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Applicable OSHA Standards: 29 CFR 1926.453 and 1910.67

1. Purpose

- 1.1. This program establishes the minimum requirements for the safe operation of aerial lifts by Absolute Pipeline Maintenance & Consulting and contractor personnel in a Company workplace.
- 1.2. This program also establishes requirements for the training and certification of personnel who are authorized by the Company to operate aerial lifts; and requires that such training, certification and authorization take place BEFORE individual employees or contractor personnel perform any type of operation involving the use of aerial lifts at a work location. This will be done to prevent accidents, injuries and damages caused by the unsafe operation of this equipment.

2. Scope

- 2.1. Company and contractor personnel designated under these procedures will be instructed in the safety significance, priority, rules and safe work practices for safe operations of aerial lifts.
- 2.2. Each new or transfer-affected employee who is required to operate aerial lifts in the workplace will be trained, certified and authorized by the Company in the manner established by this program.

3. Responsibilities

- 3.1. This program establishes specific responsibilities for designated personnel. As the individual who has ultimate authority over all operations in a Company workplace or job site, the Site Supervisor is responsible for ensuring that this Aerial Lift Safety program is implemented as explained herein.
- 3.2. The Site Supervisor will designate individuals within the Facility organization to assist in this implementation. Delegations include:
 - 3.2.1. Department supervisors will be responsible: for initial proficiency training for the operation of aerial lifts; for authorization of specific individuals who are determined by the supervisor to be trained and proficient in aerial lift operations; and for implementation of all Aerial Lift Safety policies and procedures established under this program throughout their respective departments and areas of supervisory responsibility.
 - 3.2.2. Individuals who have demonstrated to their supervisor competency to operate aerial lifts and scissor lifts to which they will be assigned to do work will be required to successfully complete Aerial Lift Safety Training presented by the Company Safety Representative.

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3.2.3. Department supervisors may designate specific personnel under their management authority to assist in the implementation of these responsibilities.

3.2.4. The Company Safety Representative is responsible for either providing or obtaining specific safety training to personnel who have been designated by department supervisors to serve as crane and hoist operators. The manner of individual safety training, testing and operator observation will be as established by this program.

4. Aerial Lift Specifications

4.1. Aerial lifts acquired for use on or after January 22, 1973 will be designed and constructed in accordance with American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2-1969, including appendix.

4.2. Aerial lifts acquired before January 22, 1973 which do not meet these requirements will not be used unless they have been modified and conform to applicable design and construction requirements of ANSI A92.2-1969.

4.3. When aerial lift equipment has an obstructed view to the rear, the vehicle will have either a reverse signal alarm that is audible above the surrounding noise level or, an observer will be utilized to signal the operator when it safe to back up.

5. Safety Training

5.1. Only trained and authorized operators will be permitted to operate aerial lifts. Methods will be devised to train operators in the safe operation of this equipment. This training will include:

5.2. Information about federal Occupational Health and Safety (OSHA) regulations contained in 29 CFR-1910.67 (Vehicle-mounted elevating and rotating work platforms).

5.2.1. Basic principles and safe work procedures about aerial lifts.

5.2.2. Pre-work or pre-task operator inspection procedures for aerial lifts.

5.2.3. Safe work procedures for utilization of aerial lifts by authorized personnel.

5.2.4. Safe operations procedures regarding aerial lift operations in proximity to other personnel, pedestrians, electrical sources, obstructions and other situations that have the potential to present hazards or cause complications to the task.

5.2.5. Aerial lift and other related safety procedures that pertain to specific departments at the Facility.

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5.2.6. Recognizing hazards that specifically relate to aerial lift operations.

5.3. Individual Participants in Aerial Lift Safety Training will be given written materials that follow information presented during Classroom Instruction, and will complete a written test given immediately following Classroom Instruction. To successfully complete this safety training, Participants will pass this test with a score that is acceptable to the Company Safety Coordinator.

6. Certification Process

6.1. Basic Competency at Aerial Lift Operations: Determined by department supervisor after sufficient direct observation and, as required, basic training on the operation of aerial lift so that, in the opinion of the department supervisor, the individual Operator is ready to complete the Safety Training requirements.

6.2. Safety Training Classroom Instruction: This is the portion of the certification process involving a Safety Trainer designated by the Company Safety Coordinator. This Trainer will present Classroom Instruction and then give each Class Participant a written test to help confirm basic understanding of the information presented. The Trainer will issue written certification for each Participant who successfully completes the Classroom Instruction and passes the Test (at a minimum score determined by the Safety Coordinator).

6.3. Direct Observation for Certification: This will be conducted by the instructor or someone specifically designated by the Safety Coordinator. The Site Supervisor will concur with the certification of each individual Powered Lift Operator. Operators certified by the Company will be issued a written certification that identifies them as a Company-certified Aerial Lift Operator.

7. Certification Documentation

7.1. The Company will use written documentation of a certificate, wallet card and / or badge to readily identify individuals who are certified to operate specified types of powered equipment.

7.2. Operators of aerial lifts, who are designated and authorized by their department supervisor and have successfully completed Aerial Lift Safety Training as specified in this program, will be issued such documentation to be worn or carried on their person when using this equipment in a Company workplace.

8. Qualifications of Aerial Lift Operators

8.1. Only trained and authorized persons will be permitted to operate aerial lifts. Operators of aerial lifts will be qualified as to visual, auditory, physical, and mental ability to operate the equipment safely.

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- 8.2. Only those employees determined by the department supervisor to be competent by reason of training and experience to operate aerial lifts will be permitted to operate such equipment. Exception: Employees being trained and supervised by a designated person may operate such machinery and give signals to operators during training.
- 8.3. No employee known to have defective uncorrected eyesight or hearing, or to be suffering from heart disease, epilepsy, or other ailments which may suddenly incapacitate him, will be permitted to operate an aerial lift.
- 8.4. The primary responsibility of the operator is to use aerial lifts safely following the instructions given in the training program.
- 8.5. Unsafe or improper operation of an aerial lift can result in: death or serious injury to the operator or others; damage to product, facilities or other property.

9. General Requirements of Operation for Aerial Boom Lifts

- 9.1. Operators will be trained and authorized in accordance with this program before they are permitted to use aerial lift equipment.
- 9.2. A malfunctioning lift will be shut down until repaired.
- 9.3. The controls will be plainly marked as to their function.
- 9.4. Lift controls will be checked and tested each day prior to use to determine that they are in safe operating condition.
- 9.5. All personnel in the platform will wear an approved safety harness with lanyard attached to the platform attachment point.
- 9.6. The manufacturer's specified load limits for booms and baskets will not be exceeded.
- 9.7. Instruction on warning placards must be legible.
- 9.8. Aerial lifts will be used only as intended by the manufacturer. Lifts will not be "field modified" for uses other than those intended by the manufacturer unless such modifications have been approved and certified by the manufacturer or an equivalent authority.
- 9.9. Aerial lifts will not be used near electric power lines unless the lines have been de-energized or adequate clearances are maintained. For electrical lines rated 50 kV or below, the minimum clearance distance between the lines and any part of the lift or any extension is 10 feet. A safe distance of 10 to 35 feet or more between the lift and power lines will be determined as appropriate to allow for swaying power lines and/or platform movement.

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- 9.10. Employees using aerial lifts will be instructed on how to recognize and avoid unsafe conditions and hazards.
- 9.11. Ground controls will not be operated unless permission has been obtained from personnel in the platform (except in case of emergency).
- 9.12. Daily inspection of the area lift will be performed.
- 9.13. Personnel will always stand on the floor of the platform (not on boxes, planks, railing, or other devices).

10. **Driving/Towing**

- 10.1. Always post a lookout when driving in areas where vision is restricted.
- 10.2. Assure that machine is in stowed position and turntable is secured when towing.
- 10.3. Beware of clearances when traveling or towing.
- 10.4. Always position boom in line with direction of travel.
- 10.5. Always secure turntable prior to any extended traveling.
- 10.6. Keep your eyes and mind fixed on the direction of travel.
- 10.7. Do not permit personnel on machine or in platform when towing.
- 10.8. Machine must be mechanically assisted when traveling grades exceed 15 degrees.
- 10.9. Do not travel or drive machine on soft or uneven surfaces as tipping can occur.
- 10.10. Assure steer/tow selector valve pulled out; drive hubs disconnected prior to starting tow operations. Special Note: Towing permitted only for emergency travel on job site. No highway towing permitted.

11. **Operation**

- 11.1. Maintain safe clearance from electrical lines and apparatus. You must allow for platform sway and rock or sag in electrical lines.
- 11.2. This machine is not electronically insulated.
- 11.3. You must maintain a clearance of at least ten feet between any part of the machine or its load and any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance will be given for each additional 30,000 volts.

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- 11.4. Allow only persons who are authorized and qualified to operate the machine. These are individuals who have demonstrated that they understand proper operation maintenance of the unit.
- 11.5. Do not mechanically block the platform foot switch.
- 11.6. Do not use the boom for any purpose other than positioning personnel (people) and their tools and equipment.
- 11.7. Check clearances above and on sides and bottom of platform when raising, lowering, swinging and telescoping boom.
- 11.8. Check tail swing (counterweight) clearance before swinging turntable.
- 11.9. Keep mud, oil, grease and slippery substances cleared from your footwear and/or the platform deck.
- 11.10. To avoid falling, use extreme caution when entering and leaving the platform. Enter and exit through gate only.
- 11.11. Know your weight (people and tools). Do not exceed manufacturer's rated platform capacity. Refer to capacity indicator, on boom or mounted in platform control console.
- 11.12. Do not operate a malfunctioning machine. If a malfunction occurs, shut down machine and notify proper authorities.
- 11.13. Do not allow ground personnel in areas around and under the raised platform.
- 11.14. Approved hard hats will be worn by all operating and ground personnel.
- 11.15. Make sure machine is positioned on a firm, level, and uniform supporting surface before raising or extending the boom, If not, tipping can occur.
- 11.16. Read and obey all warnings, cautions, and operating instructions on the machine and in the individual lift operation and safety manufacturer's manual.
- 11.17. Be familiar with locations and operation of all safety and override controls.
- 11.18. Machine should always be shut off when refueling. No smoking is permitted. Do not refuel during an electrical storm. Be sure that caps are closed and secure at all other times.
- 11.19. Do not attempt to free the machine by lifting it off the ground with the boom.
- 11.20. Do not attach wire, cable, or any similar items to a platform for lifting purposes.

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- 11.21. When riding in or working from platform, both feet must be firmly positioned on the deck floor. Do not sit or climb on rails or the edge of the basket.
- 11.22. Do not use ladders, boards or other component placed on the rails or deck floor to raise the working surface higher than the deck floor. This can compromise fall protection provided by the height of the railing or basket containment.
- 11.23. Always use a safety harness as fall protection when working in an aerial lift. Secure the harness lanyard to the proper attachment point on the platform -- NEVER to an adjacent object or structure.
- 11.24. Do not use the drive or telescope features of the machine to move either the machine or other objects.
- 11.25. Do not operate any machine on which danger, warning, caution or instruction placards or decals are missing or not readable.
- 11.26. Do not pull the machine or other objects by attaching wire, cable or similar means to the platform, then retracting and extending the boom.
- 11.27. Do not attempt to use the boom for crane functions.
- 11.28. Do not "walk the boom" to gain access to or leave the platform.
- 11.29. Do not slam the control lever through neutral to the opposite direction. Return lever to neutral, stop and then proceed.
- 11.30. Do not position ladders, steps, or similar items in the platform to provide additional reach for any purpose.
- 11.31. Always operate controls with slow, even pressure.
- 11.32. Stow the boom and shut off all power before leaving the machine.

12. Scissor Lifts

- 12.1. Pre-start Inspection
- 12.2. Conduct a walk around inspection at the beginning of each shift prior to using a scissor lift. This inspection should include the following:
 - 12.2.1. Check scissor end joints for cracks and broken weld points.
 - 12.2.2. Check the hydraulic cylinders, hoses and fittings.
 - 12.2.3. Check drive axles, wheels and hubs for loose, damaged or missing parts.

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- 12.2.4. Check tires for cracks, cuts, bulges and proper inflation.
- 12.2.5. Check the battery for cables that might be frayed or have broken insulation.
- 12.2.6. Make sure that the terminal posts are not loose on the battery.
- 12.2.7. Check for corrosion and cracking around the battery terminals.
- 12.2.8. On propane or diesel powered lifts, check the fuel tank for cracks, broken welds or any damage.
- 12.2.9. Checks on fuels systems should always be conducted outdoors, not indoors.
- 12.2.10. Make sure there is a fire extinguisher on hand, in the event of a fire.
- 12.2.11. Check outriggers, stabilizers and guardrails.
- 12.2.12. Read the rating capacity, and the placard.
- 12.3. After conducting the walk around inspection, test to make sure the lift is working correctly by elevating it from the ground controls. This test should be conducted for any lift that has been in service for three months or 150 hours. Any lift that has been out of service for three months or longer should be inspected by a qualified mechanic prior to use.
- 12.4. Control boxes should be readily accessible to the operator. If a control box is not permanently attached, its normal location should be clearly marked.
- 12.5. Check the controls prior to operation of the lift. The movement controls should automatically return to "off" or "neutral" when released. Upper controls should be protected against accidental operation from ground level. Ground level controls should have some type of device to prevent someone from operating the device from ground level while workers are in the lift, operating controls from the control box.
- 12.6. The operator must know the rating capacity.
- 12.7. The lift must be equipped with a capacity brake that will prevent it from moving while on a slope.

13. Training Specific to Scissor Lifts

- 13.1. All new employees whose job requires them to operate a scissor lift must be trained on the functions and hazards of the scissor lift prior to being authorized to operate one.

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- 13.2. Operators should always read the manufacturer's manual prior to his or her first use of the equipment.
- 13.3. Scissor lift operators must understand the concept of stability which includes factors such as height, weight and conditions.
- 13.4. Inspect the work area for hazards such as drop offs, bumps, debris or other obstacles on the floor.
- 13.5. Check for areas with high voltage or any overhead obstructions before proceeding with driving the scissor lift or raising or lowering the platform.
- 13.6. Be alert for any electrical hazard and always keep a distance of 10 to 35 feet between the lift and any power lines. Add more distance to account for swaying power lines and/or platform movement.

14. Fall Protection Relating to Scissor Lifts

- 14.1. Fall protection is mandatory when working on or operating a scissor lift. Follow these basic rules regarding fall protection while operating or working on a scissor lift.
- 14.2. Make sure that guard rails are in place.
- 14.3. Make sure you are tied off to the lift, not to an adjacent structure.
- 14.4. Do not place a load on the platform that is heavier than the capacity rating provided by the manufacturer and posted on the unit.
- 14.5. Ensure that all loads, including tools, are evenly distributed on the platform.
- 14.6. When driving the lift to the work site, make sure the route to the work area is not obstructed.
- 14.7. Watch out for other traffic on the job site.
- 14.8. Make sure pedestrians are at least 6 feet away from the lift.
- 14.9. Do not drive the lift on a slope or grade that exceeds the level indicated on the placard.
- 14.10. Do not drive the lift in a confined area, or in reverse, and do not operate at high speeds on a grade.
- 14.11. Yield the right of way if another lift or vehicle is traveling close by.
- 14.12. Position the lift chassis upon arriving at the work location.
- 14.13. Check the overhead, side and below to determine the clearance available when raising or lowering the lift.

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- 14.14. Do not climb on the scissor arms in order to get on the platform.
- 14.15. Do not stand on boxes, ladders, planks or railings on the platform.
- 14.16. Platforms must be within one foot of the adjacent structure before attempting to enter the structure.
- 14.17. Do not leave cords from power tools hanging of the platform.
- 14.18. The lift operator is responsible for all machine operations on the lift.
- 14.19. Before raising or lowering the platform, make sure other employees on the lift with you are aware that the platform is going to move. Check the equipment and structures before raising or lowering.
- 14.20. Retract the stabilizers and leveling jacks prior to moving the lift.