Material (blood, body tissue, body fluid, vomit...) and Amount if Known:

Parts of Body Exposed: _______________________________________________________

Severity of Exposure (depth of puncture, etc.): _________________________________

Circumstances (work being performed, etc.): _____________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

1. How and Why the Exposure Incident Occurred: _________________________________

2. The Action Being Performed at the Time: ____________________________________

3. Whether the Action Being Performed is a Routine Part of the Employee's Job or Student Activity:

__________________________________________________________________________

Methods of Control in Place: ________________________________________________

Personal Protective Equipment Being Used: _________________________________

If Personal Protective Equipment Was Not Being Used, Explain Why: _______________

__________________________________________________________________________

Action Taken (decontamination, clean-up, reporting, etc.): _________________________

__________________________________________________________________________

Recommendations for Avoiding Future Incidents: ________________________________
APPENDIX O – CAMPUS POLICE AND PUBLIC SAFETY EXPOSURE CONTROL PLAN

Purpose

The purpose of this policy is to provide Durham Tech Police and Public Safety Officers with guidelines for preventing the transmission of blood borne pathogens such as HIV/AIDS virus, Hepatitis B, Hepatitis C, and from contact with blood or other potentially infectious body fluid. As delegated by the Department of Health and Human Services NIOSH has created a list of potentially life-threatening infectious diseases. The list is subdivided into those routinely transmitted by: 1) contact or body fluid exposure, 2) aerosolized airborne means, 3) aerosolized droplet means, and 4) agents potentially used for bioterrorism or biological warfare.

Policy

It is the responsibility of the Durham Tech Police Department to take all reasonable measures to allow its members to perform their duties in a safe and effective manner. The safe performance of daily operations is threatened by blood borne pathogens that can be contracted through exposure to infected blood and body fluids. Therefore, it is the policy of this agency to continuously provide employees with information and education on prevention of these diseases, provide up-to-date safety equipment and procedures that will minimize their risks of exposure and to institute post-exposure reporting evaluation and treatment for all members exposed to these diseases. Appendix O recognizes the potential for Campus Police and Public Safety to have a higher potential to exposure outside the academic controlled environments. Appendix O is to be additional guidance to that information provided in the Durham Tech Health and Safety Manual (pages 70-81) and the Ryan White HIV/AIDS Treatment Extension Act of 2009. Flow charts are provided at the end of this appendix to assist Officers and staff (Figure 2 and Figure 3). Once an exposure has occurred the Safety Compliance Officer will work closely with medical professionals involved in the case. The Safety Compliance Officer will also receive routine notifications from medical facilities if medical professionals determine a potential that any source person had a listed disease which may have been transmitted by airborne or aerosolized means. All documentation will be maintained pursuant to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Peer Review material pursuant to N.C.G.S § 90-21.22A.

Definitions:

**Bloodborne Pathogens**: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include but are not limited to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

**Contaminated**: The presence, or reasonably-anticipated presence, of blood or other potentially-infectious materials on an item or surface.

**Contaminated Sharps**: Any contaminated object(s) that can penetrate the skin.

**Engineering Controls**: Controls (e.g., sharps disposal containers) that isolate or remove the bloodborne pathogen hazard from the workplace.

**Needleless Systems**: A device that does not use needles for the following:
- The collection of body fluids or withdrawal of body fluids after initial venous or arterial access is established;
• The administration of medication or fluids; or
• Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to subcutaneous injuries from contaminated sharps.

**Occupational Exposure:** Any reasonably-anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially-infectious materials that may result from the performance of an employee’s duties.

**Sharps with Engineered Sharps Injury Protections:** A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

**Other Potentially Infectious Materials:** Includes such materials as the following:
- Fluids such as semen, vaginal secretions, cerebrospinal fluid (CSF), synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
- An unfixed organ or tissue (other than intact skin) from a human; or
- HIV-containing cells or tissue cultures, organ cultures, and HIV- or HIV-containing culture medium or other solutions, blood, organs, or other tissues from experimental animals infected with HIV or HBV.

**Personal Protective Equipment (PPE):** Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts, blouses) are not considered to be personal protective equipment.

**Regulated Waste:** Contaminated items that would release blood or other potentially-infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially-infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially-infectious materials.

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

**Work Practice Controls:** Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

**Procedures:**

1. **General Disease Prevention Guidelines**
   A. Durham Tech’s Campus Police and Public Safety Infection Control policy in conjunction with the college’s infection control policies shall provide the overall strategy for limiting exposure to blood borne pathogens and responding to potential exposure incidents. The College’s infection control policies are found in the Health and Safety Manual pages 70-81.
   B. Durham Tech’s Campus Police and Public Safety subscribes to the principles and practices for prevention of blood borne pathogen exposure as detailed in the “standard precautions” prescribed by the federal regulations of the Occupational Safety and Health Administration. Where otherwise not detailed in this policy or the College’s Exposure Control Plan, officers shall be guided by these practices and procedures.
2. Workplace Controls and Personal Protective Equipment
   A. In order to minimize potential exposure, officers should assume that all blood and body fluid is potentially infectious for blood borne pathogens.
   B. When appropriate protective equipment is available, no member shall refuse to arrest or otherwise physically handle any person who may be infected with a blood borne pathogen.
   C. Members shall use protective gear under all appropriate circumstances unless the member can demonstrate that in a specific instance, its use would have prevented the effective delivery of health care or public safety services or would have imposed an increased hazard to his safety or the safety of another co-worker. All such instances shall be reported by the employee and shall be investigated and appropriately documented to determine if changes could be instituted to prevent similar occurrences in the future.
   D. Disposable gloves shall be worn when handling any person, clothing, or equipment contaminated with body fluids.
   E. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of potentially infectious materials may be generated and mucous membrane (eye, nose, or mouth) contamination is anticipated.
   F. Gowns, aprons, lab coats, clinic jackets, or other outer garments shall be worn as determined by the degree of exposure anticipated.
   G. Plastic mouthpieces or other authorized barrier/resuscitation devices shall be used whenever an officer performs CPR or mouth-to-mouth resuscitation.
   H. All sharp instruments such as knives, scalpels, and needles shall be handled with extraordinary care and should be considered contaminated items.
      i. Leather gloves or their protective equivalent shall be worn when searching persons or places, or when working in environments, such as accident scenes, where sharp objects and body fluids may be encountered.
      ii. Searches of automobiles or other places should be conducted using a flashlight, mirror, or other devices where appropriate. Subsequent to a cautious frisk of outer garments, suspects should be required to empty their pockets or purses and to remove all sharp objects from their person.
      iii. Needles shall not be recapped, bent, broken, removed from a disposable syringe, or otherwise manipulated by hand.
      iv. Needles shall be placed in a puncture resistant, leak-proof container that are marked as biohazardous when being collected for evidence, disposal, or transportation purposes.
   I. Officers shall not smoke, eat, drink, or apply makeup around body fluid spills.
   J. Any evidence contaminated with body fluids shall be completely dried, double bagged, and marked to identify potential or known communicable disease contamination.

3. Custody and Transportation of Prisoners
   A. Officers shall not put their fingers in or near any person’s mouth.
   B. Individuals with body fluids on their persons shall be transported in separate vehicles from other persons. The individual may be required to wear a suitable protective covering if he is emitting body fluids. Individuals who are bleeding shall be transported by EMS to the nearest hospital unless exigent circumstances exist (in the opinion of the supervisor) necessitating immediate transport in a department vehicle.
   C. Officers have an obligation to notify relevant support personnel during a transfer of custody when the suspect has body fluids present on his person, or has stated that he has a communicable disease.
D. Suspects taken into custody with body fluids on their persons shall be directly placed in a
designated area for processing for the purpose of limiting contamination to police facilities and
equipment.
E. Officers shall document on the appropriate arrest or incident form when a suspect taken into
custody has body fluids on his person, or has stated that he has a communicable disease.

4. Housekeeping
A. Supervisors and their officers are responsible for the maintenance of a clean and sanitary
workplace and shall conduct periodic inspections to ensure that these conditions are maintained.
B. All supervisory personnel shall determine the appropriate means of cleaning and decontamination
based on the location within the facility or work environment, the type of surface or equipment to
be cleaned, the amount of hazardous material/fluid, the type of soil present, and the tasks and
procedures to be performed in the area. The Chief of Police shall determine what areas of the
department, if any, will be subject to regular cleaning and decontamination. Dispatch will contact
the Housekeeping Supervisor when cleanup of large spill areas is more than can be handled with a
spill kit. (see section 5, subsection B of this policy).
C. All equipment and work surfaces must be cleaned and disinfected with an EPA approved
disinfectant after contact with blood and other potentially infectious materials as provided in this
policy.
D. Any protective coverings used for covering surfaces or equipment in laboratory, evidence custody,
or enforcement operations shall be removed or replaced as soon as possible following actual or
possible contamination.
E. Broken and potentially contaminated glassware, needles or other sharp instruments shall not be
retrieved by hand but by other mechanical means such as forceps or brush and dust pan, and shall
not be stored in a manner that requires manual retrieval.
F. Officers shall remove clothing that has been contaminated with body fluids as soon as practical and
with as little handling as possible. Any contaminated skin area shall be cleansed in the prescribed
fashion.
G. Contaminated laundry and personal protective equipment shall be bagged or placed in a leak-proof
container, labeled as biohazard but shall not be sorted, rinsed or cleaned at that location.
Contaminated laundry, including uniforms, will be cleaned by contract linen service.
H. All employees who handle contaminated laundry will utilize personal protective equipment to
prevent contact with blood or other potentially infectious materials.
I. Bins, pails, and similar receptacles used to hold actual or potentially contaminated items shall be
labeled as bio hazardous. These receptacles shall be decontaminated with an EPA approved
disinfectant as soon as feasible following contamination and then inspected and decontaminated
on a regularly scheduled basis. Bio hazardous storage containers shall not be placed in areas where
food and drink are stored or consumed.

5. Disinfection
A. Any unprotected skin surfaces that come into contact with body fluids shall be thoroughly washed
as soon as possible with hot running water and soap for at least five (5) minutes before rinsing and
drying.
   i. Waterless hand cleaner or antiseptic towelettes may be used where soap and water is
      unavailable.
   ii. Hands should be washed after removal of disposable gloves.
   iii. All open cuts and abrasions shall be covered with waterproof bandages before reporting to
duty.
   iv. Exposure of mucous membranes (eye, nose, or mouth) will be flushed with water for fifteen
      (15) minutes as soon as feasible following the exposure.
B. Cleaning Spills of Blood and Other Potentially Infectious Material
Always use protective gloves and other personal protective equipment (PPE) as appropriate for the task.

i. To clean a very small spill or splatter (<5ml or about a teaspoon)
   a. Don gloves
   b. Wipe clean with disinfectant (Dispatch)
   c. May be disposed in regular trash

ii. To clean larger spills that can still be absorbed by paper towels
   a. Don gloves
   b. Carefully remove visible blood with paper towels or some other absorbent paper and dispose in biohazard waste container.
   c. Do not use your hands to pick up any contaminated sharps or broken glass bag.

iii. To clean large amounts of blood (more than can be absorbed by paper towels)
   a. Secure the area to prevent other exposures.
   b. Report spill to supervisor. Call Housekeeping if mops and buckets are required.
   c. Utilize Biohazard spill kit.
   d. Don PPE (gloves, gown, mask and eye protection).
   e. Sprinkle absorbent powder on the spill.
   f. Remove solidified material using brush and dustpan, and place in biohazard bag.
   g. Apply disinfectant to the spill area, keeping the area wet for ten (10) minutes.
   h. Wipe clean or air dry.
   i. Discard all cleaning equipment and PPE in biohazard waste bag.
   j. Wash hands using soap and water

C. Department Vehicles
Disinfection procedures shall be initiated whenever body fluids are spilled in a departmental vehicle or an individual with body fluids on his person is transported in a departmental vehicle.

i. A supervisor shall be notified and the vehicle taken to the designated service center as soon as possible.

ii. Affected vehicles shall be immediately designated with the posting of an “Infectious Disease Contamination” sign upon arrival at the service center and while awaiting disinfection.

iii. Service center personnel shall remove any excess body fluids from the vehicle with an absorbent cloth, paying special attention to any cracks, crevices, or seams that may be holding fluids.

iv. The affected areas should be thoroughly cleaned with hot water and detergent and disinfected with an EPA approved disinfectant.

6. Supplies
A. Supervisors are responsible for continuously maintaining an adequate supply of disease control supplies in a convenient location for all affected personnel in their unit. This includes, but is not limited to, ensuring that:
   i. Personal protective equipment in appropriate sizes, quantities, and locations are available
   ii. Hypoallergenic gloves and other materials are available for those who are allergic to materials normally provided, and cleaning, laundering and disposal, as well as repair or replacement of these and other items is provided; and
   iii. First aid supplies and disinfecting materials are readily available at all times.

B. The following infection control supplies shall be available to all sworn personnel at designated location(s) within the Department. The Chief of Police will ensure supplies are continuously stocked with the same supplies:
   i. A disinfectant such as Dispatch
ii. Gloves

iii. Biohazard bags

iv. “Biohazard” signs, tape, or other instruments used to label areas or vehicle as a biohazard.

C. Officers using supplies stored in their vehicles are responsible for ensuring that the supplies are replaced as soon as possible via notification to Dispatch that supplies were used.

D. Officers are required to keep disposable gloves in their possession while on either mobile or foot patrol.

7. Vaccination, Exposure, Evaluation, and Treatment

A. All members of this agency who have been determined to be at risk for occupational exposure to the hepatitis B virus shall be provided with the opportunity to take the HBV vaccination series at no cost within ten (10) working days of assignment to an occupationally exposed duty. The vaccination shall be provided in conjunction with required departmental training, unless previously vaccinated or immune or contraindicated for medical reasons. Those who decline to receive the vaccine will complete a written OSHA declination form (provided by the Durham Tech Benefits Coordinator) and a copy will be forwarded to the Safety Compliance Officer. Any employee who initially declines to take the vaccine may later choose to be immunized.

B. Any person who has unprotected physical contact with blood or other body fluids of another person while in the line of duty shall be considered to have been potentially exposed to blood borne pathogens.

C. In case of exposure, a supervisor shall be contacted who shall complete appropriate duty injury and medical forms and shall take appropriate steps to document the means and circumstances under which the exposure occurred.

D. Immediately after exposure, the officer shall proceed to the designated health care facility for tests of evidence of infection and treatment of any injuries. The officer shall report to the designated health care facility (Concentra Medical Center) for initial evaluation, with follow-up care at no cost to the employee. Exposure to known HIV is the only exposure which is an urgency as medication should start within twenty-four to forty-eight (24-48 hours).

   i. This department shall ensure continued testing of the member for evidence of infection for up to six (6) months and provide psychological counseling as determined necessary by the Safety Compliance Officer and Medical Professionals.

   ii. The members shall receive a copy of the health care provider’s written opinion within fifteen (15) days of the evaluation and information on any conditions resulting from the exposure that requires further evaluation or treatment.

   iii. Unless disclosure to an appropriate departmental official is authorized by the officer or by state law, the officer’s medical evaluation, test results and any follow-up procedures shall remain confidential.

E. Testing of Source of Exposure

   i. OSHA Standard states that the source of exposure will be identified and reported to the employer; however, the employer can request that the source be tested for blood borne infection, but the source must consent to be tested. Any person responsible for potentially exposing a member of this agency to a communicable disease shall be encouraged to undergo testing to determine if the person has a communicable disease.

   ii. In practice, Durham Tech employees will go to Concentra Medical Center for testing and follow-up care of the officer. The source should be taken to Concentra Medical Center for testing (if they consent) and the visit and lab charges will be charged to Durham Tech. If an officer is bitten and blood is drawn the blood the officer then is the source patient and would require labs to see if the person that bit the officer would have been exposed to anything.
iii. The results of source testing will be provided to the employee. The employee shall be informed of applicable state and/or college laws and regulations concerning the disclosure of the identity and infectious status of the source individual.

iv. Criminal charges may be sought against any person who intentionally exposes a member of this agency to a communicable disease.

F. Officers who test positive for HIV, HBV, or HCV may continue working as long as they maintain acceptable performance and do not pose a safety and health threat to themselves, the public or other members of this department.

   i. The department shall make all decisions concerning the employee’s work status solely on the medical opinions and advice of Concentra Medical Center health care officials.

   ii. Durham Tech’s Campus Police and Public Safety may require an employee to be examined by Concentra Medical Center physicians to determine if he is able to perform his duties without hazard to himself or others.

G. All members of Durham Tech’s Campus Police and Public Safety shall treat employees who have contracted communicable disease fairly, courteously, and with dignity.

8. Record Keeping
   A. All Durham Tech Employee Health records are maintained by the college for the duration of the member’s employment plus thirty (30) years and may not be disclosed or reported without the express written consent of the member. There shall be no protected health information provided to the department.

   B. The Chief of Police will supply a copy of training records to the Safety Compliance Officer. Training Records are located in the offices of the Chief of Police and in the Safety Compliance Officer’s.

   C. These personnel records shall be retained in a secured area with limited access. Secured access means behind a locked door and inside at minimum a lockable filing cabinet. All Personal Identifiable Information (PII) will be protected at all times.

9. Training
   A. The department training coordinator shall ensure that all members of this department with occupational exposure to blood or other potentially infectious materials are provided with a complete course of instruction on prevention of blood borne diseases within ten (10) days of their initial assignment.

   B. All affected employees shall receive annual refresher training and additional training whenever job tasks or procedures are modified in a manner that may alter their risk of exposure.

   C. All trainees shall have access to applicable federal and state regulations pertaining to the regulation of blood borne pathogens which are posted on the Durham Tech website.

   D. The training coordinator shall ensure that complete records are maintained on member training to include information on the dates and content of training sessions, names, and qualifications of persons conducting the training and the names and job titles of all persons attending the training sessions. These records shall be maintained for a period of three years from the date of training.
EMERGENCY RESPONSE EMPLOYEE REQUESTS ASSISTANCE FOR POSSIBLE EXPOSURE

Emergency Response Employee (ERE) Transport Victim

Requests determination of whether ERE was exposed to listed disease

Safety Officer (SO) collects facts and determines if exposure to listed disease may have occurred

Send facts to medical facility and request determination of whether exposure to a listed disease occurred

Medical facility reviews facts submitted by SO and victims clinical information

Determination

Exposure

No exposure

No diagnostic information

Find facts about exposure submitted by SO to be insufficient

Notify ERE

NO

See Figure 3

YES

Decide whether to request assistance of Public Health Officer

Notify SO within 48 hours

Notify SO within 48 hours

Figure 2
Safety Compliance Officer requests assistance of Public Health Officer

Safety Officer (SO) submits request to Public Health Officer

Public Health Officer within 48 hours evaluates the request, determines if exposure facts are sufficient and responds

Resubmits request to medical facility

Medical facility reviews facts submitted by Public Health Officer and victims clinical information

Notify SO within 48 hours

Exposure
No exposure
No diagnostic information

Provides SO with advice on collection of facts about possible exposure

Notifies ERE

Figure 3
# APPENDIX P – HEALTH AND SAFETY MASTER HAZLOG

## HEALTH AND SAFETY MASTER HAZARD LOG

### Area Safety Inspection and Correction Summary

<table>
<thead>
<tr>
<th>Inspection Date</th>
<th>Building / Area</th>
<th>Hazard (unsafe work condition)</th>
<th>Risk H/M/L</th>
<th>Individual For Follow-Up (Assigned to)</th>
<th>Corrective Action</th>
<th>Date (corrected / closed)</th>
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