AMERICAN NATIONAL STANDARD

ANSI/ASSE A10.44-2006
Control of Energy Sources (Lockout/Tagout) for Construction and Demolitions Operations

American National Standard for Construction and Demolition Operations

ANSI/ASSE A10.44-2006

AMERICAN SOCIETY OF SAFETY ENGINEERS

ANSI®
ANSI A10.44 – 2006

American National Standard
Construction and Demolition Operations

Control of Energy Sources (Lockout/Tagout) for Construction and Demolitions Operations

Secretariat

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

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American National Standard

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Foreword

(This Foreword is not a part of American National Standard A10.44-2006.)

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 Planning for Construction Safety and Health (under development)
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 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
A10.22 Rope-Guided and Non-Guided Workers' Hoists
A10.23 Back Injury Prevention Programs (under development)
A10.24 Roofing – Safety Requirements for Low-Sloped Roofs
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 Construction 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 Reduction of Musculoskeletal Problems 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
A10.46 Hearing Loss Prevention (under development)
A10.47 Highway Construction Safety (under development)
A10.48 Communication Tower Erection (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.

Interpretations: Upon a request in writing to the Secretariat, the A10 Committee will render an interpretation of any requirement of the standard. The request for interpretation should be clear, citing the relevant paragraph number(s) and phrased as a request for a clarification of a specific requirement. Oral interpretations are not provided.

No one but the A10 Committee (through the A10 Secretariat) is authorized to provide any interpretation of this standard.

Approval: Neither the A10 Committee nor American National Standards Institute (ANSI) "approves," "certifies," "rates," or "endorses" any item, construction, proprietary device, or activity.

Appendices: Appendices are included in most standards to provide the user with additional information related to the subject of the standard. Appendices are not part of the approved standard.

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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Contents

AMERICAN NATIONAL STANDARD A10.44
CONTROL OF ENERGY SOURCES (LOCKOUT/TAGOUT)
FOR CONSTRUCTION AND DEMOLITIONS OPERATIONS

1. SCOPE AND PURPOSE

1.1 Scope. This standard establishes the minimum requirements for the control to prevent release of energy sources that could cause injury or illness to personnel performing construction and demolition work.

This standard does not cover the following:

Installations under the exclusive control of electric utilities for the purpose of power generation, transmission and distribution, including related equipment for communication or metering; and exposure to electrical hazards from work on, near, or with conductors or equipment in electric utilization installations.

1.2 Purpose. The purpose of this standard is to establish performance objectives for procedures for the protection of personnel and property in, on or around machines or equipment during repair, maintenance, operation, installation and associated activities from injury due to unexpected start-up or release of stored energy from the equipment or system/ process or induced energy.

2. DEFINITIONS

2.1 Affected Employee. An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

2.2 Authorized Employee. A qualified person authorized by their employer to lockout and/or tagout machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

2.3 Capable of Being Locked Out. An energy isolating device is one capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild or replace the energy isolating device or permanently alter its energy control capability.

2.4 Competent Person(s). Those who, as a result of specific education, training and/or experience, are capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees and who have authorization and responsibility to take prompt, corrective measures to eliminate them.

2.5 Disconnecting Means. A device, a group of devices or other means by which the conductors of a circuit can be disconnected from their source of supply.

2.6 Disconnecting Switch. A mechanical switching device used for isolating a circuit or equipment from an energy supply (source can be placed in zero energy state).

2.7 Energized. Induced to an energy source or containing residual or stored energy.

2.8 Energy Isolating Device. A verifiable mechanical device that physically prevents the transmission or the release of energy, including but not limited to the following: blinding and blanking. Blinding and blanking is the inserting of a solid barrier across the open end of a pipe, or between two flanges, and securing the barrier in such a way to prevent leakage from the pipe or between the two flanges. (Refer to ANSI/ASME B31.3, *Process Piping,* to determine the appropriate blind/ blank for the line pressure); a manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and in addition, no pole can be operated independently; a line valve; block, and any similar device used to block or isolated energy. Isolation may also be achieved by removal of integral parts resulting in the equipment's inability to transfer energy such as but not limited to: motors, drive mechanisms, transmissions, clutches or other such devices.

2.9 Energy Source. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy.

2.10 Hot Tap. A procedure used in repair, maintenance, and services activities, which involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water or steam.

2.11 Lock Box. A container in which the key of the lockout device is placed and all affected employees place their lock on the container. The key to the lockout device remains locked in the container until all affected employees have removed their lock from the container.

2.12 Lockout/Tagout (LO/TO). The placement of a lockout device and a tag (in combination) on the energy isolating device in accordance with an established procedure, indicating that the energy isolating device shall not be operated until removal of the lockout device and tagout device in accordance with an established procedure.

2.13 Lockout/Tagout Program. The written program developed by the construction employer to satisfy the requirements of this standard.

2.14 Lockout Device. A device that utilizes a positive means such as a uniquely keyed lock with the key kept under the control of the authorized employee to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Examples of acceptable lockout devices include, but are not limited to, blank flanges, bolted slip blinds, or other similar means.

2.15 Normal Production Operations. The utilization of a machine or equipment to perform its intended production function. Minor tool changes and adjustments and other minor servicing activities, which may take place during normal production operations are not addressed in this standard if they are considered routine, repetitive and integral to the use of the equipment.

2.16 Qualified Person(s). One who, by possession of a recognized degree, certificate or professional standing, and by extensive knowledge, training and experience, has successfully demonstrated his/ her ability to solve or resolve problems relating to the subject matter, the work, or the project.

2.17 Residual Energy. Having the capability to release electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy due to energy remaining in the system after the primary source of energy has been isolated or disconnected.

2.18 Servicing and/or Maintenance. Workplace activities such as constructing,