



AMERICAN NATIONAL STANDARD

*ANSI/ASSE A10.4-2004
Safety Requirements for
Personnel Hoists and
Employee Elevators—
American National Standard
for Construction and
Demolition Operations*

ANSI/ASSE A10.4-2004



AMERICAN SOCIETY OF
SAFETY ENGINEERS

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American National Standard
for Construction and Demolition Operations

Safety Requirements for Personnel Hoists and Employee Elevators

Secretariat

American Society of Safety Engineers

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Foreword (This Foreword is not a part of American National Standard A10.4-2004.)

This standard is one of a series of safety standards that have been formulated by the Accredited Standards Committee on Safety in Construction and Demolition Operations, A10. It is expected that the standards in the A10 series will find a major application in industry, serving as a guide to contractors, labor, and equipment manufacturers. For the convenience of users, a list of existing and proposed standards in the A10 series for Safety Requirements in Construction and Demolition operations follows:

- A10.2 Safety, Health, and Environmental Training (under development)
- A10.3 Powder-Actuated Fastening Systems
- A10.4 Personnel Hoists and Employee Elevators
- A10.5 Material Hoists (under development)
- A10.6 Demolition Operations
- A10.7 Transportation, Storage, Handling, and Use of Commercial Explosives and Blasting Agents
- A10.8 Scaffolding
- A10.9 Concrete and Masonry Construction
- A10.10 Temporary and Portable Space Heating Devices
- A10.11 Personnel and Debris Nets
- A10.12 Excavation
- A10.13 Steel Erection
- A10.15 Dredging
- A10.16 Tunnels, Shafts, and Caissons
- A10.17 Safe Operating Practices for Hot Mix Asphalt (HMA) Construction
- A10.18 Temporary Floor Holes, Wall Openings, Stairways, and Other Unprotected Edges
- A10.19 Pile Installation and Extraction Operations (under development)
- A10.20 Ceramic Tile, Terrazzo, and Marble Work
- A10.21 Proper Cleaning and Disposal of Contaminated Work Clothing
- A10.22 Rope-Guided and Nonguided Workers' Hoists
- A10.23 Back Injury Prevention Programs (under development)
- A10.24 Roofing (under development)
- A10.25 Sanitation in Construction (under development)
- A10.26 Emergency Procedures for Construction Sites (under development)
- A10.27 Hot Mix Asphalt Facilities
- A10.28 Work Platforms Suspended from Cranes or Derricks
- A10.29 Aerial Lifts in Construction (under development)
- A10.30 Workplace Security
- A10.31 Digger-Derricks
- A10.32 Fall Protection Systems for Construction Industry Users
- A10.33 Safety and Health Program Requirements for Multi-Employer Projects
- A10.34 Public Protection
- A10.35 High Pressure Hydro Blasting (under development)
- A10.36 Railroad Construction Safety (under development)
- A10.37 Debris Nets
- A10.38 Basic Elements of a Program to Provide a Safe and Healthful Work Environment
- A10.39 Construction Safety and Health Audit Program
- A10.40 Ergonomics in Construction (under development)
- A10.41 Equipment Operator and Supervisor Qualifications and Responsibilities (under development)
- A10.42 Rigging Qualifications and Responsibilities in the Construction Industry
- A10.43 Confined Spaces in Construction (under development)
- A10.44 Lockout/Tagout in Construction (under development)
- A10.45 Disaster Response Preparedness for Construction Workers (under development)
- A10.46 Hearing Loss Prevention (under development)
- A10.47 Highway Construction Safety (under development)

One purpose of these standards is to serve as guides to governmental authorities having jurisdiction over subjects within the scope of the A10 Committee standards. If these standards are adopted for governmental use, the reference of other national codes or standards in individual volumes may be changed to refer to the corresponding regulations.

Revisions: The A10 Committee welcomes proposals for revisions to this standard. Revisions are made to the standard periodically (usually five years from the date of the standard) to incorporate changes that appear necessary or desirable, as demonstrated by experience gained from the application of the standard. Proposals should be as specific as possible, citing the relevant paragraph number(s), the proposed wording, and the reason for the proposal. Pertinent documentation would enable the A10 Committee to process the changes in a more timely manner.

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Committee Meetings: The A10 Committee meets twice a year. Persons wishing to attend a meeting should contact the Secretariat for information.

Standard Approval: This standard was processed and approved for submittal to ANSI by the American National Standards Committee on Safety in Construction and Demolition Operations, A10. Approval of the standard does not necessarily imply (nor is it required) that all Committee members voted for its approval. At the time this standard was published, the A10 Committee had the following members:

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ANSI A10.4-2004

American National Standard Safety Requirements for Personnel Hoists and Employee Elevators for Construction and Demolition Operations

1. GENERAL

1.1 Scope.

1.1.1 This standard applies to the design, construction, installation, operation, inspection, testing, maintenance, alterations and repair of hoists and elevators that (1) are not an integral part of buildings, (2) are installed inside or outside buildings or structures during construction, alteration, demolition operations and (3) are used to raise and lower workers and other personnel connected with or related to the structure. These personnel hoists and employee elevators may also be used for transporting materials under specific circumstances defined in this standard.

1.1.2 This standard does not apply to the following:

- (1) Permanent elevators that are temporarily installed in the hoistways during the construction of buildings, and which incorporate a part of the permanent elevator that will be installed later.
- (2) Hoists for raising and lowering materials that have no provision for carrying personnel.
- (3) Manlifts of the counterbalanced and endless-belt types.
- (4) Mine hoists.
- (5) Wire-rope-guided or nonguided hoists.

1.2 Purpose. The purpose of this standard is to set forth minimum requirements intended to provide for the safety of life, limb and property of those engaged in occupations requiring the use of personnel hoists or employee elevators. The requirements of this standard are the minimum for that purpose.

1.3 Exceptions. In cases of practical difficulties, unnecessary hardships or new developments, the enforcing authority may grant exceptions to literal requirements of this standard. These exceptions may permit use of other devices or methods, but only when it is clearly indicated that equivalent safety and permanent installation are thereby secured.

2. REFERENCES

2.1 Related American National Standards.

The following publications or their most current issue supplements this standard:

American National Standard Requirements for Temporary Floor and Wall Openings, Flat Roofs, Stairs, Railings and Toeboards for Construction, ANSI A10.18.

American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ANSI/ASME A17.1.

American National Standard Building Code Requirements for Reinforced Concrete, ANSI/ACI 318-M-1983.

American National Standard Structural Welding Code, ANSI/AWS D1.1-90

American National Standard National Electrical Code, ANSI/NFPA 70

2.2 Other References.

Gear Materials and Heat Treatment Manual, AGMA 2004-B89

Methods for Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber, ASME D245-74

Fundamental Rating Factors and Calculation Methods for Involute Spur and Helical Gear Teeth, ANSI/AGMA 2001-C95

Design Manual for Cylindrical Wormgearing, ANSI/AGMA 6022-A88

Surface Durability (Pitting) of Spur Gear Teeth, AGMA 210.02

2.3 Referenced Standards. When any of the following American National Standards referred to in this document is superseded by a revision by the American National Standards Institute, the revision shall apply:

American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ANSI/ASME A17.1

American National Standard Building Code Requirements for Reinforced Concrete, ANSI/ACI 318-M-1983

American National Standard Methods of Static