



Contractors Safety Guide

MUST READ & SIGN

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All contractors and their employees performing work activities in facilities or on properties of Cuyahoga Community College (Tri-C) shall be issued a copy of this guide as part of the pre-bid material for bid and capital projects and prior to beginning work on any campus or facility. If you are using a cell phone, please inform the Police Department of the city you are in to patch you through to the Tri-C Police dispatching center so they can properly guide emergency crews to the correct location(s)

Important Phone Numbers:

Campus Emergency -----4911
Campus Police Non-Emergency -----216-987-4325
EHS -----216-987-3557
West Plant Manager -----216-987-5346
East Plant Manager -----216-987-2347
Metro Plant Manager -----216-987-4508
Westshore Plant Manager -----216-987-5807
CCW Plant Manager -----216-987-5856
CCE Plant Manager -----216-987-2931
Brunswick University Center -----216-987-2930
STJC/HMC/TIC -----216-987-4718

Accidents

Please refer to the Tri-C Office of Environmental Health & Safety (EHS) web site for the following:

- Procedures for Injuries/Illnesses at Work
If you become injured at work, injured (ill) employees shall follow these procedures
- Report Accidents/Incidents on Campus by downloading Accident Report Form Employee Rights and Responsibilities

Asbestos

Many Tri-C buildings have asbestos or material that has not been tested and is considered presumed asbestos-containing material (PACM). These locations will be made known to the Project Manager upon request. The Project Manager will make known the asbestos hazards in the work area before work is initiated.

All renovations or demolitions have to be approved by the Project Manager and Environmental Health & Safety prior to any project start up. All documentation (i.e. testing, clearances, etc.) must be provided to the Project Manager.

Only trained and certified contract workers will handle all asbestos projects.

Automatic Sprinkler Work

The Executive Director, Emergency Manger, Fire & Safety Systems must approve all plans for contract work dealing with fire suppression equipment and Campus Police will be notified before work starts. No Hot Work Permits will be issued for the contracted work area until fire suppression work has been completed.

Barricades and Guardrails

Hazardous areas must be cordoned off with barricades or tape to restrict access to employees, students and the general public, and Tri-C staff and students. All guardrails must meet the Occupational Safety & Health (OSHA) Standards for guardrail construction and standards for fall protection of workers must also be met. When barricades, guardrails or opening covers must be removed for work to proceed, permission to remove them must be obtained from the Tri-C Project Manager. Fall protection devices must be used to protect workers in conjunction with appropriate tie-off locations. Barricades, guardrails and covers must be replaced immediately after work is completed.

Blasting Operations

Advance notification of blasting operations must be provided to the Project Manager, Environmental Health & Safety, Campus Police Department, Cleveland Fire Department and local officials. The contractor is solely responsible to obtain all necessary permits from the appropriate agencies to conduct these operations and must also supply a copy

of these permits to the Project Manager prior to project initiation. Final authority to proceed must be granted by the Tri-C Project Manager prior to the onset of the operation.

All explosives and detonation caps must be removed from the Tri-C property at the end of each workday unless the contractor has made arrangements with the Tri-C Project Manager and the Tri-C Police Department, and blasting equipment must be stored in an approved magazine while on Tri-C property.

Break Rooms

Contractors are only allowed access to break rooms as determined by the Project Manager.

Burning, Welding or Cutting

A Tri-C Hot Work Permit must be obtained from the Plant Manager before any burning, welding or cutting operations. Non-combustible, flame-proof shields or screens must be used to protect Tri-C employees, general public, and students from direct rays and/or arc flash. A fire watch must be maintained and all adjacent combustible materials must be removed or protected from the area. All work practices must conform to those of the American Welding Society as well as the instructions on the Hot Work Permit. Contractors must furnish their own 10 pound ABC rated fire extinguisher. All smoke detectors in the area must be covered or bagged to prevent contaminants and smoke from getting into to the detector and causing alarm. Also, if the fire system needs to be taken out of service temporarily. The Executive Director, Emergency Manger, Fire & Safety Systems must be notified and grant approval prior to any temporary shutdowns or the covering of fire detection equipment.

Chemicals

Contractors must assure the safe use and disposal of any chemicals, tools, equipment or other materials with which they are working. Under no circumstances are chemicals to be emptied into drains or left behind for Tri-C to dispose of.

Contractor must provide the Tri-C Project Manager and EHS with a list of chemicals to be used on Tri-C property and a copy of the Safety Data Sheet (SDS) that is compliant with the current OSHA Hazard Communication Standard (i.e., Global Harmonization System-compliant). The SDS must be accessible at all times when contractors are working with said chemical(s). Each chemical container that is brought on Tri-C's property must be labeled with the identity of the chemical, any hazard rating, the name of the contractor and any subcontractor using the chemical. Contractors must follow the safety procedures recommended by the manufacturer of any chemicals, tools and equipment or other materials used on Tri-C property, including but not limited to the procedures set forth in the SDS, those described in additional literature distributed with the items used, and those described in labels attached to the items or containers.

Combustion Engines

Liquefied petroleum (LP) or any combustion-type engine may be used with restrictions. Permission must be obtained from the Project Manager before using such equipment on, around or near any Tri-C building.

Compressed Air

Compressed air should never be used to clean dust from a worker's clothes or body.

Compressed Gas Cylinder

All compressed gas cylinders, whether in use or in transit, must be fastened securely in an upright position by a chain, suitable strap or a rigid retaining bar or structure. Compressed gas cylinders shall be secured on approved carriers or holders and must always be maintained in an upright position.

Regulators are required to reduce compressed gases to safe operating pressures. If a leak develops in a cylinder, it shall be immediately removed to a safe location outside. The supplier of the cylinder shall be notified if necessary. Cylinders must be permanently marked or stenciled to identify the type of gas in the cylinder in accordance with the requirements of ANSI Standards.

Confined Space Entry Permits

A confined space is a space that: (1) Contains or has a potential to contain a hazardous atmosphere. A hazardous atmosphere is an atmosphere that may expose employees to the risk of death, incapacitation, or impairment of 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 explosion limit (LEL).
- Combustible dust at a concentration that meets or exceeds its LEL (approximated to a visibility of 5 feet or less).
- Atmospheric oxygen concentration below 19.5% or above 23.5%.
- Atmospheric concentration of any substance for which a dose or permissible exposure limit has been established.
- Any other atmospheric condition that is immediately dangerous to life or health.

(2) Contains a material that has the potential for engulfing an entrant such as water, sand, and soil; (3) 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 (4) Contains any other recognized serious safety or health hazard.

The contractor must have a copy of their Confined Space Entry Program on site and have all necessary equipment for entry. Prior to entering, the contractor must notify EHS staff of their intent to enter a confined space. A contractor may not enter any confined space until authorized to do so by the Project Manager. Once approved, the Project Manager will issue the permit.

Contractor Access

For security reasons, a contractor's access to Tri-C buildings is restricted to designated entrances. Emergency exits shall only be used in the event of an emergency. Doors locked from the outside (emergency exits) must never be propped open without the prior approval of the Project Manager.

Before work starts:

1. Contractors must provide key loss insurance up to \$250,000.00.

2. Contractors who will be working with asbestos must show certification to the Project Manager and EHS of attendance to an approved asbestos awareness course for all workers.
3. Contractors must provide PPE (personal protective equipment) for their workers at all times.
4. Contractors must provide evidence of safety training to the Project Manager and EHS.

Electrical

All electrical installations must comply with the requirements of the National Electrical Code, NFPA 70E and Tri-C's Electrical Standards. All equipment being worked on at Tri-C will be at a zero state for energy potential if possible to minimize the risk of injury.

Whenever work is to be performed on systems exceeding 600 volts, special instructions must be obtained and followed from the Plant Manager. An Energized Work Permit must be completed and approved by the Plant Manger before work may begin. Contractor must coordinate access/shutdown of any electric system with the Plant Manager. New equipment will use the same labeling used on existing equipment. Proposed grounding must be approved by the Plant Manager. The Project Manager must receive Lockout / Tag out documents from the General Contractor who would then forward to EHS for review before the project starts. See Appendix A for minimum requirements for Lockout / Tag out.

Emergency Equipment

Tri-C fire or emergency equipment must not be moved, blocked or have access restricted, unless specific permission to do so has been granted. This permission will be granted on a case-by-case basis by the Executive Director, Emergency Manger, of Safety and Security Systems. Fire protection and detection systems must not be moved, modified or disabled without the permission of the Access Control Manager or the Fire Prevention Officer.

Excavation and Trenches

Before beginning any excavation work, the existence and location of all underground pipes, tanks and equipment must be determined. The OSHA construction standard for excavation must be followed in all excavation projects.

Eyewash and Safety Shower

Water supply to eyewash and safety shower stations must be assured at all times. If work requires a shut-down of the water supply, building occupants must be notified in advance. Contact the Project Manager and EHS for additional information.

Facilities

The use of Tri-C owned equipment such as electrical trucks, machinery, and power/hand tools is not permitted except where specifically authorized by the Tri-C Plant Manager.

Contractor personnel are not to operate valves or controls to shutdown, isolate, start or adjust operating systems or equipment without specific permission of the Tri-C Plant Manager. When

working on systems which could be activated or on isolated sections of active systems, the isolation device must be locked and tagged out (Appendix A). The Tri-C Project Manager will arrange the notification and scheduling of Lockout/Tag out with affected Tri-C areas in accordance with the project specifications.

Fall Protection

All safety belts and lanyards must meet OSHA requirements. When a lanyard is a wire rope or nylon webbing, a shock absorber must be used.

Fire

1. Contractors shall preview work areas to identify components of the fire alarm detection, notification and activation devices, sprinkler and or special suppression systems that may be affected by their work. Contractors shall work with the Executive Director, Emergency Manger, Fire and Safety Systems and make necessary provisions to reduce accidental damage or activation of all life safety systems.
2. Contractors requiring a sprinkler or fire alarm system to be deactivated or put into test mode shall give a minimum of 48 hours' notice prior to commencement of their work.
3. Only contractors licensed by the State of Ohio Department of Commerce Division of State Fire Marshal for fire alarm and or sprinkler systems may initiate any modifications to the system, including but not limited to new installations, relocations, or removals of any and all devices.
4. Contractors will provide their own fire extinguishers and apply for a Hot Work Permit when appropriate.
5. Contractors and all Contractor employees must know how to call Tri-C Police in the event of an emergency. This information is provided during the Contractor Training session that is required before contractors are permitted to work on campus.
6. Contractors who need a Hot Work Permit must plan work accordingly and provide 48 hour notice to AC&SS before permit is issued.

First Aid Kits

Every contractor is required to have a first aid kit and contractor employees must be made aware of its location. All injuries requiring first aid assistance by local hospitals must be reported to the Tri-C Project Manager and EHS.

Hot Work Procedure - Tri-C Employees (See Appendix B for full procedures)

1. Obtain a Hot Work Permit from the Plant Manager.
2. The Plant Manager will consult with Applicant to verify as much detail as possible.
3. If fire alarms need to be taken out of a service or if any modification to the fire prevention systems is deemed necessary to safely perform hot work, contact the Executive Director, Emergency Manger, Fire and Safety Systems for assistance in this process and approval of fire watch measures. **The signature of authorized Plant Manager is required for permit to be issued.**
4. Employees' signature is verification that applicable precautions have been taken.

5. Departmental representatives reserve the right to inspect all job sites prior to issuing the permit. Fire Prevention Officer maintains original application and Applicant receives carbon copy.
6. Post and maintain permit(s) in work area throughout the duration of the hot work activity and restrict access to the area until work is complete and the area restored to its original condition.
7. Additional permits are required should work extend twenty-four (24) hours beyond the start time indicated on the permit. A permit may be issued for a period of time longer than twenty-four (24) hours for longer remodeling/repair jobs but no longer than one (1) week.

Hot Work Procedure – Outside Contracted Employee (See Appendix B for full procedures)

1. Obtain a blank Hot Work Permit from Tri-C's Plant Manager.
2. Fire Prevention Official will consult with Applicant to verify as much detail as possible.
3. If fire alarms systems need to be taken out of a service or if any modification to fire prevention systems is deemed necessary to safely perform hot work, contact the Executive Director, Emergency Manger, Fire and Safety Systems for assistance in this process and approval of fire watch measures. **The signature of authorized Plant Manager is required for permit to be issued.** (Permit is attached as Appendix C)
4. Employees' signature is verification that applicable precautions have been taken.
5. Departmental representatives reserve the right to inspect all job sites prior to issuing the permit
6. Fire Prevention Officer maintains original application and Applicant receives carbon copy.
7. Post and maintain permit in work area throughout the duration of the hot work activity and restrict access to the area until work is complete and the area is restored to its original condition.
8. Additional permits are required should work extend twenty-four (24) hours beyond the start time indicated on the permit. A permit may be issued for a period of time longer than twenty-four (24) hours for longer remodeling/repair jobs but no longer than one (1) week.
9. All work practices must conform to the American Welding Society and the instructions on the hot work permit.
10. Contractors must furnish their own 10 pound ABC rated fire extinguisher.

Keys

Tri-C has installed electronic key boxes to provide access to work areas. A *Key Box Access Request Form* must be signed by each contractor and your Tri-C Point-of-Contact, and approved by the Plant Manager for processing. Following approval, each contractor will be given a key code that will allow access to the key boxes needed for their work activities.

1. Do not loan, transfer, give possession of, misuse, modify, or alter Tri-C keys or the key ring.
2. Never allow others to use your PIN (code), nor is it permissible to use another's PIN/ code.

3. Upon noticing any damage to a key, key ring, or key box, the contractor must report it to Tri-C's Police Department immediately.
4. Contractors must have suitable key loss insurance to the value of \$250,000.00 and must show proof of said insurance coverage.
5. Never cause, allow, or contribute to the making of a copy/duplicate of any Tri-C key.
6. Loss of a key can be a significant financial responsibility for you, ranging from \$58 to \$500,000. The contractor (and his or her company) are responsible for costs associated with replacing all locks/keys affected by your loss.
7. Ask the value of your particular key(s) before you sign the *Key Box Access Request Form* to be aware of the liability.
8. Abide by the *Tri-C Access Control Regulations* described on the Tri-C website.
9. Prior to departure from the Tri-C campus, contractors must lock and verify all doors in areas they have worked in are locked and return all keys.
10. For any questions or concerns, please contact the Executive Director, Emergency Manger, Fire and Safety System.

Ladders

Ladders must conform to OSHA design requirements and be free of defects. Wooden ladders must not be painted. Ladders must be secured to keep them from shifting, slipping, being knocked over or blown over by climatic conditions. Wooden ladders should be used during electrical work or activities

Mechanical Equipment

Contractor must follow Tri-C's Mechanical Standards. All access/shutdowns of mechanical equipment must be coordinated with the Plant Manager. All work must be scheduled off hours unless permission has been otherwise granted. All equipment installed must be connected to the Building Automation System, and all electrical connections must comply with Tri-C's electrical safety requirements.

Mercury Spills

Every effort should be made to prevent all spills of metallic mercury. For mercury spills of any volume, all personnel shall leave the area and contact Tri-C Police Department to arrange for cleanup. The Contractor should also notify Campus Police when there has been a spill. The spill area must to roped, taped or barricaded to prevent accidental exposure. The contractor may be held responsible for the cost of cleanup and disposal.

Mercury Bulbs

All fluorescence light bulbs and high intensity mercury lights will be recycled by a licensed bulb recycler and removed off site by the contractor. Contractors should never leave waste behind. All broken bulbs will be handled as hazardous waste. For further information, contact EHS.

Overhead Work

Overhead work must not be performed above Tri-C's employees, students or the general public. Access to areas affected by overhead work shall be restricted.

Parking

All vehicles parked outside a fenced staging area on Tri-C's property must display a valid Tri-C Parking permit unless parked in a pay-per-hour space. If parked at a meter, the meter must be paid. Use of any parking facilities for construction related activity must be approved in advance by Tri-C Police Department. Tri-C Contractors are subject to Tri-C Parking Rules and Regulations. Violations of these rules are subject to issuance of parking citations and/or vehicle impound.

PCBs

Before starting work that involves PCBs or PCB containing material, the contractor must submit two copies of their procedures for handling, packaging, shipping and disposal of PCBs to the Project Manager and EHS. The contractor must also label all items and containers with the appropriate labels for removal from Tri-C property. The contractor must ensure that the manifest and land disposal requirements (LDR) are properly completed and signed in accordance with Federal and State regulations.

Environmental Health & Safety staff will review and sign all Hazardous Waste Manifests.

Personal Protective Equipment

In certain construction and maintenance operations personal protective equipment, including but not limited to safety glasses, goggles, respirators, hardhats and other protective clothing must be worn at all times. The type of PPE to be worn will be determined by the physical and chemical hazards of the contracted job. The contractor is responsible for the selection of PPE for their employees that is necessary to perform the job safely and correctly. All OSHA requirements for employee safety must be strictly adhered to.

Plumbing

All plumbing work and installations must comply with the requirements in the Ohio Plumbing Code with points of emphasis/special importance given to:

- Backflow protection must be provided for all domestic water installations that use water for a non-potable use. For Non-health (Non-Toxic - no chemicals added cross connections) an ASSE 1015 double-check backflow preventer shall be installed. This is defined as any point on a water supply system where a polluting substance may come in contact with potable water aesthetically affecting the taste, odor or appearance of the water, but not hazardous to health.
- For Health Hazard (Toxic - cross-connections defined as any point on a water supply system where a contaminating substance may come in contact with potable water creating an actual health hazard, causing sickness or death) an ASSE 1013 shall be installed. Irrigation systems must be protected from backflow by either a pressure vacuum breaker, or a reduced pressure backflow preventer. The device must be protected from freezing the temperature shall be maintained at 40 degrees Fahrenheit or higher inside the enclosure.
- When any mechanical or plumbing line penetrates any floor surface or a brick/block/concrete wall it must be sleeved. The sleeve shall be 2 times the diameter of the pipe penetrating the surface. Annular spaces between sleeves and pipes shall be filled or tightly caulked in an approved manner. Annular spaces between sleeves and pipes in fire-resistance rated assemblies shall be filled or tightly caulked in accordance with the Ohio Building Code.

- All storm drains shall receive water only from the following sources: rainwater; surface water; subsurface water; and similar liquid wastes. Drain disposal of chemicals is never permitted (i.e., cement; rubber/silicone based products; or paints, etc.). In addition, the maximum discharge temperature into any drain shall be 140 degrees Fahrenheit.

Refrigerants

Only certified technicians may perform work on equipment with refrigerants. The contractor must provide a copy of the technician's certifications prior to project start-up. The contractor must provide documentation to the Tri-C Project Manager indicating the date, type of service, amount and type of refrigerant used. All work must conform to the 40 CFR parts 82 for the protection of stratospheric ozone.

Roof Safety

At least two of the contractor's employees must be present during all work on campus roofs. All construction projects that have the potential for a fall hazard must comply with OSHA's 29 CFR 1926 sub part M, and 1910.23. It is the contractor's responsibility to train all of their employees on all relevant safety issues.

Safety Representative

It is the responsibility of all contractors to appoint a Safety Representative (holding at least a foreman position), to oversee all contract work at Tri-C. The foreman will perform daily job inspections and correct any unsafe conditions. It is the contractor's responsibility to train all of their employees on all relevant safety issues. The foreman must investigate any accident and report to the Tri-C Project Manager, Environmental Health & Safety and Risk Management.

Safety Rules and Procedures

To report a medical emergency:

- Call 216-987-4235 or dial 4911 to contact Tri-C Police Department.
- Police will provide or arrange required services, including Local Emergency Medical Services.

Security Requirements

The following items are not permitted on Tri-C's property: alcoholic beverages, illicit drugs, drug related paraphernalia, explosives, firearms and ammunition.

Smoking

Smoking, vaping and chewing tobacco in Tri-C buildings is prohibited. Tri-C is a tobacco-free campus. If you chose to smoke, you must do so outside in a location no closer than 20 feet from building doorways.

Solvents and Paints

The use of solvents, chemicals or paints requires prior approval of Tri-C. An SDS for each substance must be submitted to the Project Manager and EHS for review and approval. Adequate ventilation must be maintained at all times when paints, chemicals or solvents are used. Personnel must use proper respiratory protection and protective equipment when toxicity of the material requires such protection. Flammable solvents and materials must be

used with caution when possible sources of ignition exist.

When flammable solvents are being used, the contractor must post signs in the area to identify the hazard(s) present in the area. Flammable paint and solvents must be stored in an approved flammable liquids storage cabinet when storage is required. Corrosives (acid, bases) and flammables must never be stored together. If a cabinet is not available, all chemicals must be removed from Tri-C property by the end of the workday. The Contractor, not Tri-C, is responsible for the proper disposal of all waste chemicals.

Tar Pots

Tar pots are never permitted on roofs and each pot must have its own 10 pound ABC fire extinguisher. Tar pots must be kept a minimum of 10 feet from any building. Before using a tar pot, the contractor must have approval from the Project Manager.

Tri-C Telephones

Use of telephones is restricted to Tri-C business-related calls. See your foreman for phone locations.

Tools – Hand and Power

All hand tools and operations of hand tools shall conform to the OSHA construction standard 1926.302.

Vehicles

All contractor personnel shall park their vehicles in areas designated as appropriate by the Project Manager. Refer to the Parking section contained in this document.

Warning Signs

The contractor must provide all warning signs, barriers, barricades etc., whenever such notification is warranted. Where signs and barricades do not provide adequate protection, flagmen must be used.

Worksite Housekeeping

Waste material and debris must be removed from the job site at the end of each workday. Waste material and debris must never be thrown from any level to another. Material must be piled, stacked or otherwise stored to prevent tipping or collapse.

Overhead storage of tools, equipment etc., by the contractor is prohibited. No waste material will be left by the contractor in the space above suspended ceiling panels.

The foreman will perform daily job inspections and correct any unsafe conditions. It is the contractor's responsibility to train all of their employees on all relevant safety issues. The foreman must investigate any accident and report to the Tri-C Project Manager, Environmental Health & Safety and Risk Management. "Contractors should be aware of air intake without exposing residents to foul air, high levels of exhaust or particulate matter and potential problems".

The Contractor agrees to provide for a safe and healthy work environment, and to maintain compliance with all applicable provisions of the Occupational Safety and Health Administration's (OSHA) regulations as set forth in the Chapter 29 of Code of Federal Regulations pertaining to health and safety in the workplace (29 CFR 1910 and 1926). The Contractor also agrees to provide to Environmental Health and Safety evidence of applicable written programs prior to beginning work. These include but are not limited to Lockout/Tag Out (Control of Hazardous Energy), Confined Space, Hazard Communication, and Hearing Conservation.

The Contractor understands the signatures below represent an authorization to proceed with work space activities only, and do not, nor are they intended to, represent approval of plans, designs, methods, specifications and work practices of the Contractor.

As an agent of the above company, I have read and agree to the above outlined conditions in this book on behalf of the company and understand all employees and sub-contractors are beholden to it.

Company Name: _____

Contractor Authorized Rep. Signature:

Date:

Contractor name:

Registration #

Cuyahoga Community College Authorized Rep. Signature:

Name _____ Dept. _____

Date _____

