Aerial Platform and Scissor Lift Procedure

1. Purpose
1.1. The purpose of this procedure is to outline the safety activities that shall be performed when operating aerial platforms and scissor lifts. This document contains practices and procedures to protect employees from hazards associated with aerial platforms and scissor lifts in compliance with OSHA 29 CFR 1926.452(w), 29 CFR 1926.453, and ANSI/SIA A92.2 through A92.6 Standards (2001 through 2006).

2. Scope
2.1. This procedure applies to all University owned or rented aerial platform and scissor lifts and the University employees who use them. Parts of this program address the use of forklifts that have been approved for the use of elevating personnel.

3. Definitions
3.1. **Aerial platform:** A mobile device that has an adjustable position platform, supported from ground level by a structure.
3.2. **Competent person:** One who, by possession of a recognized degree, certificate, or professional standing, or by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.
3.3. **Familiarization:** Providing information regarding the control functions and safety devices for the aerial platform(s) to a qualified person or operator who controls the movement of the aerial platform(s) being delivered.
3.4. **Guardrail system:** A vertical barrier primarily intended to protect against personnel falling to lower levels.
3.5. **Hazardous location:** Any location that contains, or has the potential to contain, an explosive or flammable atmosphere as defined in ANSI/NFPA 505 – 1996, Powered Industrial Trucks.
3.6. **Maintenance:** The act of upkeep such as inspection, lubrication, refueling, cleaning, adjustment and scheduled part(s) replacement.
3.7. **Manufacturer:** A person or entity who makes, builds, or produces an aerial platform.
3.8. **Operation:** Performance of functions of an aerial platform and scissor lifts within the scope of its specifications and in accordance with the manufacturer’s instructions, the user’s work rules, and applicable governmental regulations.
3.9. **Operator:** A qualified person who controls the movement of an aerial platform.
3.10. **Outriggers:** Devices that increase the stability of the aerial platform and that are capable of lifting and leveling the aerial platform.
3.11. **Platform:** The portion of an aerial platform intended to be occupied by personnel with their necessary tools and materials.
3.12. **Repair**: The act of restoring to good condition that which has been broken, damaged or worn due to use, abuse or other reasons.

3.13. **Shall**: The word “shall” is to be understood as being mandatory.

3.14. **Stability/Stable**: A condition of an aerial platform and scissor lift in which the sum of the moments that tend to overturn the unit is less than or equal to the sum of the moments tending to resist overturning.

3.15. **Stabilizers**: Devices that increase the stability of the aerial platform but are not capable of lifting or leveling the aerial platform.

3.16. **Training**: Instruction to enable the trainee to become an operator.

3.17. **User**: A person(s) or entity who has care, control and custody of the aerial platform. This person or entity may also be the employer of the operator, a dealer, owner, lessor, lessee, or operator.

4. **Responsibilities**

4.1. **Department Chairs and Administrator’s Responsibilities**:

   4.1.1. Ensure that responsibilities of this program are assigned to individuals within their unit/department.

   4.1.2. Actively support the implementation and follow-through of this program within their unit/department.

   4.1.3. Ensure that adequate funding is available to support this program.

4.2. **Departmental Managers/Supervisors**:

   4.2.1. Upon the purchase of an aerial platform or scissor lift:

      4.2.1.1. Shall contact Risk Management & Safety prior to the purchase for approval and to ensure that tracking information can be updated.

      4.2.1.2. Shall ensure that the operating and maintenance manuals have been received, made available to each operator, and placed in a weather-proof compartment on the lift.

      4.2.1.3. Shall acquire the repair and parts manuals within 60 days of the acquisition of a new lift.

      4.2.1.4. If buying used equipment, shall work with Risk Management and Safety to ensure that an annual inspection is done on the lift prior to placing the unit in service.

      4.2.1.5. Shall work with Risk Management and Safety to arrange for the manufacturer or approved vendor to provide initial aerial lift training and “Specific Lift Familiarization Training” to the department’s operators prior to use of the lift.

      4.2.1.6. Shall ensure that all employee operators of the lift review the operator’s manual and sign the acknowledgment form (Appendix B) prior to initial use of the lift.

      4.2.1.7. Shall appoint an individual within the Department who will be the point of contact with Risk Management and Safety and employees concerning lift safety.

      4.2.1.8. Shall repair the lift as necessary.
4.2.2. Shall ensure that workplace inspections and pre-start inspections are conducted prior to use of an aerial lift. Annual inspections are performed on the lift in accordance with the manufacturer’s recommendations and this procedure. Contacts Risk Management and Safety to schedule an annual inspection.

4.2.3. Shall ensure that the pre-start inspection form (Appendix C) is completed prior to use. In addition, if the lift is to be moved, the Department shall utilize the workplace inspection form found in Appendix D.

4.2.4. When safety-related concerns have been discovered, either through annual inspections, pre-start inspections, or at any other time, the lift shall be taken out of service and locked and tagged out until the defects found have been repaired.

4.2.5. Shall ensure that operators receive lift specific familiarization training from competent operators/trainers that have been authorized by Risk Management and Safety. This includes when renting and/or purchasing an aerial lift. This training shall be documented and the original training documents provided to Risk Management & Safety. All employees involved in the training along with the instructor shall sign the form found in Appendix A.

4.2.6. Shall ensure that no personnel operate an aerial lift if they have not completed both the classroom and hands on aerial lift training on the specific lift that they will be operating.

4.2.7. Shall give operators the authority to lower the lift at any time if they have any concerns for their safety. Operators have the authority to terminate work activities when using an aerial or scissor lift.

4.2.8. If selling, donating, or destroying lifts, prior to the donation, sale, or destruction of an aerial platform or scissor lift, the donating or selling department shall contact Risk Management & Safety to ensure that appropriate steps are taken.

4.3. Employee/Operator Responsibilities

4.3.1. Complete the aerial lift training prior to operating an aerial lift.

4.3.2. Operators of aerial platform and scissor lifts shall review the operator’s manual for all lifts that they use prior to the initial lift use. Documentation of this shall be completed using the “Operating Manual Acknowledgement Form” found in Appendix B of this program.

4.3.3. Prior to operation, shall know and understand the following:

4.3.3.1. How to safely operate the lift.

4.3.3.2. Hazardous conditions which jeopardize safety.

4.3.3.3. All control features of the lift.

4.3.3.4. All placard warnings.

4.3.3.5. All safety devices on the lift.

4.3.3.6. Where to locate the user manual.
4.3.3.7. Who is permitted to operate or ride on the lift.

4.3.4. Perform Pre-Start Inspections.

4.3.5. Perform Workplace Inspections.

4.4. Risk Management and Safety Department’s Responsibilities:

4.4.1. Annually audit this program and revise it as necessary.

4.4.2. Ensure that initial training is provided to all lift operators and users that have been entered into the Aerial Platform and Scissor Lift program.

4.4.3. Maintain training records for approved operators and users of aerial platforms and scissor lifts.

4.4.4. Approve trainers that carry out the specific lift familiarization training.

4.4.5. Provide technical support to departments and employees when questions or concerns arise with regard to aerial platform and scissor lift safety.

4.4.6. Maintain a database and tracking system for all aerial platform and scissor lifts and operators through the cooperation of the University departments.

4.4.7. Conduct periodic audits to ensure that the annual, frequent, and pre-start inspections are being completed appropriately, maintenance is being completed at the proper intervals, training is completed for all operators, and all records are being maintained properly.

4.4.8. Ensure that a contract agreement is in place with a qualified contractor to conduct the annual inspections, frequent inspections, and maintenance programs and that the inspections take place on the appropriate scheduled basis.

4.4.9. Serve as an approval authority for any lift rentals or lift purchases on campus to ensure that the procedures outlined in this procedure are implemented. With the purchase or rental of a lift, Risk Management and Safety shall ensure that within sixty (60) days of the acquisition, the manufacturer is provided the full name and address of the buyer along with the model and serial number of the lift acquired.

4.4.10. Serve as the point of contact if any department experiences any problems with a lift, and coordinate the needed service on that lift.

5. Inspections

5.1. Pre-Start Inspections

5.1.1. A pre-start inspection shall be completed prior to each day’s use or at the beginning of each shift that the aerial platform lift is used, whichever comes first. A visual inspection and functional test that includes the following criteria shall be completed:

5.1.1.1. Operating and emergency controls

5.1.1.2. Safety devices.
5.1.1.3. Personal protective devices.
5.1.1.4. Air, hydraulic and fuel system leaks.
5.1.1.5. Cables and wiring harness.
5.1.1.6. Loose or missing parts.
5.1.1.7. Tires and wheels.
5.1.1.8. Placards, warnings, control markings and operating manual(s).
5.1.1.9. Outriggers, stabilizers and other structures.
5.1.1.10. Guardrail system.
5.1.1.11. Other items specified by manufacturer.
5.1.1.12. If outdoors, a functioning, calibrated anemometer is attached to the platform.

5.2. All pre-start inspections shall be documented on the form provided in Appendix C. Each department shall identify a storage location for the completed pre-start inspection forms. The last month of inspections shall be kept on the lift in the designated storage location.

6. Workplace Inspections
6.1. Prior to operating an aerial lift, the operator shall visually inspect the area where the aerial lift will be used. The operator shall document the inspection on the Aerial Platform & Scissor Lift Workplace Inspection Form. This can be found in Appendix D.
6.2. The workplace shall be inspected for hazards such as, but not limited to:
   6.2.1. Drop-offs or holes
   6.2.2. Slopes
   6.2.3. Bumps and floor obstructions
   6.2.4. Debris
   6.2.5. Overhead obstructions and high voltage conductors
   6.2.6. Hazardous locations and atmospheres.
   6.2.7. Inadequate surface and support to withstand all load forces imposed by the aerial platform lift.
   6.2.8. Wind and weather conditions.
   6.2.9. Presence of unauthorized people.
      6.2.9.1. To prevent unauthorized people from being in the area surrounding the aerial lift, the area shall be demarcated with, at a minimum, orange cones.
   6.2.10. Other possible unsafe conditions.
6.3. Departments may choose to create a two-sided inspection form, with the Aerial Platform & Scissor Lift Pre-start Inspection Form on one side and the Aerial Platform & Scissor Lift Workplace Inspection Form on the other side.

7. Annual Inspections
7.1. An annual inspection shall be performed on all aerial platforms and scissor lifts every twelve months (no later than 13 months from the date of the prior annual inspection). The inspection shall be performed by a qualified mechanic who is authorized to perform maintenance duties on
the lift. An approved vendor shall be contracted through Risk Management & Safety with the cooperation of the department who owns the lift. The contractor’s inspection shall include all items specified by the manufacturer for an annual inspection.

8. Frequent Inspections
8.1. A frequent inspection (also referred to as a periodic inspection) shall be performed on all aerial platform and scissor lifts at a frequency consistent with the manufacturer’s recommendations.
8.1.1. In the absence of recommendations a frequent inspection shall take place when a lift has not been in operation for 90 days or has been in use for 150 hours.
8.2. The inspection shall be performed by a qualified mechanic who is authorized to perform maintenance duties on the lift.
8.3. An approved vendor shall be contracted through Risk Management & Safety, with the cooperation of the Department who owns the lift. The contractor’s inspection shall include all items specified by the manufacturer for a frequent inspection.

9. Maintenance
9.1. All maintenance that is performed on aerial lifts shall be performed by trained and experienced professionals. The owning or renting Department shall make arrangements with an approved vendor/contractor with the input of Risk Management and Safety.

10. Battery Charging and Fueling
10.1. Battery charging and fueling of aerial platform or scissor lifts shall be done in a non-hazardous environment with adequate ventilation.
10.1.1. A minimum of a 10 lb. ABC fire extinguisher shall be available within 20 feet of a charging or fueling station.
10.1.2. If applicable, the engine shall be shut down while fuel tanks are being filled.

11. Standard Procedures
11.1. To ensure safe practices, the following general procedure shall be used when an authorized employee operates an aerial platform lift:
11.1.1. Reference the prior inspection sheet and check for any deficiencies that may have been noted. If any deficiencies were noted but not remedied, do not use the lift and tag the lift out of service.
11.1.2. Aerial lifts shall not be used as a crane or material lifting mechanism.
11.1.3. Aerial lifts shall not be operated from a position on trucks or trailers.
11.1.4. Reckless or stunt driving is prohibited.
11.1.5. Employees may ride on a lift with an approved operator as long as the lift is approved to carry more than one person. They are
12. Fall Protection.
   12.1. Fall protection shall be worn at all times when operating an aerial lift and scissor lifts, as long as an approved anchor point is installed on the lift.
   12.2. For fall protection requirements, see the Risk Management and Safety Fall Protection Procedure.

13. Hard Hats
   13.1. Hard hats shall be worn at all times when operating an aerial lift and scissor lifts.
   13.2. Exceptions to this requirement must be arranged with Risk Management and Safety.

14. The Use of Forklifts as Aerial Lifts
   14.1. See the Notre Dame Forklift Safety Program for the requirements to use a forklift as an aerial lift.

15. Contractors
   15.1. Contractors shall not use University owned equipment. If an aerial lift or scissor lift is necessary, it shall be provided by the contractor. The contractor shall also provide a trained operator.
   15.2. It is the responsibility of the contracting department to verify that the operator has received appropriate training to operate the lift.

16. Weather Hazards
   16.1. Operation of aerial lifts is prohibited when wind speeds reach 28 mph or more, when there is a wind warning in effect of 28 mph or more, when the nearest lightning strike is within 10 miles, when thunder is heard, and/or when thunder storm warnings are issued.
   16.2. When lifts are used outdoors, weather conditions shall be continuously monitored through a real time weather monitoring service source, such as WeatherBug. Weather conditions shall be documented on the Aerial Platform & Scissor Lift Workplace Inspection Form (Appendix D).

17. Training Program
   17.1. Classroom safety training:
       17.1.1. All operators of aerial platform lifts shall attend an aerial platform and scissor lift safety training class sponsored by Risk Management & Safety prior to using, being a passenger on, or operating a lift. The contents of the training shall include the following:
           17.1.1.1. Purpose and use of manuals and where they shall be located.
17.1.1.2. Pre-start inspection process.
17.1.1.3. Identification of malfunctions and problems.
17.1.1.4. Factors affecting stability.
17.1.1.5. Purpose of placards and decals.
17.1.1.6. Workplace inspections.
17.1.1.7. Safety rules and regulations.
17.1.1.8. Authorization to operate.
17.1.1.9. Operator warnings and instructions.
17.1.1.10. The requirements of fall arrest systems for aerial platform and scissor lifts.
17.1.1.11. The use of wind monitoring equipment, including the lift anemometer for outside lift use, and reinforcement of the operator’s authority to come down from the lift if they have any safety concerns.

17.1.2. All operators of aerial platform and scissor lifts shall attend a “Specific Lift Familiarization Training” session that is specific to the make and model of lift that they will be operating. The selection of the trainer shall be approved by Risk Management & Safety. Successful completion of both the classroom and Specific Lift Familiarization portions of the training authorizes an employee to use the aerial platform or scissor lift.

17.1.3. All operators and passengers shall complete the complyND Fall Protection training prior to operating or riding on a lift.

17.1.4. Re-training shall take place:
17.1.4.1. If an operator has been involved in an incident involving an aerial lift. The operator is prohibited from operating a lift until they have been re-trained.
17.1.4.2. If they have been observed operating the lift in an unsafe manner. This will include both the classroom and lift specific familiarization sessions.
17.1.4.3. Three (3) years after initial training.

18. Records Retention
18.1. Training records shall be maintained by Risk Management and Safety for a period of five (5) years.
18.2. The following records shall be maintained by each department who owns an aerial platform lift:
18.2.1. Workplace inspection documents shall be maintained for a period of the current plus one year.
18.2.2. Pre-start inspection documents shall be maintained for a period of the current plus one year.
18.2.3. Annual inspection documentation shall be maintained for the entire ownership of the lift.
18.2.4. All maintenance performed on the lift shall be maintained for the entire ownership of the lift.
18.2.5. All operators’ manual acknowledgement forms shall be maintained for the entire ownership of the lift.
### Revision History Table

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Appendix A
UND Aerial Platform or Scissor Lift Certification Form
Specific Lift Familiarization Training

This form documents the OSHA-Required Aerial Platform or Scissor Lift training that is performed by an approved, competent person. Risk Management & Safety shall approve the trainer which is based on his/her experience with the particular lift or his/her safety training experience. The training may also be performed by the lift manufacturer’s or vendor’s appointed representative or through video that is provided by the manufacturer, specific to the particular lift. Each operator shall be trained on each aerial platform or scissor lift that he/she operates. The Specific Lift Familiarization Training shall consist of a review of the following items:

A. All safety placards and warnings
B. All switches, drive mechanisms, adjustments, and controls (both lower and upper controls)
C. The functional operation of the lift
D. The use of the outriggers or stabilizing equipment
E. All gauges, horns, and lights
F. Proper fueling and/or battery charging procedures
G. Inspections and the inspection process

Aerial or Scissor Lift: __________________________
Lift Manufacturer  Model   Serial #

I certify that I have met with the trainee identified below and have reviewed the operations of the specific lift identified above and made myself available to answer any questions he/she may have had with regards to the operation of this lift.

_______________________  _______________________  __________
Print Trainer’s Name  Signature of Trainer    Date

I certify that I have met with the trainer identified above and that he/she has reviewed with me the operations of the specific aerial platform or scissor lift identified above. I was given an opportunity to ask questions which, if any, were answered to my satisfaction and that I now have the necessary understanding of operations of this lift. I am also certifying that I have received general training on the safe operation of aerial platform or scissor lifts through the Risk Management & Safety Department which covers responsibilities, inspections, platform stability, precautions, safety considerations, standard operating procedures, and other related safety concepts. I have reviewed the operator’s manual for this lift and have been given the opportunity to ask questions that I may have had.

_______________________  _______________________  __________
Print the Trainee’s Name  Signature of Trainee   Date

Trainer’s Department or Company Name __________________________________________
Appendix B
Operating Manual Acknowledgement Form

By signing this document, I am certifying that I have received a copy of the operations manual for the aerial platform lift shown below. Upon training and authorization by my department, I am expected to operate this lift. I understand that it is my responsibility to review and understand the safe operation of this aerial platform or scissor lift based on the training I receive and the manufacturer’s recommendations. I understand that if, at any time, I have any questions regarding the information found in the user’s manual, I can contact Risk Management and Safety, my supervisor, or the manufacturer to obtain answers.

Aerial Lift Make__________________________  Aerial Lift Model ________________

Name (print)____________________________  Department ________________

User/Operator’s name (sign)__________________________ Date ____________
Appendix C
Aerial Platform & Scissor Lift Pre-Use Inspection Form

The pre-start inspection shall be performed prior to each day’s or shift’s use of the aerial platform lift by an authorized and trained operator of the lift. Documentation of the inspection shall be maintained by each department, with a copy of the most recent inspection document stored on the lift.

Check off the items that have been inspected or mark the N/A box if the item does not apply to the lift being inspected. Place any comments in the space provided below. If there are any of these items that are not satisfactory, remove the lift from service until the item is corrected.

Department lift belongs to: ______________________________________________________

Make of lift:____________________ Model of lift:__________ Serial #: __________

Inspector’s Name____________________________ Date of Inspection __________

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<th>Not Okay</th>
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<td>Outriggers/Stabilizers</td>
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<td>Guardrail system and locking gate</td>
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Comments:____________________________________________________________________
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Inspector’s Signature____________________________ Date __________

Approval Date: 3/7/2019
Aerial Platform and Scissor Lift Procedure (Safe010)
Review Date:       Page 12 of 13       Owner: RMS/Director
Appendix D
Aerial Platform & Scissor Lift Workplace Inspection Form

The workplace inspection shall be performed prior to using the aerial platform lift. One inspection may be performed for multiple tasks taking place in a single room/space per day. The workplace inspection shall be performed by the individual who will be using the lift. Documentation of the inspection shall be maintained by each department and uploaded to Google Drive on a monthly basis.

Check off the items that have been inspected and abate any safety issues that were identified prior to using the lift. Place any comments in the space provided below.

Department lift belongs to ____________________________________________

Building/Space name or room number where lift will be used __________________________

Inspector’s Name ___________________________ Date of Inspection _____________

Item observed ___________________________ Date of Inspection _____________ Completed

• Drop-offs or holes.................................................................
• Slopes.............................................................................
• Bumps and floor obstructions...........................................
• Debris..............................................................................
• Overhead obstructions and high voltage conductors...........
• Hazardous locations and atmospheres............................
• Inadequate surface and support to withstand all load forces imposed by the aerial platform lift.
• Wind and weather conditions if being used outdoors........
  -Wind readings & forecasts indicate <28 mph
  -No lightning visible or forecasted
  -No other severe weather forecasted

Do not operate lift when winds reach 28 mph or more, when a wind warning is in place of 28 mph winds or more, when lightning is observed, or thunderstorm warnings are in effect.

Wind speed: _____________ Lightning distance (mi): _____________

Thunder heard: Yes No Thunder storm warning: Yes No

• Presence of unauthorized people..........................................
• Other possible unsafe conditions...........................................

Inspector’s signature_______________________________________ Date _____________