

New Installations - Buildings

WAC 296-870-600

Section Contents

IMPORTANT:

This section applies to permanent powered platform installations that meet **either** of the following:

- Were completed after July 23, 1990

or

- Have had major modifications done to an existing installation after July 23, 1990.



Definition:

A *new installation* is a permanent powered platform installation that was completed, or an existing installation that has had major modifications done, after July 23, 1990.



Note:

If affected parts of the building meet the requirements of the edition of American National Standard Institute/American Society of Mechanical Engineers ANSI/ASME A120.1, Safety Requirements for Powered Platforms for Building Maintenance, that was in effect when the powered platform installation was completed, they will be considered to meet the requirements of this section.



New Installations - Buildings

WAC 296-870-600

Section Contents

YOUR RESPONSIBILITY:

To make sure new powered platform installations meet these building requirements

Design	
WAC 296-870-60005	600-3
Stabilization systems	
WAC 296-870-60010	600-4
Intermittent stabilization system	
WAC 296-870-60015	600-5
Button guide stabilization system	
WAC 296-870-60020	600-7
Stabilization system using angulated roping and building face rollers	
WAC 296-870-60025	600-8
Cable stabilization	
WAC 296-870-60030	600-8
Electrical	
WAC 296-870-60035	600-9
Guarding roofs and other elevated areas	
WAC 296-870-60040	600-10
Moving equipment	
WAC 296-870-60045	600-11
Repair and maintenance	
WAC 296-870-60050	600-11
Communications	
WAC 296-870-60055	600-11



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60005

Design

You must

- Make sure structural supports, tie-downs, tie-in guides, anchoring devices and any affected parts of the building included in the installation are designed by, or under the direction of, a registered professional engineer experienced in such design.
- Make sure affected parts of the building are capable of sustaining all the loads imposed by the equipment.
- Make sure exterior installations are capable of withstanding prevailing climatic conditions.
- Make sure the affected parts of the building allow employees to use the equipment without being exposed to a hazardous condition.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60010

Stabilization systems

You must

- Make sure the exterior of each building is provided with at least one of the following stabilization systems:
 - Continuous tie-in guides
 - Intermittent stabilization system
 - Button guide stabilization system
 - System using angulated roping and building face rollers
 - System equivalent to a continuous tie-in guide system



Exemption:

- Tie-in guides may be eliminated for not more than 75 feet (22.9 m) of the uppermost elevation of the building if:
 - Using tie-in guides there isn't feasible due to building design**and**
 - Angulated roping is used that provides a stabilizing force of at least 10 pounds (44.4 n) under all conditions of loading.

You must

- Make sure embedded tie-down anchors, fasteners, and affected structures are corrosion-resistant.



Helpful Tool:

Typical examples of continuous external or indented mullion guide, intermittent tie-in, and button guide platform stabilization systems can be found in the Resources section of this chapter.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60015

Intermittent stabilization system



Note:

This system may be used with a continuous tie-in guide system on the same building as long as the requirements for each system are met.

You must

- Make sure an intermittent stabilization system:
 - Keeps the equipment in constant contact with the building

and

 - Prevents sudden horizontal movement of the platform.
- Make sure building anchors are located vertically so that:
 - The distance between anchors isn't more than 3 floors or 50 feet (15.3 m), whichever is less

and

 - Attaching the suspension ropes to the stabilizer ties won't cause the platform to move horizontally across the face of the building.
- Make sure the anchors are positioned horizontally on the building face so as to be symmetrical about the platform suspension ropes.
- Make sure building anchors:
 - Are easily seen by employees

and

 - Allow a stabilizer tie attachment for each of the platform suspension ropes at each vertical interval.

- Continued -



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60015

Intermittent Stabilization (continued)

You must

- Make sure building anchors that extend beyond the face of the building have no sharp edges or points.
 - Make sure building anchors don't interfere with the handling or operation of cables, suspension wire ropes and lifelines that may be in contact with the building face.
 - Make sure the building anchors and components can sustain, without failure, at least 4 times the maximum anticipated load applied or transmitted to them.
 - Make sure the building anchors and stabilizer ties can sustain the anticipated horizontal and vertical loads from winds specified for roof storage design which may act on the platform and wire ropes if the platform is stranded on the building face.
 - Make sure the minimum design wind load for each anchor is 300 pounds (1334 n) if 2 anchors share the wind load.
 - Make sure one building anchor and stabilizer tie can sustain the wind load if either:
 - The building anchors have different spacing than the suspension wire rope
- or**
- The building requires different suspension spacings on one platform.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60020

Button guide stabilization system

You must

- Make sure the guide buttons are:
 - Coordinated with the platform guide tracks and other platform-mounted equipment**and**
 - Located on the building so they properly engage the guide tracks mounted on the platform.
- Make sure 2 guide buttons engage each guide track at all times except for the initial engagement.
- Make sure guide buttons that extend beyond the face of the building have no sharp edges or points.
- Make sure guide buttons don't interfere with the handling or operation of cables, suspension wire ropes and lifelines that may be in contact with the building face.
- Make sure guide buttons, connections, and seals are either:
 - Able to sustain, without damage, at least the weight of the platform**or**
 - Are prevented by the guide tracks or guide track connectors from having the weight of the platform and its attachments transmitted to them.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60025

Stabilization system using angulated roping and building face rollers

You must

- Make sure a stabilization system using angulated roping and building face rollers does all of the following:
 - Keeps the equipment in continuous contact with the building face
 - Prevents sudden horizontal movement of the platform
 - Maintains a stabilizing force of at least 10 pounds (44.4 n) against the face of the building.
- Make sure the suspended portion of the equipment isn't used more than 130 feet (39.6 m) above a safe surface or ground level.

WAC 296-870-60030

Cable stabilization

You must

- Make sure hanging lifelines and all other cables not in tension are stabilized after the initial 200 feet (61 m) of vertical travel of the working platform and every 200 feet (61 m) thereafter.
- Make sure hanging cables which are in constant tension, other than suspended wire ropes, are stabilized after an initial 600 feet (183 m) of vertical travel of the working platform and at intervals of 600 feet (183 m) or less thereafter.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60035

Electrical

You must

- Make sure, when full load is applied to the equipment power circuit, that the building electrical wiring doesn't allow more than a 5 percent voltage drop from the building service vault voltage at any power circuit outlet used by the powered platform installation.
- Make sure the equipment power circuit is provided with a disconnect switch that's all of the following:
 - Able to be locked in either the "off" or "on" position
 - Conveniently located with respect to the primary operating area of the equipment to allow equipment operators access to the switch
 - Locked in the "on" position when the equipment is being used.
- Make sure the powered platform equipment power supply is an independent electrical circuit that remains separate from all other equipment within or on the building.



Exemption:

The equipment power circuit may be connected to the electrical circuit supplying power to hand tools used in conjunction with the equipment.



Note:

If the building is provided with an emergency power system, the equipment power circuit may also be connected to the emergency power system.



Reference:

Unless otherwise specified in this section, building electrical installations have to meet the requirements of Electrical, Part L, in the General Safety and Health Standards, Chapter 296-24 WAC.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60040

Guarding roofs and other elevated areas

You must

- Make sure employees working on a roof or other elevated working area 4 feet (1.2 m) or more above an adjacent safe surface are protected by a perimeter guarding system.



Reference:

Requirements for the perimeter guarding system are found in Guarding floor and wall openings and holes, WAC 296-24-750, found in the General Safety and Health Standards, Chapter 296-24 WAC.

You must

- Make sure the inboard face of the perimeter guard is:
 - Not more than 6 inches (152 mm) inboard of the inside face of a barrier such as the parapet wall or roof edge curb;**and**
 - Not more than 18 inches (457 mm) from the face of the building.
- Make sure an elevated track system that's designed to be traversed by carriage-supported equipment and located 4 feet (1.2 m) or more above an adjacent safe surface is either:
 - Provided with a walkway and guardrail system**or**
 - Has a working platform that can be lowered, as part of normal operations, to the lower safe surface.
- Make sure personnel have a safe way to access and to egress from the lower safe surface.



New Installations - Buildings

WAC 296-870-600

Rule

WAC 296-870-60045

Moving equipment

You must

- Make sure all carriages and carriage-supported equipment can be traversed to a safe area for storage and maintenance.
- Make sure operational areas for trackless type equipment have structural stops, such as curbs, to prevent equipment from traveling outside its intended travel area.

WAC 296-870-60050

Repair and maintenance

You must

- Make sure repair or major maintenance of parts of the building that provide primary support for suspended equipment doesn't affect the ability of the building to meet the requirements of this chapter.

WAC 296-870-60055

Communications

You must

- Make sure an effective 2-way voice communication system is provided between the equipment operators and persons stationed within the building.



Notes
