

IUOE Local 399 Educational Training Fund (ETF) SAFE WORK PRACTICES IN LAB



1. No short pants or cut-offs of any kind may be worn in the lab.
2. Safety glasses must be worn in the lab at all times when using gases or when soldering, and when other students are present.
3. Smoking is not allowed in the building.
4. No open-toed or open-heel footwear will be worn in the lab. Steel-toed shoes are recommended. High-heeled shoes are not allowed in the lab.
5. When lifting heavy objects, bend at the knees instead of bending at the back. Do not lift heavy objects by yourself. When lifting, use leg muscles.
6. Never swing a lit-up torch. The flame must always be between the work and your eye sight.
7. Power must always be turned off when working on the systems.
8. When systems are operating, attention must be given to your safety as well as the safety of others.
9. Remove all tools, supplies, instruments, etc., from system before turning the power "on". Double check around rotating components.
10. Note the location of the fire extinguishers.
11. Note the location of first-aid kits.
12. If you are not certain that what you are doing is a safe practice, **DO NOT DO IT!** Seek the advice and assistance of your instructor.
13. All injuries must be reported to the instructor immediately.
14. Student's personal property cannot be left in the lab when students are not in the lab. Local 399 ETF is not responsible for lost or stolen student property.
15. No food or beverages are allowed in the lab.

SAFE WORK PRACTICES IN LAB

(Continued)

16. All materials and tools used in the lab must be returned to their proper place in a clean and orderly manner.
17. Storage cabinets must be left clean and orderly.
18. After completion of a project, or at the end of a student's work schedule, his/her work area must be thoroughly cleaned and orderly with all tools and materials put in their proper place.
19. The wearing of rings, wristwatches, or any hanging jewelry while disassembling or assembling equipment is prohibited while working in the lab. Long hair is to be pulled back and loose clothing secured.
20. Never release compressed air toward another person.
21. Absolutely no horseplay will be allowed in the lab.
22. Lab projects must be completed during the designated lab period, unless other arrangements have been made with the instructor.
23. For everyone's safety, please clean up any oil spill immediately.
24. Do not inhale any refrigerant or chemical vapors, or any vapors from other chemicals.
25. Do not heat any pressurized system. The possibility of explosion exists. If not sure, ask your instructor before you begin your work.
26. Report and do not use any defective tool, equipment, or machinery.
27. An instructor must be present before students enter the air conditioning lab.

I DO HEREBY VERIFY THAT I _____ (*See Last Page*) _____
HAVE READ AND UNDERSTAND ALL OF THE ABOVE SAFE WORK PRACTICES, AND AGREE
TO FOLLOW THE RULES AT ALL TIMES. I FURTHER UNDERSTAND THAT I MAY BE
REMOVED FROM CLASS(ES) FOR VIOLATING THESE SAFETY REGULATIONS. VIOLATORS
MAY BE ALLOWED BACK TO CLASS AT THE DISCRETION OF LOCAL 399 EDUCATIONAL
TRAINING FUND (ETF). I UNDERSTAND I MAY BE HELD LIABLE FOR ANY DAMAGE OR
INJURY CAUSED DUE TO MY NEGLIGENCE OF THESE REGULATIONS.

SAFETY TIPS ON HANDLING REFRIGERANTS



The handling and storage of refrigerant is considered dangerous enough so that the Interstate Commerce Commission (ICC) prescribes how much refrigerant can be loaded into containers and also specified working and test pressures for these containers.

Please note these safety tips:

1. Wear safety goggles and gloves for personal protection whenever handling refrigerant cylinders, transferring or charging refrigerant.
2. Do not tamper with fusible plugs, relief valves or discs in cylinders. They are designed to release excessive internal pressure.
3. Never apply a direct flame to a refrigerant cylinder. This can cause chemical decomposition of the refrigerant, weaken cylinders and raise internal pressure beyond safe limits.
4. Never warm a cylinder above 125 F even using “accepted” and well-controlled heaters.
5. Always “crack” a service valve open gradually to assure positive control of gas flow.
6. Do not interchange refrigerants. Cylinders are color coded: **White – R-12; Green R-22; Red top or band – R-500; and Orchid – R-502**
7. Liquid refrigerant can cause “frost bite”, wash hands immediately upon contact. If eyes are contaminated, rinse completely and seek medical attention.
8. Refrigerant vapors are dense (heavy). In sufficient quantities and poorly ventilated spaces refrigerants can collect in low spots and could cause asphyxiation (lack of oxygen).
9. Before loosening any valves, bolts, screws, etc., holding parts in place, see that pressure or vacuum differences are relieved.

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SAFETY IN HANDLING ELECTRICAL CIRCUITS



1. Utilize Lock out / Tag out during installation or service operations. The switch should also be tagged to warn other people.
2. When electricity is passed through human flesh, it causes muscle spasm. If it passes across the heart or brain, it can be fatal. If enough current (amperes) is present, the electrical current can actively overheat the body, cause burns and a high temperature which may result in permanent body damage.
3. Always discharge a capacitor before touching its terminals. If it is charged, it may discharge 200 - 500 volts. (See instructor for proper discharge procedures).
4. If a person has been subjected to electrical shock, he/she should be made to lie down and be kept warm. If the person is unconscious call 911. If you have the training, apply CPR as necessary. Always call 911 if someone has suffered severe electrical shock.
5. Do not work on live equipment, only troubleshooting with electric meters is permitted.
6. When working in a damp or wet environment ... stand on a dry and insulated platform.
7. Always use the appropriate instruments to check a circuit to see if it is electrically charged before handling wires, terminals or parts.
8. Always use the correct size fuse in a circuit. An oversized fuse may cause fires and burn-out equipment.

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After reading and acknowledging the **SAFE WORK PRACTICES IN THE LAB DOCUMENT**, please print, sign and hand in this page only to the instructor no later than the second (2nd) class session.

I HAVE READ AND UNDERSTAND THE FOLLOWING HANDOUTS:

- 1. The Safe Work Practices in the Classroom and Labs**
- 2. The General Shop Safety Policies and Procedures**
- 3. Safety Tips on Handling Refrigerants**
- 4. Safety in Handling Electrical Circuits**

Print Name: _____

Sign Name: _____

Date: ____ / ____ / ____

Personal E-Mail: _____

Please note: Enter ONLY your personal e-mail address so that we may contact you. We cannot accept employer or building/facility e-mail addresses.