

ANSI/ASSP A10.21-2018

Safety Requirements for Safe Construction and Demolition of Wind Generation/Turbine Facilities

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ANSI/ASSE A10.21 – 2018

**American National Standard
Construction and Demolition Operations**

**Safety Requirements for
Safe Construction and Demolition of
Wind Generation/Turbine Facilities**

Secretariat

American Society of Safety Engineers
520 N. Northwest Highway
Park Ridge, Illinois 60068

Approved April 20, 2018

American National Standards Institute, Inc.

American National Standard

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Foreword (This Foreword is not a part of American National Standard A10.21-2018.)

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.

- A10.1 Pre-Project & Pre-Task Safety & Health Planning
- 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
- 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 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 Roof and Floor Holes, Wall Openings, Stairways and Other Unprotected Edges
- A10.19 Pile Installation and Extraction Operations
- A10.20 Ceramic Tile, Terrazzo, and Marble Work
- A10.21 Safe Construction and Demolition of Wind Generation/Turbine Facilities
- A10.22 Rope-Guided and Non-Guided Workers' Hoists
- A10.23 Safety Requirements for the Installation of Drilled Shafts
- A10.24 Roofing – Safety Requirements for Low-Sloped Roofs
- A10.25 Sanitation in Construction
- A10.26 Emergency Procedures for Construction Sites
- A10.27 Hot Mix Asphalt Facilities
- A10.28 Work Platforms Suspended from Cranes or Derricks
- A10.29 Aerial Platforms in Construction (under development)
- A10.31 Digger-Derricks
- A10.32 Personal Fall Protection Used in Construction and Demolition Operations
- A10.33 Safety and Health Program Requirements for Multi-Employer Projects
- A10.34 Public Protection
- 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 Reduction of Musculoskeletal Problems in Construction
- A10.42 Rigging Qualifications and Responsibilities in the Construction Industry
- A10.43 Confined Spaces in Construction and Demolition Operations
- A10.44 Lockout/Tagout in Construction
- A10.46 Hearing Loss Prevention
- A10.47 Highway Construction Safety
- A10.48 Communication Structures
- A10.49 Control of Health Hazards

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.

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AMERICAN NATIONAL STANDARD A10.21 SAFETY REQUIREMENTS FOR SAFE CONSTRUCTION AND DEMOLITION OF WIND GENERATION/TURBINE FACILITIES

1. GENERAL

1.1 Scope. This standard establishes the minimum requirements for protecting the safety and health of persons involved in construction and demolition operations addressing utility-scale land-based wind generation/turbine facilities.

1.2 Purpose. The purpose of this standard is to establish minimum safety requirements and provide recommended best practices for the construction and demolition of wind energy projects.

1.3 Application. This standard is intended to serve as a guide to employers engaged in the construction or demolition of wind energy projects. It can also serve as a reference to regulatory agencies in whose jurisdictions wind energy projects may be built or demolished. This standard is intended to apply during the construction and demolition phases of wind energy projects, not during the development or operations phases. This standard does not cover offshore wind energy projects, nor activities occurring off-site, nor the construction or demolition of small wind turbine systems.

1.4 Modifications and Exceptions. In cases of practical difficulties, unnecessary hardships or new developments, exceptions to the literal requirements may be granted by the enforcing authority to permit the use of other devices or methods, but only when it is clearly indicated that the equivalent protection is thereby secured.

1.5 Mandatory and Advisory Rules. Mandatory rules of this standard are characterized by the word "shall." If a rule is of an advisory nature, it is indicated by the word "should," or is stated as a recom-

mendation or commentary. The appendices are advisory.

2. DEFINITIONS

2.1 Advanced Life Support Unit (ALS). A unit of emergency medical responders with advanced training, typically to emergency medical technician (EMT) paramedic level. ALS unit requirements are defined further in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*.

2.2 Arc Flash. A dangerous condition associated with the release of energy caused by an electrical arc.

2.3 Arc Flash Hazard Analysis. A study investigating a worker's potential exposure to arc flash energy, conducted for the purpose of injury prevention and the determination of safe work practices, arc flash boundary and the appropriate levels of personal protective equipment (PPE).

2.4 Blasting. The controlled detonation of explosives to achieve a desired effect such as the removal of an obstruction, demolition of a building, creating an opening in rock or other desired outcome from the use of the destructive properties of an explosive agent.

2.5 Competent Person. One who is capable of identifying existing and predictable hazards in surroundings which are unsanitary, hazardous or dangerous to employees, and who has the authority to take prompt corrective measures to eliminate them.