

Virginia State University



Virginia State University

Safety Handbook

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This publication does not itself alter or determine compliance responsibilities, which are set forth in the Occupational Safety and Health Administration (OSHA) standards themselves and in the Occupational Safety and Health Act of 1970. Since the regulations, interpretations and enforcement policy may change over time, it is necessary to seek additional guidance on OSHA compliance requirements. Any and all deviations from the guidelines set forth in this Handbook shall have prior approval by the Virginia State University Department of Police and Public Safety (DPPS).

This Handbook serves as a guide for the minimum standards for VSU employees, contractors and vendors performing capital work, maintenance, repair, dismantlement, remediation or other activities that have the potential for an incident.

All individuals working at Virginia State University, (i.e. employees, contractors, vendors), are required to read the entire VSU Safety Handbook. After reading each the Handbook, all VSU employees, contractors and vendors shall sign the acknowledgement page at the back of the Handbook and returned that page to the Virginia State University DPPS prior to commencing work.

Contractors and vendors must also be familiar with their company's health, safety and environmental policies, procedures and guidelines.

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SAFETY HANDBOOK

Our Mission

We will achieve a World Class level of safety performance for VSU employees, contractors and vendors working at Virginia State University through increased safety awareness, communication of expectations, following work processes which reduce at-risk behaviors and ensuring the proper management of incidents.

Our Commitment

We recognize that outstanding safety performance is essential to the welfare of our university community, employees, contractors and vendors. We will continue to improve by making safety an integral part of all business activities.

Our Safety Principles

- We strive to prevent all incidents that may lead to injuries or illnesses.
- Safety performance is a responsibility of all employed by Virginia State University.
- Safety will be design into the work place.
- Individual behavior is the most important factor in preventing incidents.
- We expect and require every VSU employee, contractor and vendor to work safely.
- Working safely is good business.
- Safety is an integral part of our culture and total quality processes.
- Our safety process must react to all incidents, not just accidents.
- We will continually improve our safety process by auditing the process and correcting the root cause of deficiencies.
- We promote safety, both on and off the job.
- We prepare for emergencies.

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A. Introduction

- This handbook sets forth the safety requirements of the Virginia State University facilities.
- At Virginia State University, it is our policy to provide a safe and healthful place in which to work. It is everyone's obligation to work safely and to correct unsafe acts, practices and/or conditions for the protection of yourself and others.
- It is extremely important that you understand how your work is to be done in a safe manner. If you don't know, stop and ask before you begin work.
- All work must conform to VSU policies, local, state, and federal (OSHA) regulations. The information in this handbook is general in nature and is to be considered the minimum accepted practice.

B. General Information

Cardinal Safety Rules

Cardinal Safety Rules represent a written set of mandatory Safety rules that must absolutely not be violated. Failure to follow these rules will result in appropriate corrective action. Violations of Cardinal Safety Rules represent violations of procedures or rules whenever such violation presents a life-threatening situation including, but not limited to the following:

- Bypassing a safety system without proper authorization so as to present a life-threatening situation.
- Creating a life threatening situation resulting from violation of a safety permitting procedure such as, but not limited to, the following:
 - ◆ Violation of Zero Energy procedure.
 - ◆ Violation of Line breaking procedure.
 - ◆ Violation of Flame Permitting procedure.
 - ◆ Violation of Excavation procedure.
 - ◆ Violation of Confined Space Entry procedure.
- Smoking in an unauthorized area so as to present a life threatening situation from fire or explosion
- Leaving a recognized hazardous operation unattended so as to present a life threatening situation
- Horseplay
- Physical fighting or other workplace violence.
- Possession of and/or working under the influence of alcohol or unauthorized drugs (proof of Medical authorization required)
- Possession of unauthorized firearms or explosives on university property
- Falsifying company/VSU safety documentation records.
- Safety infractions not resulting in life or property threatening situations and those not covered above will be dealt with using appropriate corrective action.

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VSU Property Admittance and Identification

- VSU employees, contractors and vendors and non-employees permitted within or on Virginia State University property shall display approved, visible identification (ID badge with photograph) at all times. Contractors and Vendors Companies will provide their employees with ID badges.

Contractor and Construction Security

- Virginia State University Police may inspect contractors, construction employees and vendor's brief cases, bags, or other containers.
- Contractors, construction employees and vendors must limit their travel and access to only the areas of the property they have been authorized to be in. Contractors, construction employees and vendors must observe all physical security restrictions such as lock doors, restricted access notices and restricted parking areas. Virginia State University Police assistance may be obtained by calling 524-5360.
- Contractors, construction employees and vendors may use Virginia State University telephones only to report an emergency to the DPPS by calling 524-5411
- Jobsite security is contractor's responsibility

Approved VSU Employee, Contractors or Vendors Clothing

- Only properly dressed persons shall be admitted onto Virginia State University property. Persons having clothing with offensive slogans, without shoes, or without shirts will not be permitted to enter or work on VSU property. Short pants, short skirts or other clothing, which do not extend to the knee, must not be worn in labs, process areas, or construction areas. Job specific clothing requirements may apply. Pants must cover top of steel-toed leatherwork shoe and be in good condition. Shirts must have at least 4" of sleeve. Long sleeve shirts may be required at specific locations or for certain tasks.

Smoking

- Smoking is permitted in designated areas only. Smokers must discard smoking materials in approved containers.

Contractor and Vendor Vehicle Requirements

- Personal contractor and vendor employee's vehicles are not to be utilized to enter the Virginia State University work site. The VSU Project Manager or VSU Safety Manager must approve exceptions.
- Approved contractor or vendor cars and trucks must have the contractor or vendor's company name clearly identified on the vehicle doors. A properly completed Vehicle Pass must be displayed in plain sight on all vehicle rearview mirrors while on-site.
- Every vehicle operator must have a valid driver's permit to operate any vehicle on Virginia State University property.
- All operators authorized to operate vehicles on Virginia State University property must observe all posted driving instructions, warnings, and posted speed limits.
- No vehicle shall park on the grass, sidewalks, fire lane, loading dock or any unauthorized area.

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- The following additional vehicle rules are to be observed.
 - ◆ Vehicle operators and passengers are to wear seat belts.
 - ◆ Operator is not to allow riders on vehicles unless designed for safe riding.
 - ◆ Riding in rear of a truck is prohibited unless seating is provided with seat belts.
 - ◆ Operator is to obey Virginia State University posted speed limits and stop signs.
 - ◆ Operator is to shut off motors when refueling.
 - ◆ Limit a maximum of 3 people on any standard bench seat, and 1 per bucket seat.
 - ◆ Personnel are to mount and dismount the vehicle only when it is stopped.
 - ◆ Personnel are to keep arms, feet and bodies inside the vehicle.
 - ◆ Operator is to inspect the vehicle for safe operation each day before use.
 - ◆ Virginia State University Police may thoroughly inspect vehicles upon site entry and exit.

Pedestrians

- Pedestrians have the right of way. Pedestrians should use walkways where provided and should not take shortcuts through operating areas, buildings or other areas.
- Running is not permitted on site except in an extreme emergency.

Conduct

- The contractor is responsible for the conduct of their employees; this includes any form of harassment whistles, cat-calls, comments or gestures.
- Horseplay, fighting, gambling, sexual harassment and the possession or use of firearms, alcoholic beverages and illegal substances is strictly prohibited on Virginia State University property.

C. Emergency and Disaster Procedures

In the event there is an emergency, anyone can activate the alarm any time there is a:

- Serious injury or illness
- Fire
- Major spill or release
- When an alarm sounds, the following rules are in effect:
 - ◆ All flame or hot work permits for welding, cutting, and spark-producing equipment will be suspended until the all-clear signal is given.
 - ◆ Smoking is prohibited.
 - ◆ Everyone must evacuate the building.
 - ◆ No one is to re-enter the building until the Fire Department, VSU Safety or the VSU Police gives the all clear.

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D. Personal Protective Equipment (PPE)

Head Protection

- Contractors and vendors are required to wear approved hard hats. Hard hats must be in good condition and be worn with brim to the front. Hard hats must be worn at all times unless exempted by VSU Safety.

Eyes and Ears

- Each employee should know the location of the nearest eye wash/safety shower station in his or her area before starting work.
- Contractors and vendors are required to wear approved safety glasses with rigid side shields. Additional eye/face protection will be required when performing certain tasks (e.g.: welding, burning, grinding, chipping, sawing, drilling, handling chemicals or corrosive liquids, and pouring concrete or molten materials.) You must be aware of specific safety requirements.
- Approved hearing protection must be worn while working with or around high noise level producing tools, machines or equipment.

Fingers, Hand and Wrist

- Gloves suitable for the job being performed shall be worn unless the job cannot be done with gloves or wearing gloves increases the hazard.
- Tool holders should be used when driving stakes and wedges or when holding star drills, bull pins or similar tools.

Foot Protection

- Contractors and vendors must determine if hazards are present (or are likely to be present) that may require the use of safety footwear.
- Safety footwear for contractors and vendors must be in accordance with standards.
- Rubber boots with safety toe protection are required on jobs subject to chemically hazardous conditions.
- Foot protection should be worn when using jackhammers, tamps and similar equipment which has the potential for foot injury above the toes.

Respiratory

- Respirators used by contractors must meet OSHA standards.
- Respirators must be inspected regularly and stored in a dust-free container.
- Employees required to wear a respirator must have a physician's approval and be fit tested. Employees must be clean-shaven in the facial area to obtain an acceptable seal.
- Contractors and vendors must keep records of qualified users.

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Skin

- If the possibility of skin contact with chemicals exists, personal protective equipment required by the Material Safety Data Sheets (MSDS) shall be worn.

E. Hazard Communication / Right To Know

Upon beginning work at the Virginia State University each individual has the right to know information concerning the hazardous properties of any materials he/she may come in contact with. Training regarding potential hazards must be given to each individual and is to include, but not be limited to, the following:

- An explanation of the hazard communication standard and the training requirements.
- An explanation of the project hazard communication program and its location.
- Notification of the locations of the hazardous chemicals.
- A description of each site's labeling and hazard rating system.
- A description of the Material Safety Data Sheet (MSDS), their use and location. MSDS's are required to be on-site prior to the use of any chemical.

F. Permits

Certain types of work are not to be started until approval is given in the form of a signed permit. A written, properly authorized permit listed below may be required before you begin any activities in any production or operating area of the university.

- **Excavation Permit** – required prior to any excavation (trenching, scooping, tunneling, **and any hand or machine digging operations**) on University Grounds by University forces, construction contractors, utility companies, and any other organization, individual or group. The permit does not constitute approval of a project or the proposed construction, nor does it approve the reason for the proposed excavation. Project approval and other engineering reviews should have been completed in advance by the project manager or other University officials responsible for technical aspects relating to the proposed work.
- **Hot Work Permit** - required before any flame or spark-producing activity can begin in any production, operating, or some construction areas of each site. This includes, but is not limited to: welding, cutting, grinding or any work that produces spark.
Confined Space or Vessel Entry Permit - required before entering tanks, vessels, manholes or similar confined spaces that have been in service or connected to operating process equipment and may contain potentially hazardous atmospheric conditions.
- **Lockout / Tag out Permit** - required for the service and maintenance of machines and equipment in which the *unexpected* energizing or start-up of the machines or equipment, or release of stored energy could cause injury to workers

The site may have other permits that are required for other specific work procedures. Check with VSU Safety or the VSU Project Manager for more information about such permits.

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G. Fall Protection

- 100% fall protection (i.e. two lanyards when moving in certain areas) is required for all work above six (6) feet.
- Safety full body harnesses must be arranged so the d-ring is in the rear.
- Safety belts are not to be used for support or as a lineman's belt.
- Lanyards must be secured to an anchorage point overhead that can support 5,000 lbs. using as short a line as possible, not to exceed five (5) feet.
- The user prior to each use shall inspect all fall protection equipment.
- Lanyards may not be tied-off to any pipe/conduit less than 2" in diameter.
- Safety harnesses shall be worn and tied off when performing work on the following:
 - Sloped roofs
 - Flat roofs without handrails, if within 6 feet of the edge of the roof or opening
 - Any suspended platform or stage
 - All scaffolding six (6) feet above supporting work surface
 - When working on the sixth step or higher on a ladder
 - Ladders near the edge of roofs or floor openings
 - Any unguarded areas six (6) feet above any supporting work surface
 - An aerial lift.

H. Barricades, Signs, and Floor Openings

Anyone who makes a hole or opening is responsible for having it barricaded. Site supervisors needs to consider the impact of the project on surrounding vehicular and pedestrian traffic flows and take necessary steps (such as signage, barricades and re-striping) to ameliorate problems.

. Barricades and signs must be posted when working in or around the following:

- All man lifts and the immediate working area.
- In ceilings, pipe bridges, etc.
- Removing roofing panels, walls, etc.
- Swing radius of cranes and the area where the lift will be made and moved to.
- Any open excavation.
- Any confined space entry.

Types of Barricades

- Warning barricades call your attention to a hazard but offer no physical protection. Examples: yellow, red, blue synthetic tape on stands or posts, plastic, or wooden snow fence. Caution tape cannot be used for as a protective barrier.
- Protective barricades warn and provide physical protection and shall withstand 200 lbs. of force in any direction with minimal deflection (3"). Examples: wood post and rail, cable and wood post and chain.
- Plastic safety fence can be used for small projects. Portable chain link fence panels are to be used for larger projects. Contact the VSU Project Manager for the correct fence material.

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Guidelines

- * Barricades shall be 42 inches high and maintained square and level.
- * Barricades shall be erected before any work begins.
- * Blinking lights must be used on roadblocks after dark.
- * An access opening or gate should be provided where practical.
- * Barricades and signs shall be fully informative, legible, and visibly displayed.
- * Barricades and signs shall be removed when no longer needed.

Hole Covers

- Must be installed immediately.
- Hole covers or barricades are required at any floor elevation.
- Material and equipment must not be stored on a hole cover.
- All hole covers must have a sign reading: “WARNING - TEMPORARY COVER. DO NOT REMOVE UNLESS AUTHORIZED” or must be otherwise adequately identified. Hole covers must be secured to prevent movement. Covers must extend adequately beyond the edge of the hole (3”).
- 3/4” plywood will be used providing the opening is less than 18 inches. For any opening greater than 18 inches, 2-inch lumber or doubled 3/4 inch plywood is required.

I. Ladders and Scaffolds

- Inspect ladders before use - identify defective ladders with “Do Not Use” tag.
- Only a “Type I” ladder with a minimum rating of 250 lbs. is acceptable.
- Metal ladders are prohibited.
- Fall protection must be worn when working on the sixth step or higher.
- When ascending and descending a ladder, face the approved side of the ladder, use at least one hand to grasp the ladder, and do not carry tools or materials in your hands.
- Never work off a ladder where the midpoint of the body (i.e. belt buckle) must be extended beyond the side rails.

Straight or Extension Ladders

- Follow the 4-to-1 rule, when using an extension or straight ladder - position the base of the ladder one (1) foot from the supporting structure for every four (4) foot in height.
- Ladders 8’ or taller shall have a tie-off rope, non-skid safety feet and be tied-off.
- If a ladder is used to reach a higher platform, the top of the ladder must extend three (3) feet past the platform.
- Do not work off of the top three (3) rungs of any straight or extension ladder.

Step Ladders

- Stepladders shall be set with all four (4) feet level.
- Ladders used in traffic areas must be secured or barricaded to prevent displacement.
- Ladders 8’ or taller shall have a tie-off rope, non-skid safety feet and be tied-off.
- Never work off of the top two steps of a stepladder.
- Never stand or sit on top of stepladders.

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Scaffolding

- All scaffolds must conform to the OSHA Standard.
- All scaffolds are to be erected level - plumb on a firm base.
- All scaffolds must be equipped with access ladders that extend three (3) feet past the landing gate. At landings, 42" high handrails rigidly secure, mid-rails rigidly secure, completely decked with safety planking or manufactured scaffold decking and rigidly secured toe boards on all four sides.
- A competent person must determine the feasibility and safety of providing fall protection for employees erecting and dismantling scaffolds, and train those employees accordingly.
- All scaffolds shall have a tag attached, completed by the competent person, stating what type of fall arrest system is required.
- All personnel working on scaffolds must be trained by a qualified person in the subject matter to recognize the hazards associated with the type of scaffold being used and the nature of any hazards (i.e. electrical, fall, falling objects, etc.).
- Retraining must be provided where inadequacies in an affected employee's work practices involving scaffolds are observed.
- Safety harness and tie-off required when working from scaffolding over one buck high.
- Personnel shall not climb or do any rigging from a scaffold, handrail, mid-rail or braces.
- No one may alter any scaffold member by welding, burning, cutting, drilling or bending.
- Scaffolds shall be tied off or stabilized with outriggers when its height exceeds three times the smaller dimension of its base, but tie-offs must not exceed 26 feet vertically.
- Scaffolds must be tied off horizontally every 30 feet.
- No one shall ride on a rolling scaffold when it is being moved. All tools and materials shall be removed or secured to the decking before moving the scaffold.

J. Housekeeping

Good housekeeping plays a key role in preventing accidents and fires. Good housekeeping is emphasized as a vital safety measure.

- Keep everything in its proper place - store materials and equipment in a safe and orderly manner.
- Put trash, scrap materials and other waste in the proper containers.
- Clean up tools and work areas as your job progresses - do not wait until the end of the workday.
- Keep the floor of the work area clear of tools, cords, and scrap materials.
- Insure that worktables are occupied only by work at hand and tools required for work being done.
- All work areas are to be left in orderly and clean condition at the end of each workday.
- Keep cords and hoses at least seven (7) feet overhead over walkways and work areas or lay them flat outside of walkways.
- Maintain clear access to all work areas. Do not block fire extinguishers, emergency equipment, electrical boxes or panels, or other safety and fire equipment.

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K. Tools - Hand and Power

- Do not operate any tool without proper instruction.
- Only qualified persons are to use tools and equipment.
- Do not use any tool or equipment for any purpose other than that for which it was designed.
- Personal tools are subject to inspection at any time.
- It is your responsibility to inspect all tools prior to each use. Do not use a tool that is deemed defective. Report and tag all defective tools.
- Do not lift electrical tools by the cord.

Hand Tools

- Worn tools are dangerous! Replace or repair the tool.
- Every tool was designed to do a certain job. Use a tool for its intended use only.
- Tools subject to impact (chisels, star drills and caulking irons) tend to “mushroom.” Keep them dressed. Use tool holders.
- Don’t force tools beyond their capacity or use “cheaters” to increase their capacity.

Power Tools

- Material should be secured when power tools are applied to it.
- Each power tool should be examined for damaged parts, loose fittings, and frayed or cut electrical cords before use.
- Portable electrical equipment and tools shall be grounded unless “double insulated.” A ground fault circuit interrupter (G.F.C.I.) shall be used for working in damp areas when using permanent plant power or as otherwise required.
- Electrical cords shall be unplugged and airlines deactivated and bled down before adjusting, servicing, repairing, or changing bits and blades in electrical or pneumatic tools.
- Any pneumatic hoses shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure. All hose connections shall be properly secured.
- All tools shall be used with the correct shield, guard, or attachment recommended by the manufacturer.
- Only licensed and qualified personnel shall be allowed to operate power-actuated tools.
- Power tools should be unplugged when not in use.

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L. Mobile Equipment

- Anyone who operates any mobile equipment must be licensed to operate the equipment (cranes, man lifts, pick-ups, forklifts, etc.)
- All equipment will be inspected daily before use to insure it is in proper operating condition. If the equipment becomes defective in any way, notify your supervisor at once and place a “DANGER - DO NOT USE” tag on it.
- All equipment is to be supplied with seat belts, back-up alarm and fire extinguishers (back-up alarm is not required on pickup trucks.)
- Use of gas or diesel equipment inside operating building is prohibited unless approved by the VSU Safety Office.
- All sidewalks and grass shall be covered with minimum ½”plywood when equipment is driven across or parked on.

M. Cranes

- All operators must be certified and licensed to operate each make and model of crane.
- The operator is solely responsible for the safe operation of the crane.
- The operator has full responsibility for the safety of a lift and may not make a lift until safety is assured.
- A copy of the load chart, manufacturer’s operators’ manual and inspection record must be in the crane cab or on project site.
- All cranes and the immediate work area must be barricaded at all times.
- No load shall be swung over any persons.
- Outriggers must be leveled and fully extended when making a lift.
- No part of the crane, load, hoist (load and boom) lines, boom and tagline shall come within 10 feet of energized electrical lines.
- For pick and carry operations, consult the manufacturer’s operator manual.
- Riding on crane hooks and/or “headache” balls is prohibited.
- Operators are not permitted to leave the crane while holding a live load.
- The use of suspended personnel platforms (crane baskets) must meet all OSHA requirements. The use of a crane or derrick to hoist employees on a personnel platform is prohibited unless all requirements of are met. Companies plan and check list must be used.

N. Material Handling Equipment

- All material handling machines must have backup alarms, horns, rollover protection structures and seat belts when provided by manufacturer.
- A vehicle operator must be trained to operate each make and model of machine utilized.

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O. Personnel Lifting Equipment

- The operator must be trained to operate all personnel lifts.
- All employees are to have a safety belt or safety harness on and tied off when working out of: manual personnel lifts, power platform lifts, scissors lifts, high-reach lifts, etc.
- Tie-off shall be made to the lifting equipment.
- Personnel are not to get under lifts.
- When exiting the lifting equipment onto a proper working elevated platform, the employee must be tied off to that platform immediately prior to, and during, that exit.

P. Cars, Pickups, and Trucks

You must have a valid driver's permit to operate any vehicle on VSU property. You must obey the following rules:

- Wear your seat belt.
- Obey VSU Campus speed limits and stop signs.
- Motors must be shut-off when refueling.
- No more than three (3) people on a front bench seat, two (2) people if bucket seats.
- Mount and dismount the vehicle only when it is stopped.
- Keep arms, feet and bodies inside the vehicle.
- Inspect the vehicle each day before use.
- Riding in the rear of a truck is prohibited unless approved seating with seat belts has been provided.

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Q. Rigging

- All personnel who perform or assist in rigging operations shall have received appropriate training and are competent.
- Only ONE eye in a hook. Use a shackle to hold two (2) or more eyes.
- Tag lines are required to control lifted loads made by mechanical equipment. Never put hands on a load or wrap tag lines around your hands or body.
- Never raise a load over other people.
- Know the capacities of the rigging equipment and the weights of the loads.
- Never rig from any structural member until you are sure it will support the load.
- Never use plate grips, tongs, pipe clamps, etc. as substitutes for beam clamps.
- Two slings will be used unless impractical. If one sling is used, double wrapping is required.
- Continuous synthetic slings may be used only when heat or chemicals are not a factor, and where load permits.
- Flat nylon straps should not be used for erecting steel. Wide nylon straps may be used for lifting tube bundles, fiberglass ducts or other material, which could be damaged by a metal sling. The use of flat nylon strap with any visible tear or defect is strictly prohibited.
- Steel slings should be used where heat or chemicals are a potential factor. The use of steel slings with damaged strands or other defect is strictly prohibited.
- The use of a come-a-longs with cracked or damaged handles is strictly prohibited.
- Chain falls and come-a-longs must have OSHA approved safety spring return latches on all hooks.
- The contractor will keep daily, weekly, and monthly inspection records.

R. Chain Falls and Hoists

- A chain hoist must be used within its rated capacity, marked on the equipment.
- Do not leave an unsecured and unattended load hanging on a hoist or chain fall.
- Do not stand or have any part of the body below a load suspended on a chain hoist.
- Do not wrap the load chain around the load to be lifted.
- Use of “cheater bars” is strictly prohibited.
- Use a shackle to connect straps to a hook.

S. Fire Protection and Prevention

- Be sure to locate the nearest fire extinguishers in your work area before starting work.
- All contractors and vendors must be trained to use portable fire extinguishers.
- All fire hydrants, fire extinguishers, fire blankets, etc. are to be clearly marked and not be obstructed.
- Combustible materials shall be kept away from steam lines, radiators, heaters, hot process and service lines.
- For any job requiring hot work or open flame or welding, a fire extinguisher must be within 20 feet of where the work is taking place. The fire extinguishers are to be checked daily before starting work. VSU fire extinguishers shall not be used.

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- Portable power equipment must not be refueled while running or when hot. Attach the ground wire before refueling.
- Store flammables in properly labeled metal/plastic type containers and in designated areas.
- Fire blankets must be used to protect equipment, control panels, instrumentation, etc. when welding, cutting, burning, or grinding.
- “Borrowing” of VSU’s fire extinguishers is not permitted.
- If the VSU’s sprinkler or smoke and fire detection and alarm system is impaired, a “Fire Watch” condition will be imposed. For any job requiring hot work or open flame or welding, a standby observer with a fire extinguisher must be within 20 feet of where the work is taking place. The fire extinguishers shall be checked daily before starting work.

T. Material Handling / Stability Control

Proper material handling and stability control insures that personnel, material, and equipment are safe from unexpected movement such as falling, slipping, rolling, tripping, or any other uncontrolled motion.

- Clean up ragged metal edges.
- Pull all protruding nails and wires or bend them flush.
- Check all material and equipment to prevent rolling.
- Tie down all light, large-surface-area material that might be moved by the wind.
- Put absorbent on all grease and oil spills immediately and clean them up.
- Salt or sand icy walk areas immediately.
- Use proper lifting techniques when moving material by hand.
- Know the weight of the object to be handled.
- Protect the area around and below you.

U. Welding and Burning

General

- Before beginning any flame or spark producing operations on VSU’s property, check with the Safety Office about any permits that may be required. Follow the requirements of the permit procedure.
- Keep welding leads and burning hoses clear of passageways.
- Each welder is responsible for containing sparks and slag and/or removing combustibles to prevent fires. The welder is also responsible for making sure there is a fire watch and an adequate fire extinguisher for the duration of the operation.
- Provide adequate screens to protect vision of general public.

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Welding – Electric

- All work must have a separate and adequate ground.
- Welding rods are not to be left in the electrode holder when not in use. Stub ends are to be put in proper containers - not on the floor.
- All weld arcs shall be shielded.
- All welding machines are to be shut off when not in use.
- The welder must wear hard hats with the brim to the front during welding operations.
- An approved welding shield must be worn.
- Powered welding machines should be operated in well-ventilated area.

Burning – Gas

- Trained and experienced personnel shall only do the operation of oxygen and fuel gas burning equipment.
- Only an approved spark lighter should be used to light a burning torch. Do not use matches, cigarettes, lighters or hot work.
- Always clean burning tips with the proper type cleaner.
- All burning rigs must be broken down at the end of the shift with regulators removed and caps screwed down hand tight.
- Approved burning goggles must be worn.
- Keep oil and grease away from oxygen regulators, hoses and fittings. Do not store wrenches, dies, cutters, or other grease covered tools in the same compartment with oxygen equipment.
- Compressed gas bottles shall be kept in bottle carts or secured in an upright position. They must be transported and stored in a secured, upright position with protective caps in place.
- Oxygen and acetylene compressed gas bottles should not be stored together. They must be stored a minimum of 20' apart or have a 5 feet high, 30 minute rated fireproof wall between the two bottles.
- All gauges, hoses, and torches should be inspected on a regular basis. A back flow preventer is required on all regulators.
- When in use, place cylinders and hoses where they are not exposed to sparks and slag from the burning operation.
- Handle cylinders with care.
- Lift to upper levels with approved carts only.
- Do not strike an arc on cylinders.
- Do not use cylinders as rollers.
- Do not lift with slings or by the protective cap.

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Protective Clothing

- Only cotton, woolen, leather or special fire retardant synthetic clothing should be worn when burning or welding. Synthetics are very flammable and melt and cause more serious burns when exposed to flames and high temperatures.

V. Steel Erection

General

- 100% tie-off is required at ALL times
- Containers shall be provided for storing or carrying rivets, bolts and drift pins, and secured against accidental displacement when aloft.
- A load shall not be released from the hoisting line until the members are secured with not less than two bolts, or equivalent at each connection and drawn up wrench tight.
- Tag lines are required for controlling loads.
- When bolts, drift pins or rivet heads are being knocked out/off, means shall be provided to keep them from falling.
- Impact wrenches shall be provided with a locking device for retaining the socket.

W. Accident / Incident Investigation

- VSU DPPS shall be immediately notified upon knowledge of any and all injuries or incidents by calling **524-5411**.
- A VSU Incident Investigation Report shall be completed on *all **injuries or incidents***. This includes all injuries (medical treatment and first aid cases), equipment or property damage, environmental excursions, and near-miss incidents. The report shall be completed by an investigation team headed by the project manager / engineer, and VSU Safety immediately upon knowledge of the incident. All sections of the report are to be completed, signed and dated. Full cooperation from all is expected.

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X. OSHA Reference Guide

<u>Subject</u>	<u>Reference</u>
Barricades	Subpart G - 1926.202 Barricades
Cars, Pickups & Trucks	Subpart O - 1926.601 Motor Vehicles
Chain Falls	Subpart H - 1926.251 Rigging Equip. for Mat. Handling
Compressed Gases	Subpart H - 1910.101 General Requirements
Concrete & Masonry	Subpart Q - 1926.700 Scope, Application & Requirements
Confined Space Entry	Subpart J - 1910.146 Permit-Required Confined Spaces
Cranes	Subpart N - 1926.550 Cranes & Derricks Subpart N - 1910.179 Overhead & Gantry Cranes
Demolition	Subpart T - 1926.850 Preparatory Operations
Egress	Subpart C - 1926.34 Means of Egress Subpart E - 1910.35 Definitions
Electrical	Subpart K - 1926.400 Introduction Subpart S - 1910.301 Introduction
Emergency Procedures	Subpart C - 1926.35 Employee Emergency Action Plans Subpart D - 1910.38 Employee Emergency Plans
Excavations	Subpart P - 1926.650 Scope, Application & Definitions
Eye Protection	Subpart E - 1926.102 Eye and Face Protection Subpart I - 1910.133 Eye and Face Protection
Face Protection	Subpart E - 1926.102 Eye and Face Protection Subpart I - 1910.133 Eye and Face Protection
Fall Protection	Subpart E - 1926.104 Safety Belts, Lifelines & Lanyards Subpart M - 1926.500 Scope, Application & Definitions
Fire Protection	Subpart C - 1926.24 Fire Protection and Prevention Subpart F - 1926.150 Fire Protection Subpart L - 1910.155 Scope, Application & Definitions
First Aid	Subpart C - 1926.23 First Aid and Medical Attention Subpart D - 1926.50 Medical Services & First Aid Subpart K - 1910.151 Medical Services & First Aid
Floor Openings	Subpart M - 1926.502 Fall Protection Criteria & Practices Subpart D - 1910.23 Guarding Floor and Wall Openings
Foot Protection	Subpart E - 1926.96 Occupational Foot Protection Subpart I - 1910.136 Foot Protection
Hand Protection	Subpart I - 1910.138 Hand Protection
Hazard Communication	Subpart D - 1926.59 Hazard Communication
Hazardous Waste	Subpart D - 1926.65 Operations & Emergency Response Subpart H - 1910.120 Operations & Emerg. Response
Head Protection	Subpart E - 1926.100 Head Protection Subpart I - 1910.135 Head Protection
Hearing Protection	Subpart E - 1926.101 Hearing Protection Subpart G - 1910.95 Occupational Noise Exposure

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<u>Subject</u>	<u>Reference</u>
Hoists	Subpart N - 1926.552 Mat. Hoist, Personnel Hoist & Elev.
Housekeeping	Subpart C - 1926.25 Housekeeping
Illumination	Subpart D - 1926.56 Illumination
Incident Investigation	Per Site Specifics. Check with Your Site Contact.
Ladders	Subpart X - 1926.1053 Ladders Subpart D - 1910.22 General Requirements
Lockout/Tag out	Subpart K - 1926.417 Lockout and Tagging of Circuits Subpart J - 1910.147 Control of Hazardous Energy
Material Handling Equip.	Subpart O - 1926.602 Material Handling Equipment
Materials Handling	Subpart H - 1926.250 General Requirements for Storage
Mobile Equipment	Subpart O - 1926.600 Equipment
Permits	Per Site Specifics. Check With Your Site Contact.
Personal Protective Equip.	Subpart C - 1926.28 Personal Protective Equipment Subpart E - 1926.95 Criteria for Personal Protect. Equip. Subpart I - 1910.32 General Requirements
Personnel Lifting Equipment	Subpart L - 1926.453 Aerial Lifts Subpart N - 1926.552 Personnel Hoist & Elevators Subpart F - 1910.68 Man lifts
Respiratory Protection	Subpart E - 1926.103 Respiratory Protection Subpart I - 1910.134 Respiratory Protection
Rigging	Subpart H - 1926.251 Rigging Material Subpart N - 1910.184 Slings
Sanitation	Subpart D - 1926.51 Sanitation Subpart J - 1910.141 Sanitation
Scaffolds	Subpart L - 1926.45 Scope, Application & Definitions Subpart D - 1910.28 Safety Requirements for Scaffolding
Signaling	Subpart G - 1926.201 Signaling
Signs	Subpart G - 1926.200 Accident Prevention Signs & Tags Subpart J - 1910.145 Specifications for Signs & Tags
Stairways	Subpart X - 1926.1050 Scope, Application & Definitions
Steel Erection	Subpart R - 1926 - Steel Erection
Tools - Hand & Power	Subpart I - 1926.300 General Requirements Subpart P - 1910.241 Definitions
Training & Orientation	Subpart C - 1926.21 Safety Training and Education Per Site Specifics. Check With Your Site Contact.
Ventilation	Subpart J - 1926.353 Ventilation and Protection Subpart G - 1910.94 Ventilation
Welding & Burning	Subpart J - 1926 - Welding & Cutting Subpart Q - 1910.251 Definitions

