

LC State Physical Plant

OPERATIONS AND MAINTENANCE PROCEDURE
MANUAL

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Introduction

This manual outlines guidelines and procedures associated with the Physical Plant (PP) Operations and Maintenance, providing information specific to Facilities and Campus Health and Safety. PP employees are expected to abide by the operations and maintenance procedures herein. PP personnel are expected to abide by the applicable policies (e.g. Section 4 Administrative Financial Policies, including the Purchasing Policy [Section 4.111], the Budget Policy [Section 4.125], and the Purchasing Procurement Card P Card Policy [Section 4.121]). Failure to do so may result in disciplinary action up to and including dismissal.

Operations and Facilities

1. Facility Inspection Schedule
 - a. The Idaho Division of Building Safety (DBS) performs an annual building inspection of LC State buildings. Those inspections are generally performed near the beginning of each calendar year, as schedule by DBS. PP personnel will escort the inspector throughout the campus. Upon receiving the DBS Findings report, PP will respond in writing within 10 business days, addressing the findings and laying out a path to compliance.
 - b. Facility inspections inform deferred maintenance estimates and institutional state-level requests for deferred maintenance analysis and identified needs support.
2. Standard Maintenance and Repair
 - a. The PP utilizes a work order management and a Planned Maintenance scheduling solution accomplished through the School Dude applications. The Planned Maintenance scheduling solution manages the maintenance schedule for campus assets and major systems, including HVAC, electrical, fire protection, generators, kitchen equipment, and plumbing.
 - b. Roof inspections and cleaning are performed seasonally (minimum of 4 times per year) by PP personnel and reminders are managed through the Planned Maintenance scheduling solution in the School Dude application.
 - c. Walk-about inspections are performed periodically at the discretion of the PP Director, for the purpose of assessing the physical condition of buildings, including the exteriors, roofs, windows, entries, interior finishes and overall suitability for the intended use of the building.
 - d. Maintenance/Repair reviews inform deferred maintenance estimates and institutional state-level requests for deferred maintenance analysis and identified needs support.
3. Efficiencies Management
 - a. PP and the Controller's Office captures efficiencies data using internal spreadsheets. These data are reviewed monthly and annually, as appropriate for the type of data (e.g., utilities data may be reviewed monthly, whereas LED efficiencies may be more meaningfully reflected through bi-annual or annual review).
 - b. The Controller's Office reviews utility-related billings monthly and PP is alerted to anomalies for review.
 - c. The City of Lewiston alerts PP to flow-rate and/or usage anomalies on an as-needed basis.
4. Inventory Management
 - a. The PP follows the policies and procedures for inventory control, asset identification, and disposal, as defined by the Purchasing Policy (Section 4.111) and the Controller's Office

guidelines published at <http://www.lcsc.edu/controllers-office/>. Fixed assets permanently removed from the PP inventory by disposal, donation or, sale will adhere to the guidelines published at: <https://www.lcsc.edu/controllers-office/general-accounting/fixed-assets/>.

- b. Physical Access Restrictions
 - i. Physical access to the PP warehouses, internal storage, and service yard is restricted by a fence and locked gate, which is only accessible to PP and Security personnel. The PP gate is locked during non-business hours.
 - c. PP Warehouse Receiving
 - i. The PP receiving process for incoming inventory includes an inspection of the goods received, review and reconciliation of quantities to the packing slip, and inspection for damages.
 - d. Custodial Supplies
 - i. Consumable assets used in custodial service are housed in a PP warehouse and are organized, monitored, and periodically inventoried. These assets are distributed, upon staff request, by the custodial foreman or leads. A record of consumable assets removed from the PP warehouse is documented and retained.
 - e. Small and Attractive Asset Inventory Management
 - i. The PP has implemented a Small and Attractive Asset Inventory Management procedure, for items with a unit cost between \$300 and \$1,999 and a life span greater than one year.
 - ii. PP Administrative personnel will receive incoming inventory and identify items that fall within the small and attractive cost range and are characterized by their portability and desirability.
 - iii. A record will be created for each item in the PP Small and Attractive Asset Tracker.
 1. When available, the following data points will be recorded for each item: a unique identifier, make, model/serial #, location, and owner.
 2. A record of Small and Attractive assets permanently removed from the PP Inventory will be documented and retained.
 3. See Appendix A: Asset Tracker.
 - iv. Reporting: Inventory reporting will be generated each spring (March-June), provided to the PP Director, and retained in accordance with Record Retention Policy, published at: <https://www.lcsc.edu/media/5542889/4103-records-retention.pdf>
5. Contractor Management
 - a. The PP complies with the State of Idaho and Department of Public Works regulations for contractor engagement and contracting, published at: https://dpw.idaho.gov/design_professional/.
 6. Vendor Management
 - a. The PP complies with the State of Idaho regulations, published at <https://purchasing.idaho.gov/governing-laws-and-policies/>, and LCSC Purchasing Policy (Section 4.111) and Contract Management Policy (Section 4.131).
 7. Project Management
 - a. The PP complies with the recommendations and controls set out by the State of Idaho Department of Public works, published at: https://dpw.idaho.gov/design_professional/.
 - b. Building Code Compliance

- i. All new construction on LC State campus and capital projects are subject to the accepted and published Building Codes as adopted by the State of Idaho Department of Building Safety, published at <https://dbs.idaho.gov/rules/current.html> and the Office of the State Fire Marshall, published at <https://doi.idaho.gov/sfm/Prevention/Statutes>.
- c. LC State facilities are subject to annual inspections as performed by the State Safety inspector, Department of Building Safety and State Fire Marshalls office.

Campus Health and Safety

1. Emergency Protocols: The PP follows the procedures outlined in the Campus Emergency Response Plan, published at http://www.lcsc.edu/media/5603338/Emergency_Response-Procedure_Public.pdf.
2. Employee Safety – Personal Protective Equipment (PPE) Procedure: The purpose of the PPE Procedure is to protect LC State employees from exposure to workplace hazards and the risk of injury through the use of PPE. PPE is not a substitute for more effective control methods, and its use will be considered only when other means of protection against hazards are not adequate or feasible. PPE will be provided, used, and maintained when it has been determined that its use is required to ensure the safety and health of employees, and that such use will lessen the likelihood of occupational injury and/or illness. This section addresses general PPE requirements, including eye and face, head, foot and leg, hand and arm, and body (torso) protection. Additional PPE may be utilized based on the nature of the specific task to be performed. LC State Personal Protective Equipment Policies includes: Responsibilities of directors, foremen, and employees, Hazard assessment and PPE selection, Employee training, and Cleaning and Maintenance of PPE.
 - a. Responsibilities
 - i. The PP Director or designee is responsible for the development, implementation, and administration LC State PPE policies. This involves:
 1. Conducting workplace hazard assessments to determine the presence of hazards that necessitate the use of PPE.
 2. Selecting and purchasing PPE.
 3. Reviewing, updating, and conducting PPE hazard assessments whenever: a job changes, new equipment is used, there has been an accident, a foreman or employee requests it, or at least every year.
 4. Maintaining records on PPE assignments and training.
 5. Providing training, guidance, and assistance to foremen and employees on the proper use, care, and cleaning of approved PPE.
 6. Periodically reevaluating the suitability of previously selected PPE.
 7. Reviewing, updating, and evaluating the overall effectiveness of PPE use, training, and policies.
 - ii. Foremen have the primary responsibility for implementing and enforcing PPE use and policies in their work area. This involves:
 1. Providing appropriate PPE and making it available to employees.
 2. Ensuring that employees are trained on the proper use, care, and cleaning of PPE.
 3. Ensuring that employees properly use and maintain their PPE, and follow LC State PPE policies and rules.
 4. Notifying PP management when new hazards are introduced or when processes are added or changed.

5. Ensuring that defective or damaged PPE is immediately disposed of and replaced.
- iii. Employees: The PPE user is responsible for following the requirements of the PPE policies. This involves:
 1. Properly wearing PPE as required.
 2. Attending required training sessions.
 3. Properly caring for, cleaning, maintaining, and inspecting PPE as required.
 4. Following LC State PPE policies and rules.
 5. Informing the foreman of the need to repair or replace PPE.
 6. Employees who repeatedly disregard and do not follow PPE policies and rules will be subject to disciplinary action.

b. Procedures

- i. Selection of PPE - Once the hazards of a workplace have been identified, the PP Director or designee will determine if the hazards can first be eliminated or reduced by methods other than PPE, (e.g., methods that do not rely on employee behavior, such as engineering controls).
- ii. If such methods are not adequate or feasible, then the PP Director or designee will determine the suitability of the PPE presently available; and as necessary, will select new or additional equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards. Care will be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards will be recommended for purchase.
- iii. All personal protective clothing and equipment will be of safe design and construction for the work to be performed, and will be maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that meet National Institute for Occupational Safety and Health (NIOSH) or American National Standards Institute (ANSI) standards will be procured or accepted for use. Newly purchased PPE must conform to the updated ANSI standards which have been incorporated into the PPE regulations, as follows:
 1. Eye and Face Protection ANSI Z87.1-1989
 2. Head Protection ANSI Z89.1-1986
 3. Foot Protection: Foot protection may be required for full- and part-time employees, dependent on job description and at the discretion of the PP Director. If required, foot protection must comply with OSHA Regulations identified in 1910.136(b) and/or be classified as slip resistant. If foot protection is required, an annual foot protection stipend of \$75 will be provided, typically within the first two weeks of October. If employment is terminated (voluntary or involuntarily) within 6 months of receiving the stipend, the employee is required to pay back 50% of the stipend.
 4. Hand Protection: There are no ANSI standards for gloves, however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed.
- iv. Affected employees whose jobs require the use of PPE will be informed of the PPE selection and will be provided PPE by LC State at no charge. Careful

- consideration will be given to the comfort and proper fit of PPE in order to ensure that the right size is selected and that it will be used.
- c. Training: Employees required to wear PPE will receive training in the proper use and care of PPE before being allowed to perform work requiring its use. Periodic retraining will be offered to PPE users as needed. The training will include, but not necessarily be limited to, the following subjects: When PPE is necessary to be worn, what PPE is necessary, how to properly don, doff, adjust, and wear PPE, the limitations of the PPE, and the proper care, maintenance, useful life, and disposal of the PPE. After the training, employees will demonstrate that they understand how to use PPE properly, or they will be retrained. Training of each employee will follow the steps outlined in OSHA's PPE Assessment training checklists, published at: https://www.osha.gov/dte/library/ppe_assessment/ppe_assessment.html. Completed Checklists for Training Employees on PPE use and care will be maintained by the PP for a minimum of 3 years and located in the PP Office.
 - d. Retraining: The need for retraining will be indicated when an employee's work habits or knowledge indicates a lack of the necessary understanding, motivation, and skills required to use the PPE (i.e., uses PPE improperly), new equipment is installed, changes in the workplace make previous training out-of-date, or changes in the types of PPE to be used make previous training out-of-date.
 - e. Cleaning and Maintenance of PPE: It is important that PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Employees must inspect, clean, and maintain their PPE according to the manufacturers' instructions before and after each use. Foremen are responsible for ensuring that users properly maintain their PPE in good condition.
 - i. PPE must not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible.
 - ii. If employees provide their own PPE, make sure that it is adequate for the workplace hazards, and that it is maintained in a clean and reliable condition.
 - iii. Defective or damaged PPE will not be used and will be immediately discarded and replaced. NOTE: Defective equipment can be worse than no PPE at all. It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.
 - f. Safety Disciplinary Policy: In order to maintain a safe and healthful workplace, employees must be cognizant and aware of institution, State, and Federal safety and health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations. The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.
 - i. A first-time violation will be discussed orally between the foreman and the employee. This will be done as soon as possible.
 - ii. A second-time offense will be followed-up in written form and may be considered in the employee's annual performance review. A copy of this written documentation will be entered into the employee's personnel file.
 - iii. A third-time violation can result in disciplinary action, depending on the seriousness of the violation. NOTE: Repeated violations may be subject to disciplinary action up to and including dismissal.
 - g. See Appendices for PPE Procedures regarding job-specific duties (i.e., Lockout/Tagout, Forklift Truck, Aerial and Scissor Lifts, and Hot-Work).

3. Hazardous Materials: LC State is committed to providing a safe and healthy work environment. The College's Hazardous Materials policy can be found at: <https://www.lcsc.edu/policies/> and is listed as policy #4.200. PP Personnel shall adhere to this policy, and to the following guidelines and procedures for proper handling, storage, disposal and reporting of hazardous materials.
 - a. Handling Hazardous Materials
 - i. PP employees who handle hazardous materials are required to review the applicable Material Safety Data Sheet (MSDS) prior to handling.
 - b. Storage of Hazardous Materials
 - i. PP stores hazardous material in labeled, proper containers. A proper container is one that has retained its integrity and can be sealed tightly. Containers should be resistant to chemical degradation and corrosion. Liquids must be stored in containers designed for liquids, not solids.
 - ii. Used Oil: PP collects used oil in drums stored in a location protected from the weather. Drums must be labeled "USED OIL". No other materials will be mixed with the used oil. Containers must be in good condition and not leaking.
 - iii. Lamps: PP uses Toxicity Characteristic Leaching Procedure (TCLP) Compliant lamps, which do not meet the definition of a hazardous waste, and therefore are not a universal waste. Used bulbs are stored in boxes or containers prior to disposal.
 - iv. Batteries: Used batteries are segregated and stored by type.
 1. Lead-Acid batteries that are leaking must be stored in a plastic container, such as a tub or 5-gallon pail.
 2. Lithium, Lithium ion, Ni-Cad, mercuric oxide, silver oxide, button cell batteries, and other rechargeable type batteries are considered universal waste. These should be stored by taping the electrodes or putting each battery in a re-sealable plastic bag, then placing in a box or container. The box or container should be marked as "Universal Waste – Batteries", with the date the first battery was placed in it. If a universal waste battery is leaking, it is to be placed in a plastic container.
 3. Alkaline batteries can be disposed of in normal trash receptacles.
 - v. Pesticides: Pesticides should be stored in structurally sound containers that can securely close. If the container is damaged, it should be placed in a heavy plastic bag or tub and securely closed. PP does not utilize restricted use pesticides.
 - c. Disposal of Hazardous Materials
 - i. Disposal Services: The PP will send out a Hazardous Material Collection reminder each spring. Departments/Divisions/Units that generate hazardous materials must notify the PP in writing of their inventories by June 1st. The PP will arrange for disposal services of those materials by June 30th of each year.
 - ii. Used Oil: PP will coordinate with the LC State Technical and Industrial Division to arrange for used oil collection service annually, or more frequently if necessary.
 - iii. Lamps: TCLP Compliant lamps are disposed of in the normal trash.
 - iv. Batteries: PP will dispose of used batteries by taking them to a battery recycling facility on an annual basis.
 - v. Pesticides: PP will dispose of unusable pesticides through the Idaho State Department of Agriculture (ISDA) Pesticide Disposal Program. Collection sites and dates are published at: <https://agri.idaho.gov/main/56-2/pesticides/pesticide-disposal/>.

d. Reporting of Hazardous Materials

- i. The PP coordinates LC State's annual Hazardous Waste Reporting, as required by the Idaho Department of Environmental Quality (DEQ).
- ii. The inventories provided by Departments/Divisions/Units that generate hazardous materials will be used to determine LC State's generator status, utilizing the guidelines provided by the DEQ at <http://www.deq.idaho.gov/waste-mgmt-remediation/hazardous-waste/generator-status/> and compile required reporting.
 1. Reporting requirements are determined by generator status. LC State typically falls under the Small Quantity Generator (SQG) status or the Very Small Quantity Generator (VSQG) status.
- iii. The PP will complete the Hazardous Waste Annual Reporting Form, located at <http://www.deq.idaho.gov/waste-mgmt-remediation/hazardous-waste/hazardous-waste-reporting/>, or notification of VSQG status, and submit to the DEQ by January 31st of each year.

APPENDICES

Appendix B: Lockout/Tagout Procedures

Safety Guidance: Before work or maintenance is performed on a machine, equipment, tool, or electrical system, energy sources and/or power must be removed/disconnected. These lockout/tagout procedures provide guidance for safe methods of working on, near, or in machinery or equipment that can cause serious injury. These procedures shall be followed to ensure that the machine or equipment is stopped, isolated from potentially hazardous energy sources, and locked-out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment, or release of stored energy, could cause injury.

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during the use of lockout; 2) to perform the lockout in accordance with these procedures; and 3) upon observing a machine or piece of equipment which is locked-out for servicing or maintenance, not to start, energize, or use that machine or equipment. Failure to adhere to these procedures may result in disciplinary action.

Employees must utilize appropriate Personal Protective Equipment (PPE) and refer to the PP PPE Procedures for further information as applicable.

If a particular assignment makes it impractical to follow these procedures, the foreman directing the work activities will be notified immediately and before work is initiated.

Sequence of Lockout Procedure:

- (1) Notify all affected employees that servicing or maintenance is required on a machine or equipment, and that the machine or equipment must be shut down and locked-out.
- (2) For the machines or equipment (which have more than one source of energy requiring lockout), attach procedures for machine/equipment-specific steps to be followed for locking-out the machine or equipment. These machine/equipment-specific procedures will be posted on the control source, circuit breaker or switch.
- (3) If the machine or equipment is operating, it must be shut down using the normal stopping procedure (depress stop/off button, open switch, close valve, etc.).
- (4) De-activate the energy isolating device(s) (main switch, circuit breaker, flow/control valve, etc.) so that the machine or equipment is isolated from the energy source.
- (5) Lockout the energy isolating device(s) with assigned individual lock(s). If more than one person is exposed to the hazard or is working on the machine or equipment, each person must attach their individual lock. Only the person who attaches the lock is authorized to remove his/her lock.
- (6) Dissipate or restrain stored or residual energy (such as that in capacitors, springs, elevated machine member, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) by grounding, repositioning, blocking, bleeding down, etc.

- (7) Ensure that the machine or equipment is disconnected from the energy source(s) by first checking that no persons are exposed, then verify the machine or equipment is isolated by operating the push/on button or other normal operating control(s) or by testing to make certain the machine or equipment will not operate. Return operating controls to neutral or off position after verifying the isolation of the machine or equipment. For any electrical work, voltage checks will be made of any circuit elements and electrical parts on which work is to be performed and any exposed adjacent parts.
- (8) The machine or equipment is now locked-out, and servicing or maintenance may proceed.

Restoring the Machine or Equipment to Service: When the servicing or maintenance is complete, and the machine or equipment is ready to return to normal operating conditions, and the following steps shall be taken:

- (1) Check the machine, make sure nonessential items are removed from the machine, all components are operationally intact, and all guards are installed.
- (2) Clear the work area and notify all affected employees that the lockout/tagout is going to be removed.
- (3) Verify that the controls are in the neutral position.
- (4) Remove the lockout/tag-out device and reenergize the equipment. **Except in emergencies, only the person who attached the lockout device may remove it.**
- (5) Notify affected employees that servicing or maintenance is complete, and the machine is ready for use.

Training: Lockout/tagout training will be conducted for employees who are required to perform work on equipment as described in these procedures. Training will include review of lockout/tag out procedures as well as their purpose and function. Through training, employees will demonstrate that they can recognize applicable lockout/tag out situations, and that they have acquired the knowledge and skills required for applying, using, and removing the locks and tags.

Assessment: Machine/equipment-specific lockout procedures will be reviewed annually or as needed and appropriate based on machine/equipment operation guidelines. Updates will be made as needed and appropriate. This assessment will be machine-procedure specific and documented. Documentation will be maintained by the PP in the PP Office.

LOTO Procedure Checklist: Completed LOTO Procedure checklists will be maintained by the PP for a minimum of 3 years and located in PP Office.

Lockout/Tagout (LOTO) Procedure Checklist

LOTO

ESTABLISHED: _____
signature / date / time

LOTO CLEARED: _____
signature / date / time

SCOPE OF WORK:

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ENERGY ISOLATION CHECKLIST:

Electrical

Equipment Descriptor	Isolation Point	Isolation Type	Voltage-Type	AF Energy / Boundary	PPE	Isolation Position	Established (Initials)

Non-Electrical

Equipment Descriptor	Isolation Point	Isolation Type	Energy Source	Pressure / Thermal / Chemical	PPE	Isolation Position	Established (Initials)

When locking out the equipment, follow the LOTO Implementation Steps for each isolation. When restoring the equipment, follow the LOTO Clearance Steps to clear each isolation

<i>LOTO Implementation Steps</i>	<i>LOTO Clearance Steps</i>
1. Preparation: review all hazards and controls and perform full employee briefing	1. Verify all work complete and guards in place, or stop all work and install suitable barricades and/or attendants, as required
2. Notify affected personnel, verify that it is safe to shut down the equipment	2. Notify affected personnel, and verify that it is safe to start up the equipment
3. Perform normal equipment shutdown	3. Remove devices for Stored Energy if previously applied (blocks, grounds...)
4. Isolate the energy source	4. Remove LOTO Device, Lock & Tag
5. Apply LOTO Device, Lock & Tag	5. Restore power to the equipment
6. Release Stored Energy if necessary, apply devices if necessary (blocks, grounds...)	
7. Attempt to Restart the Equipment	
8. Verify Zero Energy State	

APPENDICES

Appendix C: Forklift Truck Procedure

Safety Guidance: Only those individuals who are properly trained and authorized may operate materials handling or Hyster type equipment (i.e., forklifts/lift trucks). The forklift trucks should be thoroughly inspected before starting work, and a foreman should be informed if problems are identified. Daily checks should be completed before initiating and the operation instruction manual followed. Lift trucks that require repair should not be operated. Repairs and maintenance should only be carried out by properly qualified individuals (such as dealer service personnel).

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during the use of forklift trucks; and 2) to perform inspections before starting work in accordance with these procedures. Failure to adhere to these procedures may result in disciplinary action.

Employees must utilize the appropriate PPE.

Pre-Operation Safety Checks:

1. Check brakes, lights, and horn before use.
2. Ensure seat belt/safety restraint is in good condition.
3. Know the capacity of the forklift or lift truck before using it. Do not use a forklift without a load rating plate.
4. Always remember the Safe Working Load of a forklift reduces as the mast is tilted forward.
5. Ensure that the lifting forks are in sound condition and centered either side of the mast.
6. Check tire pressures. Never drive with a flat or under-inflated tire.
7. Faulty equipment must not be used. Report any faults immediately.

Operation Procedures:

- Use the steps and hand grabs provided to get onto the truck.
- Ensure that a comfortable operating position is secured before and controls are within easy reach - Armrest and seat position should be correctly adjusted, as well as mirrors.
- Ensure that the safety belt is fastened.
- Do not operate a lift truck unless you are in the operator's seat. Keep arms, legs, and head inside the confines of the truck at all times.
- Follow worksite rules, regulations, and restrictions.
- Operate the forklift safely, observing warning signs.
- An operator must be in full control of the truck at all times - Always look in the direction of travel and be fully aware of what is going on around.
- Operate the forklift within the speed limit.
- Travel slowly when turning - The combination of speed and the sharpness of a turn can cause a tip over.
- Do not stop, start, turn, or change direction suddenly.
- Avoid bumps, holes, loose materials and use caution when the floor is slippery.

- Do not drive over objects such as pieces of wood scattered on the ground - Doing this could cause the load to move or you could lose control.
- Slow the truck and use the horn close to corners, exits, entrances, stairways, doors, pedestrian walkways, and near people.
- Make sure that you always have enough space to stop safely.

Load Stability Procedures:

- Handle loads carefully and check for stability and balance - falling loads can cause injury and damage.
- Travel with the load tilted back and the forks as low as possible - This will increase the stability of the truck.
- Do not travel with the forks raised high above the floor, and never travel or turn with the forks in an elevated position or tilted forward. Observe overhead obstructions when lifting or stacking loads.
- Be alert to falling loads when stacking.
- Carrying a load low to the floor allows good forward visibility; however, do not drive in a forward direction when the load restricts visibility.
- Operate trucks in reverse to improve visibility, except when moving up ramps.
- When stacking, ensure a good view of the rack or top of stack where the load should be positioned.
- Drive carefully when reversing and before moving, tilt the forks back completely and confirm that the load is safe.
- If visibility remains obstructed, stop, and confirm it is safe to proceed. In such circumstances, a lookout or helper may be required.
- Lift trucks are designed to carry loads, not people - Do not let other people ride on the truck unless a second seat is fitted.
- Do not use the forklift truck to lift people, unless there is no practical alternative.
- If a person has to be lifted, use only a securely attached work platform and cage, and follow the appropriate operating instructions.
- Do not permit anyone to stand or walk under the load or lifting mechanism - The load can fall and cause injury or death to someone standing below.
- Do not place hands or feet on the cross members of the mast - Serious injury will be caused if the mast is lowered while your hand or feet are on it.
- Do not lift or move loads that are not safe or stable.
- Make sure loads are correctly stacked and positioned across both forks.
- Stack the load on the pallet or skid safely and correctly.
- Use securing measures such as ropes or bindings if required.
- Operate slowly when moving long, high or wide loads.
- Look out for other people or obstructions in your path of travel.
- Do not lift or move a load unless both forks are fully under the load.
- Do not lift a load with one fork. Use pallets and skids that can withstand the weight of the load.
- Do not use damaged, deformed, or decayed pallets and skids.
- Take care when carrying a rounded, tall, long or wide load, making sure that the load is balanced and well secured.
- Turn and work slowly to prevent the load from moving.
- Ask someone to help when space to maneuver is restricted, and follow signals.
- When the work is done fully lower the forks to the floor and apply the parking brake.

Training: Forklift truck and/or Hyster training will be conducted for employees who are required to perform work using this equipment. Training will address components and procedures associated with safe operation.

Assessment: Each machine/equipment-specific procedure will be assessed at least annually to ensure that the procedure remains valid. Updates will be made as needed and appropriate. This assessment must be machine-procedure specific and documented. Documentation will be maintained by the PP in the PP Office.

APPENDICES

Appendix D: Aerial Lift and Scissor Lift Procedures/Lift Safety Procedures

Safety Guidance: Only individuals who are properly trained and authorized may operate aerial lifts and scissor lifts (“lifts”). The lifts should be thoroughly inspected before starting work, and a foreman should be informed if problems are identified. Daily checks should be completed prior to operation. Lifts that require repair should not be operated. Repairs and maintenance should only be carried out by properly qualified individuals (such as dealer service personnel).

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during the use of lifts; and 2) to perform inspections before starting work in accordance with these procedures. Failure to adhere to these procedures may result in disciplinary action. Employees must successfully complete a training program and receive certification prior to the operation of a lift. Contractors operating lifts on LC State projects are expected to meet or exceed the requirements found in these procedures, and comply with applicable statutes and regulations governing the use of lifts. Employees must utilize appropriate PPE.

Pre-Use Inspection: Prior to the operation of lifts, the Pre-Use Inspection Checklist must be completed. This applies at the beginning of each work period, and whenever a new equipment operator takes control of the lift. Safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) must be reported for immediate repair. The lift must also be locked-out and tagged, and taken out of service until repaired.

General Safe Work Practices:

- Operators shall not wear loose clothing or accessories that can catch in moving parts.
- Before the machine is started, the operator must walk completely around the machine to ensure everyone and everything is clear of the machine.
- Articulating boom and extendable boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- Modifications and additions that may affect the capacity or safe operation of lifts are strictly prohibited without the manufacturer’s written approval. Capacity, operation, and maintenance instruction markings will be changed as necessary if the manufacturer approves a modification.
- The insulated portion (if applicable) of a lift shall not be altered in any manner that might reduce its insulating value.
- Any signs, plates, or decals which are missing or illegible must be replaced.
- If the lift becomes disabled, an “out of service” tag or equivalent shall be attached to the controls inside the platform in a conspicuous location.
- Lifts with noted, reported deficiencies shall not be operated until repairs are made and equipment is authorized for use.
- Operators must report all accidents, regardless of fault and severity, to their foreman.

Safe Work Practices before Operation:

- Consideration shall be given to the amount of wind. Follow the manufacturer's instructions regarding operation in windy conditions. As a general rule lifts shall not be operated in winds exceeding 25mph although this can vary depending on the model of equipment.
- At 25mph wind speeds or anticipated gusts, lifts will be grounded.
- Guardrails must be installed, and access gates or openings must be closed before raising the platform.
- Boom and platform load limits specified by the manufacturer shall not be exceeded.
- Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled, and outriggers are in stowed position (if equipped).
- Consideration shall be given to the protection of bystanders via barricading, having another employee keep bystanders at a safe distance or by other means.
- Lifts shall not be operated from trucks, scaffolds, or similar equipment.
- ANSI and OSHA standards specify minimum safe distances that are to be maintained while working in an aerial lift, as indicated in the table below. If these distances cannot be achieved, do NOT use the equipment.

<50 KV	10 ft.
50 - <199 KV	15 ft.
200 – 349 KV	20 ft.
350 – 499 KV	25 ft.
500 – 749 KV	35 ft.
750 – 1000 KV	45 ft.

Safe Operation:

- Attention shall be given to the direction of travel, clearances above, below and on all sides.
- Employees shall not sit or climb on the guardrails of the lift.
- Planks, ladders, or other devices shall not be used on the work platform.
- An aerial lift shall not be moved when the boom is elevated in a working position with employees in the basket.
- Lifts shall not be placed against another object to steady the elevated platform.
- Lifts shall not be used as a crane or other lifting device.
- Lifts shall not be operated on grades, side slopes or ramps that exceed the manufacturer's recommendations.
- The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface.
- The speed of lifts shall be limited according to the conditions of the ground surface, congestion, visibility, slope, location of personnel and other factors that may cause hazards to other nearby personnel.
- Stunt driving and horseplay shall not be permitted.
- Booms and elevated platform devices shall not be positioned in an attempt to jack the wheels off the ground.
- The area surrounding the elevated platform shall be cleared of personnel and equipment prior to lowering the elevated platform.

- All equipment must be secured on the inside of the aerial lift.
- Operators are to call for assistance if the platform or any part of the machine becomes entangled.

Safe Work Practices after Operation:

- Safe shutdown shall be achieved by utilizing a suitable parking area, placing the platform in the stowed position, placing controls in neutral, idling the engine for gradual cooling, turning off electrical power, and taking the necessary steps to prevent unauthorized use.
- Lifts shall be shut off prior to fueling. Fueling must be completed in well-ventilated areas free of flames, sparks or other hazards which may cause fires or explosions.

Changing and Charging Batteries:

- Battery charging installations must be located in areas designated for that purpose.
- Facilities must provide for: flushing and neutralizing spilled electrolyte, fire protection, protection of charging apparatus from damage by trucks, adequate ventilation for dispersal of fumes from gassing batteries.
- Precautions must be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
- Employees charging and changing batteries shall be authorized to do the work, trained in the proper handling, and required to wear protective clothing, including face shields, long sleeves, rubber boots, aprons, and gloves.

Maintenance:

- Lifts not in safe operating condition must be removed from service. Authorized personnel must make all repairs.
- Repairs to the fuel and ignition systems of lifts, that involve fire hazards, must be conducted only in locations designated for such repairs.
- Lifts in need of repairs to the electrical system must have the battery disconnected before such repairs.
- Only use replacement parts that are currently recommended by the manufacturer.

Departments Utilizing Lifts:

- Must implement and administer these Lift Safety Procedures.
- Review the Lift Safety Procedures annually for compliance and effectiveness, and make recommendations for revision if necessary.
- Verify that employees who operate or work near lifts are properly trained.
- Maintain written records of operator training on each model of lift and the name of the trainer.
- Maintain written records of inspections performed by the lift owner, including the date any problems found, the date when fixed, and the name of the person performing the repairs.
- Maintain written records of the name and purchaser of each lift.

Foremen:

- Coordinate employee training, and certify that all operators receive annual training including, but not limited to, the items listed in these procedures.
- Ensure that only trained and qualified individuals use lifts.
- Verify employee compliance with the principles and practices outlined in the Lift Safety Procedures.
- Provide specific operational training for each aerial lift.

- Observe the operation of aerial lifts and correct unsafe practices.
- Evaluate designated areas for aerial lift use.
- Annually review and update the Lift Safety Procedures as necessary.

Operators:

- Read and comply with the Lift Safety Procedures.
- Complete the Daily Pre-Use Inspection Checklist before operating any lift.
- At least annually review the Lift Safety Procedures.
- Observe the operation of the lift and report unsafe practices to your foreman.

Training Requirements: Employees who are authorized to operate lifts must receive training prior to engaging in their duties, and at least every three (3) years thereafter. The training is to ensure that the Lift Safety Procedures are understood and adhered to. The foreman will also ensure that authorized lift operators have acquired the necessary practical skills required for safe operation. Training is offered by Work Force Training, through the annual Safety Fest event. Foremen or other qualified personnel in the PP department will perform operational training with employees who will operate lifts. Operational Training may also be provided to other College departments or contracts, as requested.

Operational Training: Operational training will determine if employees have the knowledge, experience, and skills necessary to use the lift. Operational training will consist of a combination of general safety instruction, practical/operational training (demonstrations performed by qualified personnel, and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace. Operational training must be conducted under close supervision.

- Employees will receive instruction on the intended purpose and function of each control.
- Prior to operating the lift, the employee will read and understand the manufacturer's operating instruction(s) and lift procedures or receive training by a qualified person on the contents of the manufacturer's operating instruction(s) and users' safety rules.
- Employees will be informed of the lift operating limitations and restrictions as defined by the manufacturer.
- Understand by reading, or having a qualified person explain, all decals, warnings, and instructions displayed on the lift.
- During operational training, employees may operate a lift only under the direct supervision of qualified personnel, and where such operation does not endanger the trainee or other employees.
- Training and evaluation must be completed before an operator is permitted to use a lift without continual and close supervision.

Assessment/Training Records: Training records will be maintained by the PP. Record information to include: 1) Subject of training; 2) Date of training; 3) Name of individual trained; and 4) Name of foreman or qualified individual providing the training. Training records will be maintained by the PP for a minimum of 3 years and located in the PP Office.

Procedure Evaluation: The Lift Safety Procedures shall be evaluated on an annual basis by the PP Director and Foremen, and updated as necessary.

Lift Inspection & Maintenance Record: OSHA regulation 29 CFR Part 1926.453(b)(2)(i) requires owners and operators to perform daily pre-shift inspections of aerial lifts. This Lift Inspection & Maintenance Record is provided to you meet this requirement. The information contains a pre-use

inspection checklist, frequent inspection checklist, work area inspection checklist and a maintenance record. If you have any questions about the use of the inspection and maintenance record please call: LC State PP 208-792-2247.

Pre-Use Inspection Checklist for Lifts: The operator shall inspect lifts prior to placing the machine in service at the beginning of each work shift. Deficiencies noted on the inspection form shall be corrected prior to operation. If the deficiencies cannot be corrected, the lift shall not be used and Lockout/Tagout procedures initiated according to the Lift Safety Procedures. Completed Pre-Use Lift Inspection checklists will be maintained by the PP for a minimum of 1 year and located in the PP Office.

Pre-Use Lift Inspection Checklist

Inspection Item	OK	Repair	Comments
Operating and emergency controls			
Safety devices			
Structural and other critical components present and all associated fasteners and pins in place			
Personal protective devices (harness, lanyard etc.)			
Fluid levels checked (hydraulic oil, engine oil, coolant, etc.)			
Hydraulic power unit, reservoir, hoses, fittings, cylinders, and manifolds			
Electrical components, wiring harness, and electrical cables			
Loose or missing parts			
Tires and wheels			
Placards, warnings, and control markings			
Owner's manual legible and stored inside container located on the platform			
Outriggers, stabilizers and other structures			

Guardrail system			
Cracks in welds or structural components			
Dents or damage to machine			
Other items specified by manufacturer			
All functions and their controls for speed(s) smoothness, and limits of motion			
Lower controls including the provisions for overriding of upper controls			
All chain and cable mechanisms for adjustment, wear or damaged parts			
All emergency and safety devices			
Lubrication of all moving parts, inspection of filter element(s), hydraulic oil, engine oil, and coolant as specified by the manufacturer			
Visual inspection of structural components and other critical components such as fasteners, pins, shafts and locking devices			
Placard, warnings and control markings			

Additional items specified by the manufacturer			
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APPENDICES

Appendix E: Hot-Work & Fire Prevention Procedures

Safety Guidance: Only individuals who are properly trained and authorized will be allowed to perform Hot-Work operations that include welding, cutting, grinding or any other activity involving open flames, sparks or other ignition sources.

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during Hot-Work operations; 2) to perform work in accordance with these Hot-Work and Fire Prevention procedures; and 3) complete the Hot Work Permit prior to commencing Hot-Work operations. Failure to adhere to these procedures may result in disciplinary action.

Hot-Work and Fire Prevention Procedures: The purpose of the Hot-Work and Fire Prevention procedures is to establish guidelines for PP personnel authorized to engage in Hot-Work and to protect College faculty, staff, students, and visitors from injury or loss of life, and resources from fire. The LC State Fire Prevention procedures emphasize and strive to achieve fire prevention by complying with State adopted codes and consensus standards, and through the establishment of sound work practices. The College is committed to comprehensive Fire Prevention procedures to prevent the loss of life and minimize resource loss. These procedures apply to all facilities owned, leased or occupied by LC State, and applies to faculty, staff, students, visitors, vendors, and contractors while on College property. Completed Hot-Work Permits will be maintained by the PP for a minimum of 3 years and located in the PP Office.

Foremen Should:

- Plan and execute all activities in a manner that promotes compliance with LC State Hot-Work and Fire Prevention procedures.
- Ensure that employees receive adequate direction and training for the safe performance of their work, and that the work is performed without undue risk as relates to fire prevention and safety.
- Ensure that work areas are regularly inspected for sound fire prevention practices and fire hazards.
- Require those who do business with the College to perform work in a manner that protects the College from unnecessary environmental and safety risks including fire safety risks.

Employees should:

- Implement fire-safe work practices and comply with environmental health and safety rules and procedures established for their work areas.
- Familiarize themselves with the locations of fire alarms, fire extinguishers and evacuation routes in the areas they occupy.
- Promptly report fire hazards, unsafe equipment, and fire safety violations to the PP Director or the Foreman in charge.

Hot-Work: Hot-work operations include welding, cutting, grinding or any other activity involving open flames, sparks or other ignition sources, which may cause smoke or fire or which may trigger detection/suppression systems. Individuals engaged in Hot-Work operations must take all reasonable and prudent precautions to prevent a fire situation from developing.

Hot-Work Fire Protection and Prevention Guidance:

- Cutting or welding shall be permitted only in areas that are or have been made fire safe. Within the confines of a building or specifically designated facility or area, cutting and welding should preferably be done in a specific area designed for such work, such as a maintenance shop or a detached outside location. Such areas should be of noncombustible and nonflammable contents and suitably segregated from adjacent areas. When work cannot be moved practically, as in most construction work, the area shall be made safe by removing combustibles or protecting combustibles from ignition areas.
- The basic precautions for fire prevention in welding or cutting work are: if the object to be welded or cut cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place; if the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards; or if the requirements stated above cannot be followed, then welding and cutting shall not be performed.
- Whenever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks, which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways, and open or broken windows.
- Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose, or portable extinguishers depending upon the nature and quantity of the combustible material exposed.
- Fire watches shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, if any of the following conditions exist: appreciable combustible material, in building construction or contents, closer than thirty-five (35) feet to the point of operation; wall or floor openings within a thirty-five (35) foot radius expose combustible material in adjacent areas including concealed spaces in walls or floors; appreciable combustibles are more than thirty-five (35) feet away but are easily ignited by sparks; combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.
- Fire watches shall have fire extinguishers equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a one-half (1/2) hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.
- Before cutting or welding, the individual responsible for authorizing cutting and welding procedures shall inspect the area.
- Where combustible materials such as paper clippings, wood shavings or textile fibers are on the floor, the floor shall be swept clean for a radius of thirty-five (35) feet. Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields. Where floors have been wet down, personnel operating arc welding and cutting equipment shall be protected from possible shock.
- Cutting or welding shall not be permitted in the following areas or situations: in areas not authorized by management; in buildings with a sprinkler system while such protection is impaired; in the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids,

or dusts with air), or explosive atmospheres that may develop inside unclean or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dusts; or in areas near the storage of large quantities of exposed, readily ignitable materials, such as bulk sulfur, baled paper, or cotton.

- Where practicable, combustibles shall be relocated at least thirty-five (35) feet from the worksite. Where relocation is impossible, combustibles shall be protected with a flameproof cover or otherwise shielded with metal or fireproof curtains. Edges of covers at the floor should be tight to prevent sparks from going under them. This precaution is also important at overlaps where several covers are used to protect a large pile.
- Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.
- Where cutting or welding is done near walls, partitions, ceiling, or roof of combustible construction, fire-resistant shields or guards shall be provided to prevent ignition.
- If welding is to be done on a metal wall, partition, ceiling, or roof, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation, preferably by relocation of combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided, to prevent ignition.

Foremen Responsibility:

- Shall be responsible for the safe handling of the cutting or welding equipment and the safe use of the cutting and welding process.
- Shall determine the combustible materials and hazardous areas present or likely to be present in the work location.
- Shall protect combustibles from ignition.
- Shall see that authorizations from the proper management representative are secured.
- Shall determine that the cutter or welder secures his approval that conditions are safe before going ahead.
- Shall determine that fire protection and extinguishing equipment are properly located at the site.
- Where fire watches are required, shall see that they are available at the site.
- Before welding, cutting, or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a competent person to determine its flammability. Preservative coatings shall be considered to be highly flammable when scrapings burn with extreme rapidity.
- Precautions shall be taken to prevent the ignition of highly flammable hardened preservative coatings. When coatings are determined to be highly flammable, they shall be stripped from the area to be heated to prevent ignition.
- In enclosed spaces, all surfaces covered with toxic preservatives shall be stripped of all toxic coatings for a distance of at least four (4) inches from the area of heat application, or the employees shall be protected by airline respirators, meeting the requirements specified in this section for this type of work.
- The preservative coatings shall be removed a sufficient distance from the area to be heated to ensure that the temperature of the unstripped metal will not be appreciably raised. Artificial cooling of the metal surrounding the heating area may be used to limit the size of the area required to be cleaned.

LC-STATE HOT-WORK PERMIT FOR WELDING AND CUTTING

Building: _____

Permit issue date: _____

Dept / Area: _____

Work to be done: _____

Permit Expires: _____

Operator Name: _____

Assigned Fire Watcher Name: _____

Precautions to Prevent Fires

DO NOT CUT OR WELD UNTIL THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN

Check each item below

- ___ The work area was personally examined.
- ___ Sprinkler system is in operation.
- ___ There are no flammable liquids or un-purged tanks in the area.
- ___ The job will be confined to the area described on the permit.
- ___ Floors are clean.
- ___ All combustibles have been located 35 feet from the job area and/or protected.
- ___ All floor and walls openings within 35 feet have been covered tightly.
- ___ Fire watchers have assigned to the area and know how to give the alarm.
- ___ Ample extinguishing equipment for immediate use has been provided.
- ___ All cutting and welding equipment was found to be in good repair.
- ___ Fire alarm "Central" notified and alarms are put in TEST.

FINAL CHECK-UP

The work area was observed for at least 30 minutes after work was completed and found fire safe.

Signed: _____

Title: _____

Date: _____ **Time:** _____

REVISION HISTORY

Date	Rev	Section	Update/Revision	Notes
2/5/2020	1.0	All	Procedure created	
3/03/2020	1.1	4.C	Updated Small and Attractive Inventory Management section to remove sampling verbiage	
4/29/2020	1.2	4	Enhanced Inventory section to reflect processes implemented in line with Management Action Plan	

LC State Physical Plant

OPERATIONS AND MAINTENANCE PROCEDURE
MANUAL

REVISED: 04/29/2020

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Introduction

This manual outlines guidelines and procedures associated with the Physical Plant (PP) Operations and Maintenance, providing information specific to Facilities and Campus Health and Safety. PP employees are expected to abide by the operations and maintenance procedures herein. PP personnel are expected to abide by the applicable policies (e.g. Section 4 Administrative Financial Policies, including the Purchasing Policy [Section 4.111], the Budget Policy [Section 4.125], and the Purchasing Procurement Card P Card Policy [Section 4.121]). Failure to do so may result in disciplinary action up to and including dismissal.

Operations and Facilities

1. Facility Inspection Schedule
 - a. The Idaho Division of Building Safety (DBS) performs an annual building inspection of LC State buildings. Those inspections are generally performed near the beginning of each calendar year, as schedule by DBS. PP personnel will escort the inspector throughout the campus. Upon receiving the DBS Findings report, PP will respond in writing within 10 business days, addressing the findings and laying out a path to compliance.
 - b. Facility inspections inform deferred maintenance estimates and institutional state-level requests for deferred maintenance analysis and identified needs support.
2. Standard Maintenance and Repair
 - a. The PP utilizes a work order management and a Planned Maintenance scheduling solution accomplished through the School Dude applications. The Planned Maintenance scheduling solution manages the maintenance schedule for campus assets and major systems, including HVAC, electrical, fire protection, generators, kitchen equipment, and plumbing.
 - b. Roof inspections and cleaning are performed seasonally (minimum of 4 times per year) by PP personnel and reminders are managed through the Planned Maintenance scheduling solution in the School Dude application.
 - c. Walk-about inspections are performed periodically at the discretion of the PP Director, for the purpose of assessing the physical condition of buildings, including the exteriors, roofs, windows, entries, interior finishes and overall suitability for the intended use of the building.
 - d. Maintenance/Repair reviews inform deferred maintenance estimates and institutional state-level requests for deferred maintenance analysis and identified needs support.
3. Efficiencies Management
 - a. PP and the Controller's Office captures efficiencies data using internal spreadsheets. These data are reviewed monthly and annually, as appropriate for the type of data (e.g., utilities data may be reviewed monthly, whereas LED efficiencies may be more meaningfully reflected through bi-annual or annual review).
 - b. The Controller's Office reviews utility-related billings monthly and PP is alerted to anomalies for review.
 - c. The City of Lewiston alerts PP to flow-rate and/or usage anomalies on an as-needed basis.
4. Inventory Management
 - a. The PP follows the policies and procedures for inventory control, asset identification, and disposal, as defined by the Purchasing Policy (Section 4.111) and the Controller's Office

guidelines published at <http://www.lcsc.edu/controllers-office/>. Fixed assets permanently removed from the PP inventory by disposal, donation or, sale will adhere to the guidelines published at: <https://www.lcsc.edu/controllers-office/general-accounting/fixed-assets/>.

- b. Physical Access Restrictions
 - i. Physical access to the PP warehouses, internal storage, and service yard is restricted by a fence and locked gate, which is only accessible to PP and Security personnel. The PP gate is locked during non-business hours.
 - c. PP Warehouse Receiving
 - i. The PP receiving process for incoming inventory includes an inspection of the goods received, review and reconciliation of quantities to the packing slip, and inspection for damages.
 - d. Custodial Supplies
 - i. Consumable assets used in custodial service are housed in a PP warehouse and are organized, monitored, and periodically inventoried. These assets are distributed, upon staff request, by the custodial foreman or leads. A record of consumable assets removed from the PP warehouse is documented and retained.
 - e. Small and Attractive Asset Inventory Management
 - i. The PP has implemented a Small and Attractive Asset Inventory Management procedure, for items with a unit cost between \$300 and \$1,999 and a life span greater than one year.
 - ii. PP Administrative personnel will receive incoming inventory and identify items that fall within the small and attractive cost range and are characterized by their portability and desirability.
 - iii. A record will be created for each item in the PP Small and Attractive Asset Tracker.
 1. When available, the following data points will be recorded for each item: a unique identifier, make, model/serial #, location, and owner.
 2. A record of Small and Attractive assets permanently removed from the PP Inventory will be documented and retained.
 3. See Appendix A: Asset Tracker.
 - iv. Reporting: Inventory reporting will be generated each spring (March-June), provided to the PP Director, and retained in accordance with Record Retention Policy, published at: <https://www.lcsc.edu/media/5542889/4103-records-retention.pdf>
5. Contractor Management
 - a. The PP complies with the State of Idaho and Department of Public Works regulations for contractor engagement and contracting, published at: https://dpw.idaho.gov/design_professional/.
 6. Vendor Management
 - a. The PP complies with the State of Idaho regulations, published at <https://purchasing.idaho.gov/governing-laws-and-policies/>, and LCSC Purchasing Policy (Section 4.111) and Contract Management Policy (Section 4.131).
 7. Project Management
 - a. The PP complies with the recommendations and controls set out by the State of Idaho Department of Public works, published at: https://dpw.idaho.gov/design_professional/.
 - b. Building Code Compliance

- i. All new construction on LC State campus and capital projects are subject to the accepted and published Building Codes as adopted by the State of Idaho Department of Building Safety, published at <https://dbs.idaho.gov/rules/current.html> and the Office of the State Fire Marshall, published at <https://doi.idaho.gov/sfm/Prevention/Statutes>.
- c. LC State facilities are subject to annual inspections as performed by the State Safety inspector, Department of Building Safety and State Fire Marshalls office.

Campus Health and Safety

1. Emergency Protocols: The PP follows the procedures outlined in the Campus Emergency Response Plan, published at http://www.lcsc.edu/media/5603338/Emergency_Response-Procedure_Public.pdf.
2. Employee Safety – Personal Protective Equipment (PPE) Procedure: The purpose of the PPE Procedure is to protect LC State employees from exposure to workplace hazards and the risk of injury through the use of PPE. PPE is not a substitute for more effective control methods, and its use will be considered only when other means of protection against hazards are not adequate or feasible. PPE will be provided, used, and maintained when it has been determined that its use is required to ensure the safety and health of employees, and that such use will lessen the likelihood of occupational injury and/or illness. This section addresses general PPE requirements, including eye and face, head, foot and leg, hand and arm, and body (torso) protection. Additional PPE may be utilized based on the nature of the specific task to be performed. LC State Personal Protective Equipment Policies includes: Responsibilities of directors, foremen, and employees, Hazard assessment and PPE selection, Employee training, and Cleaning and Maintenance of PPE.
 - a. Responsibilities
 - i. The PP Director or designee is responsible for the development, implementation, and administration LC State PPE policies. This involves:
 1. Conducting workplace hazard assessments to determine the presence of hazards that necessitate the use of PPE.
 2. Selecting and purchasing PPE.
 3. Reviewing, updating, and conducting PPE hazard assessments whenever: a job changes, new equipment is used, there has been an accident, a foreman or employee requests it, or at least every year.
 4. Maintaining records on PPE assignments and training.
 5. Providing training, guidance, and assistance to foremen and employees on the proper use, care, and cleaning of approved PPE.
 6. Periodically reevaluating the suitability of previously selected PPE.
 7. Reviewing, updating, and evaluating the overall effectiveness of PPE use, training, and policies.
 - ii. Foremen have the primary responsibility for implementing and enforcing PPE use and policies in their work area. This involves:
 1. Providing appropriate PPE and making it available to employees.
 2. Ensuring that employees are trained on the proper use, care, and cleaning of PPE.
 3. Ensuring that employees properly use and maintain their PPE, and follow LC State PPE policies and rules.
 4. Notifying PP management when new hazards are introduced or when processes are added or changed.

5. Ensuring that defective or damaged PPE is immediately disposed of and replaced.
- iii. Employees: The PPE user is responsible for following the requirements of the PPE policies. This involves:
 1. Properly wearing PPE as required.
 2. Attending required training sessions.
 3. Properly caring for, cleaning, maintaining, and inspecting PPE as required.
 4. Following LC State PPE policies and rules.
 5. Informing the foreman of the need to repair or replace PPE.
 6. Employees who repeatedly disregard and do not follow PPE policies and rules will be subject to disciplinary action.

b. Procedures

- i. Selection of PPE - Once the hazards of a workplace have been identified, the PP Director or designee will determine if the hazards can first be eliminated or reduced by methods other than PPE, (e.g., methods that do not rely on employee behavior, such as engineering controls).
- ii. If such methods are not adequate or feasible, then the PP Director or designee will determine the suitability of the PPE presently available; and as necessary, will select new or additional equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards. Care will be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards will be recommended for purchase.
- iii. All personal protective clothing and equipment will be of safe design and construction for the work to be performed, and will be maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that meet National Institute for Occupational Safety and Health (NIOSH) or American National Standards Institute (ANSI) standards will be procured or accepted for use. Newly purchased PPE must conform to the updated ANSI standards which have been incorporated into the PPE regulations, as follows:
 1. Eye and Face Protection ANSI Z87.1-1989
 2. Head Protection ANSI Z89.1-1986
 3. Foot Protection: Foot protection may be required for full- and part-time employees, dependent on job description and at the discretion of the PP Director. If required, foot protection must comply with OSHA Regulations identified in 1910.136(b) and/or be classified as slip resistant. If foot protection is required, an annual foot protection stipend of \$75 will be provided, typically within the first two weeks of October. If employment is terminated (voluntary or involuntarily) within 6 months of receiving the stipend, the employee is required to pay back 50% of the stipend.
 4. Hand Protection: There are no ANSI standards for gloves, however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed.
- iv. Affected employees whose jobs require the use of PPE will be informed of the PPE selection and will be provided PPE by LC State at no charge. Careful

- consideration will be given to the comfort and proper fit of PPE in order to ensure that the right size is selected and that it will be used.
- c. Training: Employees required to wear PPE will receive training in the proper use and care of PPE before being allowed to perform work requiring its use. Periodic retraining will be offered to PPE users as needed. The training will include, but not necessarily be limited to, the following subjects: When PPE is necessary to be worn, what PPE is necessary, how to properly don, doff, adjust, and wear PPE, the limitations of the PPE, and the proper care, maintenance, useful life, and disposal of the PPE. After the training, employees will demonstrate that they understand how to use PPE properly, or they will be retrained. Training of each employee will follow the steps outlined in OSHA's PPE Assessment training checklists, published at: https://www.osha.gov/dte/library/ppe_assessment/ppe_assessment.html. Completed Checklists for Training Employees on PPE use and care will be maintained by the PP for a minimum of 3 years and located in the PP Office.
 - d. Retraining: The need for retraining will be indicated when an employee's work habits or knowledge indicates a lack of the necessary understanding, motivation, and skills required to use the PPE (i.e., uses PPE improperly), new equipment is installed, changes in the workplace make previous training out-of-date, or changes in the types of PPE to be used make previous training out-of-date.
 - e. Cleaning and Maintenance of PPE: It is important that PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Employees must inspect, clean, and maintain their PPE according to the manufacturers' instructions before and after each use. Foremen are responsible for ensuring that users properly maintain their PPE in good condition.
 - i. PPE must not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible.
 - ii. If employees provide their own PPE, make sure that it is adequate for the workplace hazards, and that it is maintained in a clean and reliable condition.
 - iii. Defective or damaged PPE will not be used and will be immediately discarded and replaced. NOTE: Defective equipment can be worse than no PPE at all. It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.
 - f. Safety Disciplinary Policy: In order to maintain a safe and healthful workplace, employees must be cognizant and aware of institution, State, and Federal safety and health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations. The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.
 - i. A first-time violation will be discussed orally between the foreman and the employee. This will be done as soon as possible.
 - ii. A second-time offense will be followed-up in written form and may be considered in the employee's annual performance review. A copy of this written documentation will be entered into the employee's personnel file.
 - iii. A third-time violation can result in disciplinary action, depending on the seriousness of the violation. NOTE: Repeated violations may be subject to disciplinary action up to and including dismissal.
 - g. See Appendices for PPE Procedures regarding job-specific duties (i.e., Lockout/Tagout, Forklift Truck, Aerial and Scissor Lifts, and Hot-Work).

3. Hazardous Materials: LC State is committed to providing a safe and healthy work environment. The College's Hazardous Materials policy can be found at: <https://www.lcsc.edu/policies/> and is listed as policy #4.200. PP Personnel shall adhere to this policy, and to the following guidelines and procedures for proper handling, storage, disposal and reporting of hazardous materials.
 - a. Handling Hazardous Materials
 - i. PP employees who handle hazardous materials are required to review the applicable Material Safety Data Sheet (MSDS) prior to handling.
 - b. Storage of Hazardous Materials
 - i. PP stores hazardous material in labeled, proper containers. A proper container is one that has retained its integrity and can be sealed tightly. Containers should be resistant to chemical degradation and corrosion. Liquids must be stored in containers designed for liquids, not solids.
 - ii. Used Oil: PP collects used oil in drums stored in a location protected from the weather. Drums must be labeled "USED OIL". No other materials will be mixed with the used oil. Containers must be in good condition and not leaking.
 - iii. Lamps: PP uses Toxicity Characteristic Leaching Procedure (TCLP) Compliant lamps, which do not meet the definition of a hazardous waste, and therefore are not a universal waste. Used bulbs are stored in boxes or containers prior to disposal.
 - iv. Batteries: Used batteries are segregated and stored by type.
 1. Lead-Acid batteries that are leaking must be stored in a plastic container, such as a tub or 5-gallon pail.
 2. Lithium, Lithium ion, Ni-Cad, mercuric oxide, silver oxide, button cell batteries, and other rechargeable type batteries are considered universal waste. These should be stored by taping the electrodes or putting each battery in a re-sealable plastic bag, then placing in a box or container. The box or container should be marked as "Universal Waste – Batteries", with the date the first battery was placed in it. If a universal waste battery is leaking, it is to be placed in a plastic container.
 3. Alkaline batteries can be disposed of in normal trash receptacles.
 - v. Pesticides: Pesticides should be stored in structurally sound containers that can securely close. If the container is damaged, it should be placed in a heavy plastic bag or tub and securely closed. PP does not utilize restricted use pesticides.
 - c. Disposal of Hazardous Materials
 - i. Disposal Services: The PP will send out a Hazardous Material Collection reminder each spring. Departments/Divisions/Units that generate hazardous materials must notify the PP in writing of their inventories by June 1st. The PP will arrange for disposal services of those materials by June 30th of each year.
 - ii. Used Oil: PP will coordinate with the LC State Technical and Industrial Division to arrange for used oil collection service annually, or more frequently if necessary.
 - iii. Lamps: TCLP Compliant lamps are disposed of in the normal trash.
 - iv. Batteries: PP will dispose of used batteries by taking them to a battery recycling facility on an annual basis.
 - v. Pesticides: PP will dispose of unusable pesticides through the Idaho State Department of Agriculture (ISDA) Pesticide Disposal Program. Collection sites and dates are published at: <https://agri.idaho.gov/main/56-2/pesticides/pesticide-disposal/>.

d. Reporting of Hazardous Materials

- i. The PP coordinates LC State's annual Hazardous Waste Reporting, as required by the Idaho Department of Environmental Quality (DEQ).
- ii. The inventories provided by Departments/Divisions/Units that generate hazardous materials will be used to determine LC State's generator status, utilizing the guidelines provided by the DEQ at <http://www.deq.idaho.gov/waste-mgmt-remediation/hazardous-waste/generator-status/> and compile required reporting.
 1. Reporting requirements are determined by generator status. LC State typically falls under the Small Quantity Generator (SQG) status or the Very Small Quantity Generator (VSQG) status.
- iii. The PP will complete the Hazardous Waste Annual Reporting Form, located at <http://www.deq.idaho.gov/waste-mgmt-remediation/hazardous-waste/hazardous-waste-reporting/>, or notification of VSQG status, and submit to the DEQ by January 31st of each year.

APPENDICES

Appendix B: Lockout/Tagout Procedures

Safety Guidance: Before work or maintenance is performed on a machine, equipment, tool, or electrical system, energy sources and/or power must be removed/disconnected. These lockout/tagout procedures provide guidance for safe methods of working on, near, or in machinery or equipment that can cause serious injury. These procedures shall be followed to ensure that the machine or equipment is stopped, isolated from potentially hazardous energy sources, and locked-out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment, or release of stored energy, could cause injury.

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during the use of lockout; 2) to perform the lockout in accordance with these procedures; and 3) upon observing a machine or piece of equipment which is locked-out for servicing or maintenance, not to start, energize, or use that machine or equipment. Failure to adhere to these procedures may result in disciplinary action.

Employees must utilize appropriate Personal Protective Equipment (PPE) and refer to the PP PPE Procedures for further information as applicable.

If a particular assignment makes it impractical to follow these procedures, the foreman directing the work activities will be notified immediately and before work is initiated.

Sequence of Lockout Procedure:

- (1) Notify all affected employees that servicing or maintenance is required on a machine or equipment, and that the machine or equipment must be shut down and locked-out.
- (2) For the machines or equipment (which have more than one source of energy requiring lockout), attach procedures for machine/equipment-specific steps to be followed for locking-out the machine or equipment. These machine/equipment-specific procedures will be posted on the control source, circuit breaker or switch.
- (3) If the machine or equipment is operating, it must be shut down using the normal stopping procedure (depress stop/off button, open switch, close valve, etc.).
- (4) De-activate the energy isolating device(s) (main switch, circuit breaker, flow/control valve, etc.) so that the machine or equipment is isolated from the energy source.
- (5) Lockout the energy isolating device(s) with assigned individual lock(s). If more than one person is exposed to the hazard or is working on the machine or equipment, each person must attach their individual lock. Only the person who attaches the lock is authorized to remove his/her lock.
- (6) Dissipate or restrain stored or residual energy (such as that in capacitors, springs, elevated machine member, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) by grounding, repositioning, blocking, bleeding down, etc.

- (7) Ensure that the machine or equipment is disconnected from the energy source(s) by first checking that no persons are exposed, then verify the machine or equipment is isolated by operating the push/on button or other normal operating control(s) or by testing to make certain the machine or equipment will not operate. Return operating controls to neutral or off position after verifying the isolation of the machine or equipment. For any electrical work, voltage checks will be made of any circuit elements and electrical parts on which work is to be performed and any exposed adjacent parts.
- (8) The machine or equipment is now locked-out, and servicing or maintenance may proceed.

Restoring the Machine or Equipment to Service: When the servicing or maintenance is complete, and the machine or equipment is ready to return to normal operating conditions, and the following steps shall be taken:

- (1) Check the machine, make sure nonessential items are removed from the machine, all components are operationally intact, and all guards are installed.
- (2) Clear the work area and notify all affected employees that the lockout/tagout is going to be removed.
- (3) Verify that the controls are in the neutral position.
- (4) Remove the lockout/tag-out device and reenergize the equipment. **Except in emergencies, only the person who attached the lockout device may remove it.**
- (5) Notify affected employees that servicing or maintenance is complete, and the machine is ready for use.

Training: Lockout/tagout training will be conducted for employees who are required to perform work on equipment as described in these procedures. Training will include review of lockout/tag out procedures as well as their purpose and function. Through training, employees will demonstrate that they can recognize applicable lockout/tag out situations, and that they have acquired the knowledge and skills required for applying, using, and removing the locks and tags.

Assessment: Machine/equipment-specific lockout procedures will be reviewed annually or as needed and appropriate based on machine/equipment operation guidelines. Updates will be made as needed and appropriate. This assessment will be machine-procedure specific and documented. Documentation will be maintained by the PP in the PP Office.

LOTO Procedure Checklist: Completed LOTO Procedure checklists will be maintained by the PP for a minimum of 3 years and located in PP Office.

Lockout/Tagout (LOTO) Procedure Checklist

LOTO

ESTABLISHED: _____
signature / date / time

LOTO CLEARED: _____
signature / date / time

SCOPE OF WORK:

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ENERGY ISOLATION CHECKLIST:

Electrical

Equipment Descriptor	Isolation Point	Isolation Type	Voltage-Type	AF Energy / Boundary	PPE	Isolation Position	Established (Initials)

Non-Electrical

Equipment Descriptor	Isolation Point	Isolation Type	Energy Source	Pressure / Thermal / Chemical	PPE	Isolation Position	Established (Initials)

When locking out the equipment, follow the LOTO Implementation Steps for each isolation. When restoring the equipment, follow the LOTO Clearance Steps to clear each isolation

<i>LOTO Implementation Steps</i>	<i>LOTO Clearance Steps</i>
1. Preparation: review all hazards and controls and perform full employee briefing	1. Verify all work complete and guards in place, or stop all work and install suitable barricades and/or attendants, as required
2. Notify affected personnel, verify that it is safe to shut down the equipment	2. Notify affected personnel, and verify that it is safe to start up the equipment
3. Perform normal equipment shutdown	3. Remove devices for Stored Energy if previously applied (blocks, grounds...)
4. Isolate the energy source	4. Remove LOTO Device, Lock & Tag
5. Apply LOTO Device, Lock & Tag	5. Restore power to the equipment
6. Release Stored Energy if necessary, apply devices if necessary (blocks, grounds...)	
7. Attempt to Restart the Equipment	
8. Verify Zero Energy State	

APPENDICES

Appendix C: Forklift Truck Procedure

Safety Guidance: Only those individuals who are properly trained and authorized may operate materials handling or Hyster type equipment (i.e., forklifts/lift trucks). The forklift trucks should be thoroughly inspected before starting work, and a foreman should be informed if problems are identified. Daily checks should be completed before initiating and the operation instruction manual followed. Lift trucks that require repair should not be operated. Repairs and maintenance should only be carried out by properly qualified individuals (such as dealer service personnel).

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during the use of forklift trucks; and 2) to perform inspections before starting work in accordance with these procedures. Failure to adhere to these procedures may result in disciplinary action.

Employees must utilize the appropriate PPE.

Pre-Operation Safety Checks:

1. Check brakes, lights, and horn before use.
2. Ensure seat belt/safety restraint is in good condition.
3. Know the capacity of the forklift or lift truck before using it. Do not use a forklift without a load rating plate.
4. Always remember the Safe Working Load of a forklift reduces as the mast is tilted forward.
5. Ensure that the lifting forks are in sound condition and centered either side of the mast.
6. Check tire pressures. Never drive with a flat or under-inflated tire.
7. Faulty equipment must not be used. Report any faults immediately.

Operation Procedures:

- Use the steps and hand grabs provided to get onto the truck.
- Ensure that a comfortable operating position is secured before and controls are within easy reach - Armrest and seat position should be correctly adjusted, as well as mirrors.
- Ensure that the safety belt is fastened.
- Do not operate a lift truck unless you are in the operator's seat. Keep arms, legs, and head inside the confines of the truck at all times.
- Follow worksite rules, regulations, and restrictions.
- Operate the forklift safely, observing warning signs.
- An operator must be in full control of the truck at all times - Always look in the direction of travel and be fully aware of what is going on around.
- Operate the forklift within the speed limit.
- Travel slowly when turning - The combination of speed and the sharpness of a turn can cause a tip over.
- Do not stop, start, turn, or change direction suddenly.
- Avoid bumps, holes, loose materials and use caution when the floor is slippery.

- Do not drive over objects such as pieces of wood scattered on the ground - Doing this could cause the load to move or you could lose control.
- Slow the truck and use the horn close to corners, exits, entrances, stairways, doors, pedestrian walkways, and near people.
- Make sure that you always have enough space to stop safely.

Load Stability Procedures:

- Handle loads carefully and check for stability and balance - falling loads can cause injury and damage.
- Travel with the load tilted back and the forks as low as possible - This will increase the stability of the truck.
- Do not travel with the forks raised high above the floor, and never travel or turn with the forks in an elevated position or tilted forward. Observe overhead obstructions when lifting or stacking loads.
- Be alert to falling loads when stacking.
- Carrying a load low to the floor allows good forward visibility; however, do not drive in a forward direction when the load restricts visibility.
- Operate trucks in reverse to improve visibility, except when moving up ramps.
- When stacking, ensure a good view of the rack or top of stack where the load should be positioned.
- Drive carefully when reversing and before moving, tilt the forks back completely and confirm that the load is safe.
- If visibility remains obstructed, stop, and confirm it is safe to proceed. In such circumstances, a lookout or helper may be required.
- Lift trucks are designed to carry loads, not people - Do not let other people ride on the truck unless a second seat is fitted.
- Do not use the forklift truck to lift people, unless there is no practical alternative.
- If a person has to be lifted, use only a securely attached work platform and cage, and follow the appropriate operating instructions.
- Do not permit anyone to stand or walk under the load or lifting mechanism - The load can fall and cause injury or death to someone standing below.
- Do not place hands or feet on the cross members of the mast - Serious injury will be caused if the mast is lowered while your hand or feet are on it.
- Do not lift or move loads that are not safe or stable.
- Make sure loads are correctly stacked and positioned across both forks.
- Stack the load on the pallet or skid safely and correctly.
- Use securing measures such as ropes or bindings if required.
- Operate slowly when moving long, high or wide loads.
- Look out for other people or obstructions in your path of travel.
- Do not lift or move a load unless both forks are fully under the load.
- Do not lift a load with one fork. Use pallets and skids that can withstand the weight of the load.
- Do not use damaged, deformed, or decayed pallets and skids.
- Take care when carrying a rounded, tall, long or wide load, making sure that the load is balanced and well secured.
- Turn and work slowly to prevent the load from moving.
- Ask someone to help when space to maneuver is restricted, and follow signals.
- When the work is done fully lower the forks to the floor and apply the parking brake.

Training: Forklift truck and/or Hyster training will be conducted for employees who are required to perform work using this equipment. Training will address components and procedures associated with safe operation.

Assessment: Each machine/equipment-specific procedure will be assessed at least annually to ensure that the procedure remains valid. Updates will be made as needed and appropriate. This assessment must be machine-procedure specific and documented. Documentation will be maintained by the PP in the PP Office.

APPENDICES

Appendix D: Aerial Lift and Scissor Lift Procedures/Lift Safety Procedures

Safety Guidance: Only individuals who are properly trained and authorized may operate aerial lifts and scissor lifts (“lifts”). The lifts should be thoroughly inspected before starting work, and a foreman should be informed if problems are identified. Daily checks should be completed prior to operation. Lifts that require repair should not be operated. Repairs and maintenance should only be carried out by properly qualified individuals (such as dealer service personnel).

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during the use of lifts; and 2) to perform inspections before starting work in accordance with these procedures. Failure to adhere to these procedures may result in disciplinary action. Employees must successfully complete a training program and receive certification prior to the operation of a lift. Contractors operating lifts on LC State projects are expected to meet or exceed the requirements found in these procedures, and comply with applicable statutes and regulations governing the use of lifts. Employees must utilize appropriate PPE.

Pre-Use Inspection: Prior to the operation of lifts, the Pre-Use Inspection Checklist must be completed. This applies at the beginning of each work period, and whenever a new equipment operator takes control of the lift. Safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) must be reported for immediate repair. The lift must also be locked-out and tagged, and taken out of service until repaired.

General Safe Work Practices:

- Operators shall not wear loose clothing or accessories that can catch in moving parts.
- Before the machine is started, the operator must walk completely around the machine to ensure everyone and everything is clear of the machine.
- Articulating boom and extendable boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- Modifications and additions that may affect the capacity or safe operation of lifts are strictly prohibited without the manufacturer’s written approval. Capacity, operation, and maintenance instruction markings will be changed as necessary if the manufacturer approves a modification.
- The insulated portion (if applicable) of a lift shall not be altered in any manner that might reduce its insulating value.
- Any signs, plates, or decals which are missing or illegible must be replaced.
- If the lift becomes disabled, an “out of service” tag or equivalent shall be attached to the controls inside the platform in a conspicuous location.
- Lifts with noted, reported deficiencies shall not be operated until repairs are made and equipment is authorized for use.
- Operators must report all accidents, regardless of fault and severity, to their foreman.

Safe Work Practices before Operation:

- Consideration shall be given to the amount of wind. Follow the manufacturer's instructions regarding operation in windy conditions. As a general rule lifts shall not be operated in winds exceeding 25mph although this can vary depending on the model of equipment.
- At 25mph wind speeds or anticipated gusts, lifts will be grounded.
- Guardrails must be installed, and access gates or openings must be closed before raising the platform.
- Boom and platform load limits specified by the manufacturer shall not be exceeded.
- Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled, and outriggers are in stowed position (if equipped).
- Consideration shall be given to the protection of bystanders via barricading, having another employee keep bystanders at a safe distance or by other means.
- Lifts shall not be operated from trucks, scaffolds, or similar equipment.
- ANSI and OSHA standards specify minimum safe distances that are to be maintained while working in an aerial lift, as indicated in the table below. If these distances cannot be achieved, do NOT use the equipment.

<50 KV	10 ft.
50 - <199 KV	15 ft.
200 – 349 KV	20 ft.
350 – 499 KV	25 ft.
500 – 749 KV	35 ft.
750 – 1000 KV	45 ft.

Safe Operation:

- Attention shall be given to the direction of travel, clearances above, below and on all sides.
- Employees shall not sit or climb on the guardrails of the lift.
- Planks, ladders, or other devices shall not be used on the work platform.
- An aerial lift shall not be moved when the boom is elevated in a working position with employees in the basket.
- Lifts shall not be placed against another object to steady the elevated platform.
- Lifts shall not be used as a crane or other lifting device.
- Lifts shall not be operated on grades, side slopes or ramps that exceed the manufacturer's recommendations.
- The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface.
- The speed of lifts shall be limited according to the conditions of the ground surface, congestion, visibility, slope, location of personnel and other factors that may cause hazards to other nearby personnel.
- Stunt driving and horseplay shall not be permitted.
- Booms and elevated platform devices shall not be positioned in an attempt to jack the wheels off the ground.
- The area surrounding the elevated platform shall be cleared of personnel and equipment prior to lowering the elevated platform.

- All equipment must be secured on the inside of the aerial lift.
- Operators are to call for assistance if the platform or any part of the machine becomes entangled.

Safe Work Practices after Operation:

- Safe shutdown shall be achieved by utilizing a suitable parking area, placing the platform in the stowed position, placing controls in neutral, idling the engine for gradual cooling, turning off electrical power, and taking the necessary steps to prevent unauthorized use.
- Lifts shall be shut off prior to fueling. Fueling must be completed in well-ventilated areas free of flames, sparks or other hazards which may cause fires or explosions.

Changing and Charging Batteries:

- Battery charging installations must be located in areas designated for that purpose.
- Facilities must provide for: flushing and neutralizing spilled electrolyte, fire protection, protection of charging apparatus from damage by trucks, adequate ventilation for dispersal of fumes from gassing batteries.
- Precautions must be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
- Employees charging and changing batteries shall be authorized to do the work, trained in the proper handling, and required to wear protective clothing, including face shields, long sleeves, rubber boots, aprons, and gloves.

Maintenance:

- Lifts not in safe operating condition must be removed from service. Authorized personnel must make all repairs.
- Repairs to the fuel and ignition systems of lifts, that involve fire hazards, must be conducted only in locations designated for such repairs.
- Lifts in need of repairs to the electrical system must have the battery disconnected before such repairs.
- Only use replacement parts that are currently recommended by the manufacturer.

Departments Utilizing Lifts:

- Must implement and administer these Lift Safety Procedures.
- Review the Lift Safety Procedures annually for compliance and effectiveness, and make recommendations for revision if necessary.
- Verify that employees who operate or work near lifts are properly trained.
- Maintain written records of operator training on each model of lift and the name of the trainer.
- Maintain written records of inspections performed by the lift owner, including the date any problems found, the date when fixed, and the name of the person performing the repairs.
- Maintain written records of the name and purchaser of each lift.

Foremen:

- Coordinate employee training, and certify that all operators receive annual training including, but not limited to, the items listed in these procedures.
- Ensure that only trained and qualified individuals use lifts.
- Verify employee compliance with the principles and practices outlined in the Lift Safety Procedures.
- Provide specific operational training for each aerial lift.

- Observe the operation of aerial lifts and correct unsafe practices.
- Evaluate designated areas for aerial lift use.
- Annually review and update the Lift Safety Procedures as necessary.

Operators:

- Read and comply with the Lift Safety Procedures.
- Complete the Daily Pre-Use Inspection Checklist before operating any lift.
- At least annually review the Lift Safety Procedures.
- Observe the operation of the lift and report unsafe practices to your foreman.

Training Requirements: Employees who are authorized to operate lifts must receive training prior to engaging in their duties, and at least every three (3) years thereafter. The training is to ensure that the Lift Safety Procedures are understood and adhered to. The foreman will also ensure that authorized lift operators have acquired the necessary practical skills required for safe operation. Training is offered by Work Force Training, through the annual Safety Fest event. Foremen or other qualified personnel in the PP department will perform operational training with employees who will operate lifts. Operational Training may also be provided to other College departments or contracts, as requested.

Operational Training: Operational training will determine if employees have the knowledge, experience, and skills necessary to use the lift. Operational training will consist of a combination of general safety instruction, practical/operational training (demonstrations performed by qualified personnel, and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace. Operational training must be conducted under close supervision.

- Employees will receive instruction on the intended purpose and function of each control.
- Prior to operating the lift, the employee will read and understand the manufacturer's operating instruction(s) and lift procedures or receive training by a qualified person on the contents of the manufacturer's operating instruction(s) and users' safety rules.
- Employees will be informed of the lift operating limitations and restrictions as defined by the manufacturer.
- Understand by reading, or having a qualified person explain, all decals, warnings, and instructions displayed on the lift.
- During operational training, employees may operate a lift only under the direct supervision of qualified personnel, and where such operation does not endanger the trainee or other employees.
- Training and evaluation must be completed before an operator is permitted to use a lift without continual and close supervision.

Assessment/Training Records: Training records will be maintained by the PP. Record information to include: 1) Subject of training; 2) Date of training; 3) Name of individual trained; and 4) Name of foreman or qualified individual providing the training. Training records will be maintained by the PP for a minimum of 3 years and located in the PP Office.

Procedure Evaluation: The Lift Safety Procedures shall be evaluated on an annual basis by the PP Director and Foremen, and updated as necessary.

Lift Inspection & Maintenance Record: OSHA regulation 29 CFR Part 1926.453(b)(2)(i) requires owners and operators to perform daily pre-shift inspections of aerial lifts. This Lift Inspection & Maintenance Record is provided to you meet this requirement. The information contains a pre-use

inspection checklist, frequent inspection checklist, work area inspection checklist and a maintenance record. If you have any questions about the use of the inspection and maintenance record please call: LC State PP 208-792-2247.

Pre-Use Inspection Checklist for Lifts: The operator shall inspect lifts prior to placing the machine in service at the beginning of each work shift. Deficiencies noted on the inspection form shall be corrected prior to operation. If the deficiencies cannot be corrected, the lift shall not be used and Lockout/Tagout procedures initiated according to the Lift Safety Procedures. Completed Pre-Use Lift Inspection checklists will be maintained by the PP for a minimum of 1 year and located in the PP Office.

Pre-Use Lift Inspection Checklist

Inspection Item	OK	Repair	Comments
Operating and emergency controls			
Safety devices			
Structural and other critical components present and all associated fasteners and pins in place			
Personal protective devices (harness, lanyard etc.)			
Fluid levels checked (hydraulic oil, engine oil, coolant, etc.)			
Hydraulic power unit, reservoir, hoses, fittings, cylinders, and manifolds			
Electrical components, wiring harness, and electrical cables			
Loose or missing parts			
Tires and wheels			
Placards, warnings, and control markings			
Owner’s manual legible and stored inside container located on the platform			
Outriggers, stabilizers and other structures			

Guardrail system			
Cracks in welds or structural components			
Dents or damage to machine			
Other items specified by manufacturer			
All functions and their controls for speed(s) smoothness, and limits of motion			
Lower controls including the provisions for overriding of upper controls			
All chain and cable mechanisms for adjustment, wear or damaged parts			
All emergency and safety devices			
Lubrication of all moving parts, inspection of filter element(s), hydraulic oil, engine oil, and coolant as specified by the manufacturer			
Visual inspection of structural components and other critical components such as fasteners, pins, shafts and locking devices			
Placard, warnings and control markings			

Additional items specified by the manufacturer			
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APPENDICES

Appendix E: Hot-Work & Fire Prevention Procedures

Safety Guidance: Only individuals who are properly trained and authorized will be allowed to perform Hot-Work operations that include welding, cutting, grinding or any other activity involving open flames, sparks or other ignition sources.

Employee Responsibilities: It is the responsibility of each employee: 1) to comply with the restrictions and limitations imposed upon them during Hot-Work operations; 2) to perform work in accordance with these Hot-Work and Fire Prevention procedures; and 3) complete the Hot Work Permit prior to commencing Hot-Work operations. Failure to adhere to these procedures may result in disciplinary action.

Hot-Work and Fire Prevention Procedures: The purpose of the Hot-Work and Fire Prevention procedures is to establish guidelines for PP personnel authorized to engage in Hot-Work and to protect College faculty, staff, students, and visitors from injury or loss of life, and resources from fire. The LC State Fire Prevention procedures emphasize and strive to achieve fire prevention by complying with State adopted codes and consensus standards, and through the establishment of sound work practices. The College is committed to comprehensive Fire Prevention procedures to prevent the loss of life and minimize resource loss. These procedures apply to all facilities owned, leased or occupied by LC State, and applies to faculty, staff, students, visitors, vendors, and contractors while on College property. Completed Hot-Work Permits will be maintained by the PP for a minimum of 3 years and located in the PP Office.

Foremen Should:

- Plan and execute all activities in a manner that promotes compliance with LC State Hot-Work and Fire Prevention procedures.
- Ensure that employees receive adequate direction and training for the safe performance of their work, and that the work is performed without undue risk as relates to fire prevention and safety.
- Ensure that work areas are regularly inspected for sound fire prevention practices and fire hazards.
- Require those who do business with the College to perform work in a manner that protects the College from unnecessary environmental and safety risks including fire safety risks.

Employees should:

- Implement fire-safe work practices and comply with environmental health and safety rules and procedures established for their work areas.
- Familiarize themselves with the locations of fire alarms, fire extinguishers and evacuation routes in the areas they occupy.
- Promptly report fire hazards, unsafe equipment, and fire safety violations to the PP Director or the Foreman in charge.

Hot-Work: Hot-work operations include welding, cutting, grinding or any other activity involving open flames, sparks or other ignition sources, which may cause smoke or fire or which may trigger detection/suppression systems. Individuals engaged in Hot-Work operations must take all reasonable and prudent precautions to prevent a fire situation from developing.

Hot-Work Fire Protection and Prevention Guidance:

- Cutting or welding shall be permitted only in areas that are or have been made fire safe. Within the confines of a building or specifically designated facility or area, cutting and welding should preferably be done in a specific area designed for such work, such as a maintenance shop or a detached outside location. Such areas should be of noncombustible and nonflammable contents and suitably segregated from adjacent areas. When work cannot be moved practically, as in most construction work, the area shall be made safe by removing combustibles or protecting combustibles from ignition areas.
- The basic precautions for fire prevention in welding or cutting work are: if the object to be welded or cut cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place; if the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards; or if the requirements stated above cannot be followed, then welding and cutting shall not be performed.
- Whenever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks, which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways, and open or broken windows.
- Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose, or portable extinguishers depending upon the nature and quantity of the combustible material exposed.
- Fire watches shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, if any of the following conditions exist: appreciable combustible material, in building construction or contents, closer than thirty-five (35) feet to the point of operation; wall or floor openings within a thirty-five (35) foot radius expose combustible material in adjacent areas including concealed spaces in walls or floors; appreciable combustibles are more than thirty-five (35) feet away but are easily ignited by sparks; combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.
- Fire watches shall have fire extinguishers equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a one-half (1/2) hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.
- Before cutting or welding, the individual responsible for authorizing cutting and welding procedures shall inspect the area.
- Where combustible materials such as paper clippings, wood shavings or textile fibers are on the floor, the floor shall be swept clean for a radius of thirty-five (35) feet. Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields. Where floors have been wet down, personnel operating arc welding and cutting equipment shall be protected from possible shock.
- Cutting or welding shall not be permitted in the following areas or situations: in areas not authorized by management; in buildings with a sprinkler system while such protection is impaired; in the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids,

or dusts with air), or explosive atmospheres that may develop inside unclean or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dusts; or in areas near the storage of large quantities of exposed, readily ignitable materials, such as bulk sulfur, baled paper, or cotton.

- Where practicable, combustibles shall be relocated at least thirty-five (35) feet from the worksite. Where relocation is impossible, combustibles shall be protected with a flameproof cover or otherwise shielded with metal or fireproof curtains. Edges of covers at the floor should be tight to prevent sparks from going under them. This precaution is also important at overlaps where several covers are used to protect a large pile.
- Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.
- Where cutting or welding is done near walls, partitions, ceiling, or roof of combustible construction, fire-resistant shields or guards shall be provided to prevent ignition.
- If welding is to be done on a metal wall, partition, ceiling, or roof, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation, preferably by relocation of combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided, to prevent ignition.

Foremen Responsibility:

- Shall be responsible for the safe handling of the cutting or welding equipment and the safe use of the cutting and welding process.
- Shall determine the combustible materials and hazardous areas present or likely to be present in the work location.
- Shall protect combustibles from ignition.
- Shall see that authorizations from the proper management representative are secured.
- Shall determine that the cutter or welder secures his approval that conditions are safe before going ahead.
- Shall determine that fire protection and extinguishing equipment are properly located at the site.
- Where fire watches are required, shall see that they are available at the site.
- Before welding, cutting, or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a competent person to determine its flammability. Preservative coatings shall be considered to be highly flammable when scrapings burn with extreme rapidity.
- Precautions shall be taken to prevent the ignition of highly flammable hardened preservative coatings. When coatings are determined to be highly flammable, they shall be stripped from the area to be heated to prevent ignition.
- In enclosed spaces, all surfaces covered with toxic preservatives shall be stripped of all toxic coatings for a distance of at least four (4) inches from the area of heat application, or the employees shall be protected by airline respirators, meeting the requirements specified in this section for this type of work.
- The preservative coatings shall be removed a sufficient distance from the area to be heated to ensure that the temperature of the unstripped metal will not be appreciably raised. Artificial cooling of the metal surrounding the heating area may be used to limit the size of the area required to be cleaned.

LC-STATE HOT-WORK PERMIT FOR WELDING AND CUTTING

Building: _____

Permit issue date: _____

Dept / Area: _____

Work to be done: _____

Permit Expires: _____

Operator Name: _____

Assigned Fire Watcher Name: _____

Precautions to Prevent Fires

DO NOT CUT OR WELD UNTIL THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN

Check each item below

- ___ The work area was personally examined.
- ___ Sprinkler system is in operation.
- ___ There are no flammable liquids or un-purged tanks in the area.
- ___ The job will be confined to the area described on the permit.
- ___ Floors are clean.
- ___ All combustibles have been located 35 feet from the job area and/or protected.
- ___ All floor and walls openings within 35 feet have been covered tightly.
- ___ Fire watchers have assigned to the area and know how to give the alarm.
- ___ Ample extinguishing equipment for immediate use has been provided.
- ___ All cutting and welding equipment was found to be in good repair.
- ___ Fire alarm "Central" notified and alarms are put in TEST.

FINAL CHECK-UP

The work area was observed for at least 30 minutes after work was completed and found fire safe.

Signed: _____

Title: _____

Date: _____ **Time:** _____

REVISION HISTORY

Date	Rev	Section	Update/Revision	Notes
2/5/2020	1.0	All	Procedure created	
3/03/2020	1.1	4.C	Updated Small and Attractive Inventory Management section to remove sampling verbiage	
4/29/2020	1.2	4	Enhanced Inventory section to reflect processes implemented in line with Management Action Plan	