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American National Standard
Construction and Demolition Operations

Standard for Heat Stress Management
In Construction and Demolition Operations

Secretariat

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

Approved January 4, 2024

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Foreword  (This Foreword is not a part of American National Standard A10.50-2024.)

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 and technical materials in the A10 series for Safety Requirements in Construction and Demolition Operations follows.

A10.0  The Construction and Demolition Compendium of Standards
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  Use, Storage, Handling and Site Movement of Commercial Explosives and Blasting Agents
A10.8  Scaffolding
A10.9  Concrete and Masonry Construction
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A10.100 Prevention through Design in Construction
A10.101 Drones in Construction (under development)
A10.103 Lagging and Leading Indicators Used in Construction (under development)
A10.104 Pandemics and Infectious Diseases on Construction and Demolition Sites (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.

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12. Responsibilities

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1. General

1.1 Scope

This standard establishes the minimum requirements for the prevention of heat illnesses and management of heat stress hazards and exposures encountered during construction and demolition operations. It establishes procedures for the management of heat stress hazards and the selection and use of appropriate controls and practices to reduce risks presented by heat stress and prevention of heat illnesses for all work environments.

1.2 Purpose

The purpose of this standard is to reduce the risk to workers of adverse occupational health effects from heat stress due to heat exposures in construction and demolition operations.

1.3 Objective

The objective of this standard is to (a) assist users in recognizing signs and symptoms of heat-related disorders in both indoor and outdoor work environments; (b) provide methods and strategies for reducing or eliminating workers’ emergent heat-related disorders at construction worksites; and (c) provide planning help to establish training content for workers and supervisors related to heat stress and heat-related disorders.

2. Abbreviations, References, and Other Resources

2.1 Abbreviations

°C – degrees Celsius
°F – degrees Fahrenheit
ACGIH – formerly known as American Conference of Governmental Industrial Hygienists
AIHA – American Industrial Hygiene Association
bpm – beats per minute
ISO – International Organization for Standardization
HSMP – Heat Stress Management Program
NIOSH – National Institute for Occupational Safety and Health
NWS – National Weather Service of the National Oceanic and Atmospheric Administration
OSHA – Occupational Safety and Health Administration
RWS – Regular Work Schedule
TACO – Tarp Assisted Cooling with Oscillation
UPF-Rating– Ultraviolet Protection Factor Rating
WBGT – Wet Bulb Globe Temperature (an index of the ambient environment)
WBGTclo – WBGT which includes adjustments for PPE clothing

2.2 References
