

# AMERICAN NATIONAL STANDARD

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## ANSI/ASSE Z359.6-2009 Specifications and Design Requirements for Active Fall Protection Systems

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Part of the Fall Protection Code

VERSION **3**



AMERICAN SOCIETY OF  
SAFETY ENGINEERS



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**American National Standard**

**Specifications and Design Requirements  
for Active Fall Protection Systems**

**Secretariat**

**American Society of Safety Engineers**  
1800 East Oakton Street  
Des Plaines, Illinois 60018-2187

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## **Foreword** (This Foreword is not a part of American National Standard Z359.6-2009.)

This standard, national in scope, was developed by an Accredited Standards Committee functioning under the procedures of the American National Standards Institute, with the American Society of Safety Engineers (ASSE) as secretariat. This standard establishes guidelines and minimum requirements for the development of the various components that would comprise a comprehensive managed fall protection program.

It is intended that every employer whose operations fall within the scope and purpose of the standard will adopt the guidelines and requirements detailed in this standard.

The need for this standard activity grew out of the continuing development of a series of fall protection-related standards. The focus is to provide guidance to designers of active fall protection systems. It should be noted, as in all Z359-series standards, that this standard applies to all occupational and non-occupational activities except those in SIC Division C (construction). It also is not intended to apply to sports activities such as mountaineering.

Neither the standards committee, nor the secretariat, states that this standard is perfect or in its ultimate form. It is recognized that new developments are to be expected, and that revisions of the standard will be necessary as the state-of-the-art progresses and further experience is gained. It is felt, however, that uniform guidelines for the design of active fall protection systems are very much needed and that the standard in its present form provides for the minimum criteria necessary.

The Z359 Committee acknowledges the critical role of design in influencing the use of proper fall protection equipment. Design deficiencies often increase the risk for employees who may be exposed to fall hazards: examples are (1) lack of rail systems to prevent falls from machines, equipment and structures; (2) failure to provide engineered anchorages where use of personal fall arrest systems are anticipated; (3) no provision for safe access to elevated work areas; (4) installation of machines or equipment at heights, rather than floor/ground level to preclude access to elevated areas; (5) failure to plan for the use of travel restriction or work positioning devices.

The Z359 Committee solicits public input that may suggest the need for revisions to this standard. Such input should be sent to the Secretariat, ASC Z359, American Society of Safety Engineers, 1800 E. Oakton Street, Des Plaines, IL 60018-2187.

This standard was developed and approved for submittal to ANSI by the American National Standards Committee on Standards for Fall Protection, Z359. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z359 Committee had the following members:

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## STANDARD REQUIREMENTS

### 1. SCOPE, PURPOSE, APPLICATIONS, EXCEPTIONS AND INTERPRETATIONS

#### 1.1 Scope.

**1.1.1** This standard is intended for engineers with expertise in designing fall protection systems. It specifies requirements for the design and performance of complete active fall protection systems, including travel restraint and vertical and horizontal fall arrest systems.

#### 1.2 Purpose and Application.

**1.2.1** This standard has been developed as a consensus document to provide uniform practice in the design of active fall protection systems. The intention is to provide design criteria for routine use and not to provide specific criteria for infrequently encountered problems which occur.

**1.2.2** This standard involves the application of the last option from the hierarchy of fall protection – active fall protection systems. Other options for employee protection should be considered prior to the employer selecting the use of an active fall protection system.

## EXPLANATORY INFORMATION

(Not part of American National Standard Z359.1)

**E1.1.1** *In most cases, the engineer should be a professional engineer. However, there are some exceptions where it is permissible per a local building code for an engineer who is not registered with a state or other governing body to perform engineering. It is strongly recommended that if this work is being performed by a consultant for a client, that the work be performed under the supervision of a professional engineer.*

**E1.2.2** *The ANSI/ASSE Z359.2 standard contains a hierarchy of fall protection (See Section 5.1). The first and preferred element of the hierarchy is eliminating fall hazards.*

*OSHA Instruction STD 1-1.13 states that "in situations where the safeguarding [through the use of physical barriers is] not applicable because employees are exposed to falls from an elevated surface other than a predictable and regular basis, personal protective equipment as required by 29 CFR 1910.132(a) or other effective fall protection shall be provided."*

*Furthermore, predictable and regular was defined in this document as:*

- a. At least once every 2 weeks, or*
- b. For a total of 4 man-hours or more during any sequential 4-week period (e.g., 2 employees once every 4 weeks for 2 hours = 4 man-hours per 4-week period).*