



AMERICAN NATIONAL STANDARD

*Construction and Demolition
Operations, Safety
Requirements for Dredging*

ANSI/ASSE A10.15-1995 (R2005)



AMERICAN SOCIETY OF
SAFETY ENGINEERS

The information and materials contained in this publication have been believed to be reliable. However, the American Society of Safety secretariat of the ANSI accredited A10 Committee or individual committee legal responsibility for the correctness or completeness of this material specific factual situations. By publication of this standard, ASSE or the not ensure that adherence to these recommendations will protect the persons, or preserve property.

This is a preview of "ANSI/ASSE A10.15-199..." . Click here to purchase the full version from the ANSI store.

ed from sources
ers (ASSE) as
mbers accept no
ts application to
Committee does
or health of any

ANSI®
ANSI A10.15 – 1995 (R2005)

American National Standard
Construction and Demolition Operations
Safety Requirements for Dredging

Secretariat

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

Approved May 19, 2005

American National Standards Institute, Inc.

American National Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer. Consensus is established when, in the judgment of the ANSI Board of Standards Review, directly and materially affected interests have reached substantial agreement. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution. The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he/she has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards. The American National Standards Institute does not develop standards and will in no circumstance give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretation shall be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

Caution Notice: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Published August, 2005 by

American Society of Safety Engineers

**1800 East Oakton Street
Des Plaines, Illinois 60018-2187
(847) 699-2929 • www.asse.org**

Copyright ©2005 by American Society of Safety Engineers
All Rights Reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

Printed in the United States of America

Foreword (This Foreword is not a part of American National Standard A10.15-1995 (R2005).)

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 (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 Marine 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 (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 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 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)
A10.46 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.

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 this standard was published, the A10 Committee had the following members:

Richard King, CSP, Chairman
James Tomaseski, Vice Chairman
Timothy R. Fisher, Secretary CSP, ARM, CPEA
Jennie Dalesandro, Administrative Technical Support

Organization Represented

Name of Representative

Accident Prevention Corp.	Frank Burg
Aegis Corporation	Michael Serpe
Allegheny Power System	Matthew J. Burkart, P.E.
Alstom Power	Judith Burkhart
American Federation of Labor and Congress of Industrial Organizations	David Szuch
American Insurance Services Group	Richard P. Sanner
ASCE - Construction Institute Committee	Robert Renney
American Society of Safety Engineers	Ted P. Sharp
American Subcontractors Association	Jim E. Lapping, MS, P.E., CSP
Asbestos Workers International Union	Edward Campbell
Associated Builders and Contractors	James G. Borchardt, CSP, CPE
Associated General Contractors of America, The	Edward R. Ardery, P.E.
Barton-Malow Company	Harold McKittrick
Black & Veatch	Allen Macenski, CSP, J.D.
Building & Construction Trades Department	A. David Brayton, CSP, CPC
Center to Protect Workers' Rights, The	Dave Madaras
Chicago Bridge & Iron Company	Luke McFadden
Clark Construction Group	Terry Lynch
Cole-Miller Safety Consulting, Inc.	Jim E. Lapping, MS, P.E., CSP
Philip L. Colleran	Michael W. Hayslip, P.E., CSP
Construction Users Roundtable, The	Joe Visgaitis
D.B. Industries	James Brown
DTE Energy Services	Ron Prichard, Ph.D., P.E.
ECI Safety Services Co.	John Gleichman, CSP
Edison Electric Institute	Richard F. King, CSP
	John H. Borowski, CIH, CSP
	Pete Stafford
	Jim Platner, Ph.D., CIH
	Mike McCann, Ph.D., CIH
	Pete Stafford
	James Rhudy
	Wallace K. Melvin
	Tim Sirofchuck
	Jack Duley
	Barry Cole
	Steve Miller
	Philip L. Colleran, CSP
	Ron G. Prichard, Ph.D., P.E.
	Timothy Stephenson, PMP
	Scott C. Casebolt
	J. Thomas Wolner, P.E.
	John H. Johnson, CSP
	David Crouse
	Anthony Merisola
	Patrick Brennan
	R. Lee Reed, Jr.
	Charles Kelly

E. I. Dupont de Nemours & Company	Gary Birchall
Elevator Industry Preservation Fund	Robert Krzywicki
Gilbane Building Co.	John Quackenbush
Richard D. Hislop	Rod Gilles
Institute of Makers of Explosives	John P. O'Donovan
International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers	Carol Murkland
International Brotherhood of Boilermakers	Richard Hislop
International Brotherhood of Electrical Workers	Lon D. Santis
International Brotherhood of Teamsters	J. Christopher Ronay
International Safety Equipment Association	Frank Migliaccio, Jr.
International Union of Bricklayers & Allied Craftworkers	David Haggerty
International Union of Operating Engineers	Bridget Conner
International Union of Painters & Allied Trades	James Tomaseski
Jack L. Mickle & Associates	Jerry Westerholm
Laborers International Union of North America	Michael Watson
Marsh USA, Inc.	Janice Bradley, CSP
Maryland Occupational Safety & Health	Cristine Fargo
Mechanical Contractors Association of America	Scott Conwell
MYR Group, Inc.	Eileen Betit
National Association of Home Builders	Emmett Russell
National Association of Railroad Safety Consultants & Investigators	Steve Brown
National Institute for Occupational Safety & Health CPE	Dan Penski
National Railroad Construction & Maintenance Association	Brian Gustine
National Roofing Contractors Association	Jack Mickle, Ph.D., P.E.
National Society of Professional Engineers	Kelly E. Lapping
NEA – The Association of Union Constructors	Scott Schneider
Operative Plasterers and Cement Masons, International Association	Walter A. Jones, MS
Daniel M. Paine	Timothy Bergeron, CSP
Power Consultants, Incorporated	Roy E. Blades
	Mischelle Vanreusel
	Peter Chaney
	Dennis Langley
	Steven Theis, CSP, CHMM, CUSA
	Joseph Branco
	Robert Matuga
	George Middleton
	Lewis Barbe, P.E., CSP, CRSP
	Thomas Bobick, Ph.D., P.E., CSP,
	Jeffrey D. Meddin, CSP, CHCM
	Mike Hasenstab
	Harry Dietz
	Tom Shanahan
	C.E. Jackson, Jr., P.E.
	E. Ross Curtis, P.E., DFE
	William Treharne, P.E.
	Wayne Rice
	Gerald Ryan
	Daniel M. Paine
	Barbara Paine
	David Goldsmith
	Steven Jecker

Professional Safety Consultants, Inc. Property Casualty Insurers Association of America	Timothy Palmer, Ph.D., P.E. John Neil Peter Furst Bob Masterson, CSP Ron Lattanzio Chris Johnson Jerry Meadors
Ryland Group, Inc., The Safety and Quality Plus Scaffolding, Shoring & Forming Institute	
Sheet Metal & Air Conditioning Contractors National Association Sheet Metal Workers International Association	Mike McCullion Gary Batykefer Charles Austin A.J. Scardino, Jr. Dennis Scardino, P.E. Stanley D. Pulz, CSP, P.E. Jessica Pulz Brett Richardson William Lanius Dennis Falvey, CSP Brian Peterson William Rhoten
Sigma Associates, Ltd.	
SPA, Incorporated	
TIC-The Industrial Company	
Turner Construction Company	
United Association of Plumbers and Pipefitters United Brotherhood of Carpenters and Joiners of America	William Irwin Thomas L. Kavicky
United Union of Roofers, Waterproofers and Allied Workers	
U.S. Department of the Army – Corps of Engineers	Robert J. Krul John Barnhard Samuel Testerman Brian Becker Patrick Finn Leslie Bermudez Camille Villanova Stewart C. Burkhammer Mark Fullen Brandon Takacs Ingo Zeise Greg Thompson
U.S. Department of Energy	
U.S. Department of Labor – OSHA	
West Virginia University - Extension Service	
Z Con Safety Consultants ZBD Constructors (Zurn Industries)	

Subgroup A10.15 had the following members:

A.J. Scardino, Jr. (Chairman)
Nick Danhoff
Larry Edginton
Jim Estep
Brian Gustine
A.V. Marks
Dan Penski
Matthew J. Scardino
Oscar F. Smith, IV

Contents	SECTION.....	PAGE
	1. General.....	11
	1.1 Scope	11
	1.2 Purpose	11
	1.3 Exemptions.....	11
	1.4 Application	11
	2. Referenced and Related Standards	11
	2.1 Referenced American National Standards	11
	2.2 Other Referenced Standards.....	12
	2.3 Related Standards.....	12
	3. Definitions.....	13
	4. General Requirements for Floating Plant and Marine Equipment	14
	5. Safety, Health and Environmental Requirements.....	15
	5.1 Planning.....	15
	5.2 Emergency Plans – Procedures and Drills	15
	5.3 Toxic and Hazardous Materials	16
	6. Medical Surveillance and First Aid	16
	7. Housekeeping.....	16
	8. Illumination	17
	9. Personal Protective Equipment	17
	9.1 General Requirements for Protective Eyewear	17
	9.2 Impact Protection Eyewear.....	17
	9.3 Eye Protection Against Radiant Energy	17
	9.4 Other Personal Protective Equipment	18
	9.5 Work Vests and Life Preservers	18
	9.6 Protection Against Falls.....	18
	10. Occupational Noise Exposure	18
	11. Fire Protection	18
	11.1 Flammable Liquids Storage.....	18
	11.2 Fire Extinguishers.....	18
	11.3 Fire Patrols	19
	11.4 Water Supply and Distribution	19
	11.5 Apparatus and Equipment	19
	11.6 Fire-Alarm Devices	19
	11.7 Fire-Fighting Organizations, Training, and Drilling	19
	11.8 Miscellaneous.....	19

12. Hand and Powered Tools	19
12.1 General	19
12.2 Hand Tools	20
12.3 Portable Electric Tools.....	20
12.4 Abrasive Wheels.....	20
12.5 Pneumatic Tools.....	20
13. Welding, Cutting, and Heating.....	21
13.1 Ventilation and Protection in Welding, Cutting and Heating	21
13.2 Welding, Cutting and Heating of Hollow Metal Containers and Structures	21
14. Electrical Facilities	21
15. Walking and Working Surfaces	21
16. Launches and Motorboats	22
17. Pipeline Dredges	23
18. Rigging and Material Handling	23
18.1 Rigging	23
18.2 Inspections	23
18.3 Shackles and Hooks.....	23
18.4 Chain Falls, Pull-Lifts (Come-A-Longs), and Trolleys.....	23
18.5 Hoisting Equipment	24
19. Facilities for Quartering Personnel	24
20. Pressurized Equipment and Systems.....	24
20.1 General.....	24
20.2 Isolation and Tagging of Piping System	25
20.3 Pressure Piping Systems	25
20.4 Compressed Air and Gas Equipment and Systems	25
20.5 Boilers and Systems.....	26
21. Ladders.....	26
21.1 Portable Ladders	26
21.2 General Requirements	26
22. Working in Isolated, Enclosed, or Confined Spaces.....	27
22.1 Personal Protective Equipment and Clothing	27
23. Surface Preparation and Preservation	27
23.1 Toxic Cleaning Solvents.....	27
23.2 Chemical Paint and Preservation Removers.....	27
23.3 Mechanical Paint Removers.....	27
23.4 Painting.....	28
Appendix A	29
Appendix B	32

AMERICAN NATIONAL STANDARD A10.15 SAFETY REQUIREMENTS FOR DREDGING

1. GENERAL

1.1 Scope. This standard applies to Construction Dredging Operations.

1.2 Purpose. This standard contains performance requirements in the safe and healthful process of conducting dredging operations:

- (1) for the preservation of life, limb, and property;
- (2) to provide direction to employers, supervisors, and others concerned with, or responsible for, its application; and
- (3) to assist governments and other regulatory bodies in the development, promulgation, and enforcement of appropriate safety directives.

1.3 Exceptions. This standard does not apply to the following:

- (1) Oil rigs-petroleum and chemical industry
- (2) Deepwater mining and dredging on the outer continental shelf
- (3) Fishing operations, including shell fishing
- (4) Earthmoving equipment that is not on or part of a vessel
- (5) Metallic and nonmetallic mining and sand and gravel operations
- (6) Mining of clam or reef shells, or both.

1.4 Application. This standard applies to dredging operations, in connection with activities such as flood control, harbor maintenance, etc.

2. REFERENCED AND RELATED STANDARDS

2.1 Referenced American National Standards. This standard is intended where applicable for use in conjunction with the following American National Standards. When these referenced standards are superseded by a revision approved by the American National Standards Institute, Inc., the revision shall apply.

ANSI A10.8, *Safety Requirements for Scaffolding*

ANSI A10.18, *Temporary Floor Holes, Wall Openings, Stairways and Other Unprotected Edges*

ANSI A10.31, *Digger Derricks*

ANSI A10.33, *Safety and Health Program Requirements for Multi-Employer Projects*

ANSI A10.38, *Basic Elements of a Program to Provide a Safe and Healthful Work Environment*

ANSI A14.1, *Ladders-Portable Wood-Safety Requirements*

ANSI A14.2, *Ladders-Portable Metal-Safety Requirements*

ANSI A14.4, *Job-Made Wooden Ladders-Safety Requirements*

ANSI A14.5, *Ladders-Portable Reinforced Plastic-Safety Requirements*

ANSI B7.1, *Safety Requirements for the Use, Care, and Protection of Abrasive Wheels*

ANSI/ASME B30.16, *Overhead Hoists (Underhung)*