AMERICAN NATIONAL STANDARD

ANSI/ASSE A10.27-1998
Safety Requirements for
Hot Mix Asphalt Facilities –

American National Standard
for Construction and
Demolition Operations

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AMERICAN SOCIETY OF
SAFETY ENGINEERS

ANSI®
A10.27-1998

Safety Requirements for Hot Mix Asphalt Facilities –

American National Standard for
Construction and Demolition Operations

Secretariat

American Society of Safety Engineers
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Approved November 24, 1998

American National Standards Institute, Inc.

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Published by

American Society of Safety Engineers
1800 East Oakton Street
Des Plaines, Illinois 60018-2187
(847) 699-2929 • www.asse.org

Printed the United States of America

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Foreword (This Foreword is not part of American National Standard for Safety Requirements for Hot Mix Asphalt Facilities, A10.27-1998.)

This standard provides recommendations concerning the design, manufacture, operating processes and equipment associated with the production of hot mix asphalt (HMA) facilities.

This standard is one in a series of safety standards formulated by the American National Standards Committee on Safety in Construction and Demolition Operations, A10. It is expected that the standards will find a major application in industry, serving as a guide to contractors, labor, and equipment manufacturers. For the convenience of the user, existing and proposed standards in the A10 series are listed below:

A10.2 Safety, Health and Environmental Training
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 Safety Nets
A10.12 Excavation
A10.13 Steel Erection
A10.14 Safety Belts, Harnesses, Lanyards, and Lifelines
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
A10.24 Roofing (under development)
A10.27 Safety Requirements for Hot Mix Asphalt Facilities
A10.28 Work-Platforms Suspended from Cranes or Derricks
A10.31 Digger-Derricks
A10.32 Fall Protection System for Construction Industry Users (under development)
A10.33 Safety and Health Program Requirements for Multi-Employer Projects
A10.34 Public Protection (under development)
A10.35 High Pressure Hydro Blasting (under development)
A10.37 Debris Nets
A10.38 Basic Elements of a Program to Provide a Safe and Healthful Work Environment
A10.39 Safety and Health Audit Program
A10.41 Equipment Operator and Supervisor Qualifications and Responsibilities (under development)
A10.42 Rigging Supervisor, Riggers, Signalmen Qualifications and Responsibilities (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 periodically (usually 5 years from date of the standard) to 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 a description of the reason for the proposal. Pertinent doc-

umentation 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 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.

Appendixes: Appendixes are included in most standards to provide the user with additional information related to the subject of the standard. Appendixes 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 it approved this standard, the A10 Committee had the following members:

Matthew J. Burkart, Chairman
Jim E. Lapping, Vice Chairman
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American National Standard for Construction and Demolition Operations—

Safety Requirements for Hot Mix Asphalt Facilities

1 General Scope

This standard provides recommendations concerning the design, manufacture, operating processes, and equipment associated with the production of hot asphalt (HMA) mixing facilities. Included are raw material handling and storage, equipment operation to produce asphalt mixtures, and the delivery of mixes into vehicles for transport to users. Routine maintenance housekeeping and allied functions are included.

2 Purpose

The purpose of this standard is to provide operational/design safety and health guidelines to protect the HMA facility operators, employees, and other persons from injury.

3 Definitions

3.1 asphalt, cold mix: A mixture of unheated mineral aggregate and emulsified asphalt.

3.2 asphalt, hot mix (HMA): a blend of heated and dried aggregate, heated asphalt cement and, in some cases, other liquid or solid additives.

3.3 asphalt burns: Injury to flesh caused by direct contact of flesh with hot asphalt. The nature of asphalt causes it to adhere to flesh and the resulting continued contact can greatly increase the severity of injury.

3.3.1 asphalt burns, non-serious: Injury to only very small areas of flesh on relatively non-sensitive areas of the body by small quantities of asphalt. If the injured person shows any evidence of nausea or faintness, the burn should be considered serious.

3.3.2 asphalt burns, serious: Injury to significant areas of flesh especially to the head, face, or extremities and/or when large amounts of asphalt are involved.

3.4 asphalt fumes: The cloud of small particles created by condensation for the gaseous state after volatilization of asphalt.

3.5 combustible hazards: Presence of combustible material, which creates a high risk of fire by its nature and/or the proximity of a potential ignition source.

3.6 combustible material: Any substance that may be ignited by normally available means and that will sustain combustion when the source of ignition is removed.

3.7 confined space: A space that is large enough and so configured that an employee can bodily enter and perform assigned work; has a limited or restricted means of entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, or pits that may have limited means of entry); and is not designed for continuous employee occupancy.

3.8 cut back: Asphalt cement that has been diluted or liquefied by adding or blending petroleum solvents.

3.9 direct fired tank: A tank that uses an LP #2 or natural gas flame as its heating medium.

3.10 flammable: Any material that is easily ignited, especially by means other than direct flame.

3.11 flash point: The minimum temperature at which a substance gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the material within the vessel as specified by the appropriate test procedure and apparatus per ASTM test methods D-56-70 or D-93-72.

3.12 gravimetric method: A method for estimation of the air concentration of asphalt fumes.

3.13 guard: A device designed, constructed, and used to: provide positive protection; prevent