

Michigan Department of Energy, Labor & Economic Growth



Michigan Occupational Safety & Health Administration Consultation Education & Training Division

Onsite Consultation
Abatement Method Advice for:

AERIAL WORK PLATFORMS
Inspection Form
Significant Changes
Operator Test and Answer Sheet
MIOSHA Fact Sheet
Operator's Permit

Note: This handout is not inclusive of all standard rule requirements that apply to aerial work platforms.



Guide to Significant Changes to MIOSHA General Industry
Part 58. Aerial Work Platforms and
Part 5. Scaffolding

Effective June 18, 2008, two General Industry Safety Standards were revised; General Industry Part 58, Aerial Work Platforms, and Part 5, Scaffolding. The purpose of this document is to highlight the major changes in these standards for employers and employees that use this type of equipment. These revisions were made in order to create more consistency between construction and general industry protections and to increase regulation clarity. There are significant changes in provisions covering operator permits, training, inspections and fall protection. Should you require further assistance in understanding these changes you may contact MIOSHA Consultation Education and Training Division (517) 322-1809 or General Industry Safety and Health Division at (517) 322-1831.

GI Safety Standard Part 58. Aerial Work Platforms - Changes

The new Part 58 includes many new rules/requirements that were formerly only present in the Construction Safety Standard, CS Part 32. Aerial Work Platforms. Therefore, the name for GI Safety Part 58 has also been changed from “Vehicle Mounted Elevating and Rotating Platforms” to the new name “Aerial Work Platforms”. The requirements in the new GI Safety Part 5 eliminate some employer confusion that occurred in the past, when employers had to determine what type of work was being done in order to know which rules/requirements applied. The new GI Safety Part 58, also covers mobile elevating platforms and powered platforms which used to be covered under the old GI Safety Part 5. Scaffolding.

1. The scope has been changed:
 - a. Part 58 rules now apply: “.... to the construction, operation, maintenance, and inspection of (all) aerial work platforms with either manual or powered mobility.”
 - b. The old Part 58 scope said it covered: “....the safe operation and maintenance by the employer and the safe use by the employee of vehicle mounted elevating and rotating work platforms in, around and about a place of employment.
2. Rule 5802 is a completely new section describing the equipment covered: “...equipment that has a primary function of elevating personnel, together with their tools and necessary materials, on a platform, which is mechanically positioned.
3. In Rule 5802, there are several new references to four different ANSI standards that were not in the old Part 58. Copies of these ANSI Standards may be reviewed in the Standards Division.
 - a. ANSI A92.2 “Vehicle-Mounted Elevating and Rotating Aerial Devices”, 2002
 - b. ANSI A92.3 “Manually Propelled Elevating Aerial Platforms”. 2006
 - c. ANSI A92.5 “Boom-Supported Elevating work Platforms”, 2006
 - d. ANSI A92.6 “Self-Propelled Elevating work Platforms”, 1999
4. Part 58 also adopts all four ANSI Standards by reference as well as adopts MDOT Part 6. Temporary Traffic Control of the Manual on Uniform Traffic Control Devices for Streets and Highways was adopted by reference.
5. States that all of above Standards are available for public inspection at MIOSHA Standards Division

6. The following MIOSHA standards that apply to these operations are referenced.
 - a. [GIS Part 7. Guards for Power Transmission](#)
 - b. [GIS Part 21. Powered Industrial Trucks](#)
 - c. [GIS Part 53. Tree Trimming and Removal](#)
 - d. [GIS Part 74. Fire Fighting](#)
 - e. [CSHD Part 22. Signals, Signs, Tags and Barricades](#)
 - f. [CSHD Part 45. Fall Protection](#)

7. Changes/additions in Definitions:
 - a. Aerial Device
 - b. Authorized Person
 - c. Commercial Chassis
 - d. Exposed Power Line
 - e. Instability (definition deleted)
 - f. Mechanically Positioned
 - g. Qualified Person

Summary of Other New or Different Provisions:

- 1) Expands Employer responsibility: including a requirement to provide training by a *qualified person*.

- 2) Rules 5813, 5815, and 5817 are ALL NEW. These rules include expanded training and permitting requirements for operators of aerial work platforms.
 - a) Permits are valid for no more than 3 years and valid only for the employer issuing the permit.
 - b) Rule 5815 lists information that must be included on the operator's permits.
 - c) Rule 5815 requires that manufacturer's operating instructions and safety rules must be provided and maintained on site.
 - d) Rule 5817 specifies provisions for preoperational procedures and platform inspections and maintenance by the operator; i.e. all aerial work platforms must be visually inspected before it is used on each work shift and lists specific areas that must be inspected.
 - e) Additional requirements to check for hazards at the site before and during use; i.e. ditches, drop-off; holes; bumps and floor obstructions; debris; overhead obstructions; power lines, etc.
 - f) All unsafe items found during an inspection must be corrected before further use.
 - g) All platforms and ground controls must be operated to ensure that they perform their intended function.

- 3) Rule 5821, Construction Modification.
 - a) References newer ANSI Standards for construction and testing requirements.
 - b) Aerial Work Platforms must not be field-modified for uses other than those intended by the manufacturer unless the modification has been certified in writing by the manufacturer or other equivalent entity.

- 4) Rules 5823 and 5824 on Electrical ratings and Safety Factors and Yield Points are rescinded. These issues are covered in new sections of the new Part 58.

- 5) Rule 5825: Controls.
 - a) Expands this rule from 5 sub rules to 9 sub rules including:
 - i) New/expanded labeling requirements.
 - ii) Directional controls must return automatically to the off or neutral position.

- iii) Aerial work platforms must be equipped with emergency controls at ground level and must be capable of overriding platform controls.
 - iv) Rotating, shafts, gears, and other moving parts that are exposed to contact must be guarded and in compliance with GI Safety Part 7.
 - v) There must be an attachment point for fall protection devices.
 - vi) Rule 5830, New or Modified Aerial Devices and Stability Requirements is rescinded.
- 6) Rule 5831, Inspection, maintenance and testing – clarification and expanded requirements.
- a) Each aerial work platform must be inspected, maintained, repaired and kept in proper working condition in accordance with manufacturer’s instructions.
 - b) Aerial Work Platforms not in safe operating condition must be removed from service. Repairs to be made by an authorized person in accordance with manufacturer’s or owner’s operating, maintenance or repair manuals.
 - c) If aerial work platform is rated and used as an electrical insulating device, components must be tested for compliance of the rating per ANSI A92.2, 2002.
 - i) Tested not less than annually.
 - ii) Test reports must be written, dated, and signed and available to the Department.
 - iii) May not alternate the insulated portion of an aerial device in any manner that would reduce the insulating value.
 - iv) All danger, caution, and control marking and operational plates shall be legible and not obscured.
- 7) Rule 5832 is now titled, “Electrical Hazards” instead of the title, “Use” in the previous version of Part 58.
- a) Sub rules (1), (2), (4), and (5) have been all been changed with expanded requirements from the previous Part 58. The electrical hazards and protection requirements in these rules have all been either expanded or modified. Rule 5832 references other MIOSHA Standard requirements such as Part 53, Tree Trimming and Removal. Tables 1, 2, and 3 are essentially the same as the previous Part 58.
- 8) Rule 5833, Vehicles, Traffic Control.
- a) Increases requirements for aerial device movements
 - b) Requires adequate roadway clearances when working adjacent or over any roadway.
 - c) References MDOT and CSHD Part 22, Signals, Signs, Tags, and Barricades when in use near or adjacent to roadways.
- 9) Rule 5836, Fall Protection – ALL NEW.
- a) References CSHD, Part 45. Fall Protection.
 - b) Allows the use of a body belt with a restraint device with the lanyard and the anchor arranged so no fall hazard exposure.
 - c) Employee may not belt off to adjacent pole, structure, or equipment.
 - d) Provisions for exiting the platform ONLY where elevated work areas are inaccessible or hazardous to reach. May exit then with knowledge and consent of employer. Fall protected provided when exiting to unguarded work areas.
 - e) Employer must provide for prompt rescue in event of a fall OR assure that employees are able to self-rescue.

10) Rule 5839, Operating Procedures – ALL NEW.

- a) Aerial work platform must be used ONLY in accordance with manufacturer's or owner's operating instructions and safety rules.
- b) The designed rated capacity for a given angle of elevation may not be exceeded.
- c) A proximity warning device may be used in addition to other requirements.
- d) Cannot exceed rated load capacity.
- e) Guardrail system may not be used to support material, other work platforms or employee.
- f) Employees may not use railings, planks, ladders or any other device on the platform to achieve additional height.
- g) Specific requirements included for driving a platform while elevated.
- h) Outriggers or stabilizers, WHEN PROVIDED, used in accordance with manufacturer's instructions.
- i) Brakes shall be set and outriggers/stabilizers shall be positioned on pads or a solid surface.
- j) Can elevate work platforms only when on a firm and level surface or within slope limits.
- k) A vehicle-mounted aerial work platform must have its brakes set before elevating and wheel chocks must be installed before using it on an incline.
- l) Platform gates shall be closed while the platform is in an elevated position.
- m) Operator must ensure that the area surrounding the platform is clear of personnel and equipment before lowering the platform.
- n) Platform may not be positioned against another object to steady the platform.
- o) The aerial work platform may not be operated from a position on a truck, trailer, railway car, floating vessel, scaffold, or similar equipment.
- p) The boom or platform may not be used to move or jack the wheels off the ground unless designed for that purpose.
- q) If the platform or elevating assembly becomes caught or snagged by adjacent obstacles so that the control reversal does not free the platform, all employees shall exit before attempts are made to free the platform.
- r) Stunt driving and horseplay are prohibited.

11) Rule 5840 – ALL NEW. This contains Figures 1, 2, 3, and 4. These are diagrams of four different types of aerial work platforms.

GI Safety Standard Part 5. Scaffolding Changes

Major Changes/Differences:

- 1) Scope changed:
 - a) The new Part 5 applies ONLY to scaffolds and the use of material and equipment in conjunction with scaffolding around or about places of employment.
 - b) ALL of the following equipment are NOT covered by Part 5, but have been moved to Part 58, Aerial Work Platforms: Powered and manual mobile elevating platforms and self-propelled vehicle mounted elevating and rotating platforms.
- 2) Updates references to ANSI standards to match federal OSHA provisions.
- 3) Rule 408.10561 (1) Changed the title of an ANSI consensus standard to ASME consensus standard.

Aerial Work Platform Operators Test

(4 points for each correct answer)

Please circle the correct answer:

1. It is the employer's responsibility to provide which of the following under this standard
 - A. Training to the employees that will operate an aerial platform.
 - B. Maintain an aerial platform free of defects.
 - C. Insure preoperational inspections are done.
 - D. None of the above

2. An operator's permit must be renewed every
 - A. 1 year
 - B. 2 years
 - C. 3 years
 - D. none of the above

3. The minimum safe operating distance from energized power lines operating at less than 50 kv. is:
 - A. 2 ft.
 - B. 6 ft.
 - C. 10 ft.
 - D. none of the above

4. Modifications made to an aerial work platform must be certified in writing by the
 - A. employer
 - B. person making the modifications
 - C. The aerial platform manufacturer
 - D. the aerial platform trainer

5. The rated load capacity may be exceeded only
 - A. for the additional weight of tools
 - B. when additional personnel is needed for the task
 - C. never
 - D when additional counterweights are used to offset the added weight

6. When aerial work platforms are used in traffic areas, the following must be followed.
 - A. Part 6 of the Michigan manual on Traffic Control Devices
 - B. Construction Safety Standard Part 22 Signals, Signs, Tags and Barricades
 - C. General Industry standard Part 16 Accident Prevention Signs and Tags
 - D. All of the above

7. Directional controls shall do or have which of the following
 - A. return to neutral when released
 - B. be protected against inadvertent operation
 - C. a red emergency stop control on the panel
 - D. be clearly marked as to intended function

Please check one:

8. True False
The operator shall report defects to their supervisor.
9. True False
The operator shall read the aerial platform manufacturer's manual for operating and the safety rules as part of their training.
10. True False
A body belt shall only be used for fall protection on a platform with railings or a bucket.
11. True False
Only a ladder of 5 ft or less in length may be used from the aerial platform.
12. True False
All aerial work platforms shall have constant pressure emergency ground level controls.
13. True False
Any aerial work platform found not to be in safe operating condition shall be repaired within 1 work week.
14. True False
Part 58 covers all aerial work platforms except those manually elevated.

Please fill in the blanks:

15. An aerial work platform used for electrical work shall be tested _____ and the test report shall be in _____.
16. An employee is only allowed to exit an elevated work platform when the area is _____ or _____ to reach and only with the _____ and _____ of the employer and shall use proper _____.

Match the following definitions:

17. A. Authorized person
B. Qualified person
C. Qualified line clearance trimmer
D. Qualified lineman

_____ means an employee trained to work in proximity of energized power transmission and distribution lines.

_____ means a person who is approved and assigned to perform specific types of duties by the employer and who is qualified to perform those duties because of his or her training or experience.

_____ means a person who possesses a recognized degree, certificate, professional standing or skill and who, by knowledge, training, and experience, has demonstrated the ability to deal with problems relating to the subject matter, the work, or the project.

_____ means an employee trained and authorized to work on or near energized lines.

Aerial Work Platform Test Answer Sheet

(4 points for each answer)

1. A, B & C: Rule 5811; 5817;3203(1)(a); 3203(1)(c); 3208(1)
2. C Rule 5815(6);3207(5)
3. C Rule 5832; 3209 Table 1
4. C Rule 5821(7); 3205(2)
5. C Rule 5839(4); 3216(4)
6. A & B Rule 5833(6); 3212(6)
7. A, B, & D Rule 5825(2)(a, b, c); 3205(3)(a, b, c)
8. True Rule 5812(b); 3203(2)(b)
9. True Rule 5815(1)(b); 3207(8)(b)
10. False Rule 5836(2); 3214(2)
11. False Rule 5839(7); 3216(7)
12. True Rule 5825(6); 3205(4)
13. False Rule 5831(1)(b); 3206(b)
14. False Rule 5802(b); 3202(1)(b)
15. Annually Rule 5831(c)(i); 3206(c)(i)
Writing Rule 5831(c)(ii); 3206(c)(ii)
16. Inaccessible, hazardous, Rule 5836(4); 3214(4)
knowledge, consent,
fall protection
17. C Rule 5803(4); 3204(4)
A Rule 5804(8); 3204(12)
B Rule 5804(6); Not in 32
D Rule 5804(7); Not in 32



MIOSHA Fact Sheet

Using Aerial Lifts

The major causes of injuries and fatalities involving aerial lifts are falls, electrocutions, and collapses or tip-overs. Aerial devices include boom-supported aerial platforms, such as cherry pickers or bucket trucks, aerial ladders and vertical towers, scissor lift and mobile scaffolds. Safe work practices for aerial lifts include:

- Ensure that workers who operate aerial lifts are properly trained and tested in the safe use of the equipment and issued a permit. Perform the required inspection of the equipment prior to use and repair any damage or defects affecting the safe operation before use. Conduct a job site or workplace survey of the area it will be operated in.
- Maintain and operate aerial lift according to the manufacturer's instructions and keep a copy with the lift. Always stand firmly on the basket floor. Do not sit or climb on the edge or rails of the basket. Never use planks, boxes or other items inside the basket to extend your reach.
- Ensure that all wheels of an elevated lift are on a solid base. Use outriggers, if provided. Set the brakes and use wheel chocks when on an incline. Do not exceed the load limits of the equipment. Allow for the combined weight of the worker(s), tools and materials.
- De-energize and lockout/tagout aerial lifts before performing any maintenance or repairs.

Working near Power Lines

Maintain a minimum clearance of at least 10 feet away from the nearest overhead line, this includes any conductive objects such as tools or other equipment. Always treat overhead lines as energized, even if they are down or appear to be insulated. Only qualified power line and communications workers and qualified line-clearance tree trimmers may work closer than 10 feet. Never lose awareness of the overhead hazard.

Traffic, or Caught-in Hazards

Establish and clearly mark a danger zone around the aerial lift. When subject to traffic follow the requirements in Part 6 of the Michigan Manual on Uniform Traffic Control Devices and Construction Safety Part 22 Signals, Signs, Tags and Barricades. Never move the equipment with workers in the elevated platform unless the equipment has been specifically designed for that operation. When positioning, be aware of fixed overhead hazards, such as structural members to prevent being caught between them and the aerial lift.

Fall Protection

Provide the proper type of fall protection based on the type of aerial lift being used and the working conditions. Do not allow workers to belt off to an adjacent pole, structure or equipment while working from an aerial lift.

SAMPLE PERMIT

Equipment Operator Permit

Employee: _____

I.D. No.: _____

Company: _____

Authorized to operate the following equipment:

General Industry

Part 21. Powered Industrial Trucks

- Fork Lift Truck
- Industrial Tractor
- Other: _____

Part 58. Aerial Work Platforms

- Boom Supported Elevating
- Manual Propelled Elevating
- Self-Propelled
- Vehicle Mounted

Date Tested: _____

Construction

Part 12. Scaffold Platforms

- Rough Terrain Truck

Part 13. Mobile Equipment

- Forklift Material Handling

Part 32. Aerial Work Platforms

- Boom Supported Elevating
- Manual Propelled Elevating
- Self-Propelled
- Vehicle Mounted

Operator Restrictions: _____

Date Issued: _____ Date Expires: _____ Issued By: _____

Training Certification / Equipment Operator Permit

Employee: _____

I.D. No.: _____ Shift: _____

Date Tested: _____

Date Permit Issued: _____

Expiration Date: _____

Restrictions: _____

DETACH

EMPLOYEE FILE

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