a. Fire protection (extinguisher) will be immediately available on all operation.

b. When operating in a hazardous area containing flammable liquids, gases, or solids, a fire watch will be posted and will have been trained in how to use all fire equipment.

c. All gas cylinders will be handled in accordance with Chapter 10.

d. Flash shields will be used wherever possible.

e. Eye protection will be used by welder/cutter and helper.

f. Frames of all Arc welding/cutting machines will be grounded and all cables will be completely insulated and flexible, capable of handling maximum current requirements.

g. Welding is prohibited in the following areas:

i. Areas not authorized by management.

ii. In sprinkled buildings while such protection is impaired

iii. In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dusts with air), or explosive atmospheres that may develop inside uncleansed or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dusts.

iv. In areas near the storage of large quantities of exposed, readily ignitable materials such as bulk sulfur, baled paper, or cotton.

h. Where practical, all combustibles shall be relocated at least 35 feet (10.7 m) from the work

[redacted]

covers or otherwise shielded with metal or asbestos guards or curtains.

i. Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.

j

vii. Goggles shall be ventilated to prevent fogging of the lenses as much as practicable. All glass for lenses shall be tempered, substantially free from striae, air bubbles, waves and other flaws. Except when a lens is ground to provide proper optical correction for defective vision, the front and rear surfaces of lenses and windows shall be smooth and parallel. Lenses shall bear some permanent distinctive marking by which the source and shade may be readily identified.

r. Protection from arc welding rays:

Where the work permits, the welder should be enclosed in an individual booth painted with a

i. Metal Ladders will not be used while welding or where they can come in contact with electrical conductors.

ii. In most cases wooden or fiberglass ladders are preferable to metal.

iii. Make sure the ladder is clean and dry.

iv. Carefully check the location of all overhead wires before using a ladder. Any power line can permit electricity to flow into a piece of metal or other object, such as a wet tree branch, that touches it. **Note:** Power lines and phone lines often appear similar. Assume all overhead wires carry electricity.

v. Lower the ladder when carrying or moving it, to avoid touching an overhead wire.

vi. Never work on a windy day; a gust of wind can cause the ladder to shift and touch an overhead wire.

vii. Never place a ladder where it could slide into an overhead line. Make sure the distance to the nearest overhead line is at least twice the length of the ladder.

viii.
ground is not level or is soft, put a flat piece of wood under one or both feet of the ladder to provide a solid, level base.

ix. If the ladder should start to fall into an overhead line, let it go. Never try to move it. Do not leave the ladder unattended so that no one will unknowingly touch it. Have someone call the power company and ask them to cut off electricity to the line before you move the ladder.

c. Wooden Ladders:

i. All wood parts shall be free from sharp edges and splinters; sound and free from accepted visual inspection from shake, wane, compression failures, decay, or other irregularities. Low density wood shall not be used.

ii. A uniform step spacing shall be employed which shall be not more than 12 inches. Steps shall be parallel and level when the ladder is in position for use. The use of ladders with broken or missing rungs or steps, broken or split side rails, or other faulty or defective construction is prohibited.

iii. The minimum width between side rails at the top, inside to inside, shall be not less than 11 1/2 inches. From top to bottom, the side rails shall spread at least 1 inch for each foot of length of stepladder.

iv. Ladder feet will be placed on a substantial base and areas around the top and bottom will be kept clear.

x. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height;

xi. Short ladders shall not be spliced together to provide long sections;

xii. Ladders made by fastening cleats across a single rail shall not be used;

xiii. Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes;

xix. Tops of the ordinary types of stepladders shall not be used as steps;

xx. No ladder should be used to gain access to a roof unless the top of the ladder shall extend at least 3 feet above the point of support, at eave, gutter, or roofline.

xxi. If a ladder is involved in any of the following, immediate inspection is necessary:

If ladders tip over, inspect ladder for side rails dents or bends, or excessively dented rungs; check all rung-to-side-rail connections; check hardware connections; check rivets for shear.
If ladders are exposed to oil and grease, equipment should be cleaned of oil, grease, or slippery materials. This can easily be done with a solvent or steam cleaning.
Ladders having defects are to be marked and taken out of service until repaired by either maintenance department or the manufacturer.

e. Ladder Use

i. A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical wall equal to one-fourth the working length of the ladder.

ii. Portable ladders are designed as a one-man working ladder based on a 200-pound load.

iii. The ladder base section must be placed with a secure footing.

iv. The top of the ladder must be placed with the two rails supported, unless equipped with a single supportheThe w n1 141.6tm49,/ 4DC q0.00000912 0 612 792 reW*nE4<(the)-1-792 reB

vii. Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.

3. Scaffolding: Use of scaffolding will comply with 29 CFR 1910. A detailed explanation can be found in the OSHA Safety and Health Standards, General Industry Section (available from EHS). The following are some of these requirements:

   a. Footing or anchorage for scaffolds will be sound, rigid and capable of carrying the maximum intended load without settling.

   b. Guard rails and toe-boards will be installed on all open sides and ends of platforms over 10 feet in height.

   c. Guard rails will be of 2" x 4" lumber (minimum) approximately 42" in height.

   d. Supports should be a minimum of 8 feet apart.

   e. Toe-boards will be a minimum of 1"x4" lumber.

   f. When work is required to be done or workers can pass under the scaffold, a wire mesh screen will be installed between the toe-boards and the guardrail or the area under the scaffold must be barricaded.

   g. Scaffolds and their components will be capable of supporting at least four times the intended load. Platform planks will be 2" x 10" minimum.

   h. All planked platforms will be overlapped 12" (minimum) or secured from movement.

   i. An access ladder or equivalent will be provided.

   j. Scaffold planks will extend over end supports between 6" and 12".

   k.

b. Standard Railing: A standard railing will consist of a top rail, an intermediate rail and a toe board.

i. Top Rail: the top rail will be of 2" x 4" (min.) lumber, 42" vertical height with vertical supports not more than 8 feet apart and must be capable of withstanding 200 lbs. Pressure with a minimum of deflection.

ii. Middle Rail: The intermediate rail must be made of at least 1" x 6" lumber.

iii. Bottom Rail (Toe-Board): the toe board must be 4" in height. It may be made of any substantial material.

6. Hot Work: The following procedures are to be used to control operations using flames or producing sparks, and to provide better protection against fire from welding and other hot work in all buildings at UNE. Exempted areas include the automotive shop, outdoors, maintenance shop, or boiler rooms. All hot work jobs require a fire watch:

   a. A Hot-Work Notification form will be used as a means to document hot work operations and to notify effected personnel, and the department of Safety and Security. This form must be completed prior to the start of work. A copy of the Notification form will be submitted to EHS and Security once work is completed.

   b. The employee and his assistant will check the work area for smoke and heat detectors. If smoke and/or heat detectors are present the employee will notify the Department of Safety and Security and inform them of the location of the work area and that there is a possibility of an alarm activation in that location.

   c. "Caution-Work Area" floor signs will be placed near the work area to inform the public of the hazard.

   d. The employee and assistant will check the work area to determine if the following

i. The employee or his assistant will remove all equipment and floor signs from the work area.

j. Fire extinguishers that were used will be returned to the stockroom for recharging or servicing.

k. The employee will turn in the Hot-Work Notification from at the end of the day to their supervisor, who will file all permits for record purposes.

7. Drilling and Blasting:

   a. Drilling:

      i. In no case will drilling be started in the bootleg of a previous hole.

      ii. The operator of a drilling machine will be supplied with and will use a hard hat, hearing protection and eye protection.

      iii. Dust controlling measures will be provided for both the operator and the immediate area.

      iv. All air lines between compressor and air drill will be equipped with safety fasteners at all couplings.

   b. Blasting: All blasting performed at UNE will be done by a licensed and certified contractor. All UNE employees will follow the written procedure of the contractor.

8. Trenching and Excavating: At times it is necessary to excavate or trench areas on campus. All trenching operations will be conducted by staff or contractors.

   a. Hazard Removal: All surface impediments that are located so as to create a hazard to employees will be removed or supported, as necessary, to protect employees.

   b. Underground Utilities: should estimated location impact underground utilities, effected

h. Water Accumulation: Employees will not work in excavations in which there is accumulated water or in which water is accumulating, unless steps have been taken to protect the employees from hazards posed by water accumulation.

i. Undermining: Sidewalks, pavements or structures will not be undermined unless a support system or other method of employee protection is provided.

j. Excavated Material: Excavated material must be placed at least two feet from the edge of the excavation.

k. Inspections: Daily inspections of excavations and the surrounding areas will be made by a competent person before the start of work for evidence of possible cave-ins, failure of the protection system, hazardous atmosphere or other conditions.

l. Barricading: All remotely located excavations will be barricaded. Upon completion of exploration or similar operations, the excavation will be back-filled immediately.

m. Soils Classifications:

i. Stable Rock: Solid blasted ledge

iilled immediately.

iii. Employees should be on the lookout for vehicles which may have lost traction and are slipping towards them and be aware that approaching vehicles may not be able to stop at crosswalks or traffic signals.

iv. The Facilities Department is responsible for snow removal and salting/sanding in winter storms.

c. Snow blower and Snow Removal Safety

i. Employees will be properly and thoroughly trained before attempting to do any work with the snow blower.

ii. Before the snowblower is operated, the area that is to be cleared will be inspected. Debris and other obstacles the snowblower might strike or throw, as that may cause injury or damage to the snowblower will be removed.

iii. The snowblower will be inspected before operation and any damage will be repaired and malfunctions corrected before operation. If an obstacle is hit while operating the snowblower, the engine will be stopped immediately, and checked for damage.

iv. The snowblower will not be used when visibility is poor. Under conditions of poor visibility, there is a greater risk of striking an obstacle or causing injury.

v. The snowblower will not be used to clear snow from a gravel road or driveway, as rocks may be picked up and ejected.

vi. The discharge chute will be adjusted to avoid hitting the operator, bystanders, windows, and other objects with ejected snow and employees should stay clear of the snow discharge chute while the engine is running.

vii. The snowblower will not be used to remove snow from roofs.

viii. The operator will understand the operations of all controls and be able to stop the machine in an emergency.

ix. No one will be authorized to operate the snowblower without proper instruction. If people suddenly appear in front of the snowblower while it is in operation, immediately release the auger and drive clutch levers to stop the snowblower and avoid possible injury from rotating auger blades.

x. If the snow discharge chute becomes clogged, the engine will be stopped and use a wooden stock to unclog it. Hands will never be put into the snow discharge chute while the engine is running; serious personal injury could result.

iv. Taking frequent short breaks in cool shade.

vii. Eating smaller meals before work activity.

viii. Avoiding caffeine and alcohol or large amounts of sugar.

ix. Working in the shade when possible.

x. Finding out from health care provider if medications employee may be taking

xi. Knowing that equipment such as respirators or work suits can increase heat stress.

xii. Using tick repellants, but not on the face.

xiii. Showering after work. Washing and drying work clothes at high temperature.

xiv. Examining the body for ticks after work and removing any attached ticks promptly and carefully with fine-tipped tweezers by gripping the tick.

x. Apply a strong sunscreen on all exposed areas of the body.

b. Heat Related Illness: Workers will be trained of the dangers of heat-related illnesses, what causes them and what procedures are in place to prevent them. Risk factors of heat related illness include but are not limited to high temperature and humidity, low fluid consumption, direct sun exposure (with no shade) or extreme heat, limited air movement (no breeze or wind), physical exertion, use of bulky protective clothing and equipment, poor physical condition or ongoing health problems, some medications, pregnancy, lack of previous exposure to hot workplaces, and previous heat-related illness.

If workers show any signs and symptoms of heat exhaustion, heat stroke, heat cramps, or heat rash, the employee should immediately discontinue their outdoor work and report back to their supervisor. The employee should seek medical attention if necessary. Such signs and symptoms may include: confusion, loss of consciousness, seizures, headaches, nausea, dizziness, weakness, irritability, thirst, heavy sweating, muscle pains, or skin rash.

3. Never paint outdoors in adverse weather conditions (thunderstorms, heavy rains, snow, etc).

4. All workers must don the appropriate PPE depending on the substance being used. This could include but is not limited to: respiratory protection, gloves, safety glasses, steel toed shoes, aprons, etc.

5. Signage will be posted in areas of high foot traffic to warn that p