ANSI/ASSP A10.15-1995 (R2017)

Safety Requirements for Dredging

The American Society of Safety Engineers (ASSE) is now the American Society of Safety Professionals (ASSP). ASSP continues to be the Secretariat for the committee producing this standard and continues to hold the copyright to this standard. There is no change to the content and requirements in the standard. The only change is on the cover indicating the organizational name change of the standards developing organization from ASSE to ASSP.







The information and materials contained in this publication have been developed from sources believed to be reliable. However, the American Society of Safety Engineers (ASSE) as secretariat of the ANSI accredited A10 Committee or individual committee members accept no legal responsibility for the correctness or completeness of this material or its application to specific factual situations. By publication of this standard, ASSE or the A10 Committee does not ensure that adherence to these recommendations will protect the safety or health of any persons, or preserve property.

American National Standard Construction and Demolition Operations

Safety Requirements for Dredging



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

Approved June 15, 2017

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 September 2017 by

American Society of Safety Engineers 520 N. Northwest Highway Park Ridge, Illinois 60068 (847) 699-2929 • www.asse.org

Copyright ©2017 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 (R2017).)

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 (under development)
- 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.

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 section 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 section 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.

Checklists: Checklists included in A10 standards may be copied and used in non-commercial settings only.

Committee Meetings: The A10 Committee meets twice per 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 ANSI approved this standard, the A10 Committee had the following members:

Richard King, CSP, Chair Steven Rank, Vice Chair Timothy R. Fisher, CSP, CHMM, ARM, CPEA, Secretary Lauren Bauerschmidt, MS Engr, CSP, Assistant Secretary Jennie Dalesandro, Administrative Technical Support

Organization Represented

3M Corporation

Accident Prevention Corporation

AGC of America

American Insurance Services Group

American Society of Civil Engineers

American Society of Safety Engineers

American Wind Energy Association

American Work Platform Training, Inc.

APT Research, Inc.

Associated Builders and Contractors, Inc.

A-Z Safety Resources, Inc. **Barton-Malow Company**

Black & Veatch

Building & Construction Trades Department

Century Elevators

Clark Construction Group

Cole-Preferred Safety Consulting, Inc. Construction & Realty Safety Group, Inc.

CPWR - Center for Construction Research & Training

Edison Electric Institute

Elevator Industry Work Preservation Fund

Ellis Fall Safety Solutions, LLC

Engineering Systems, Inc.

Fluor Corporation

Gilbane Building Co.

Name of Representative

Raymond A. Mann

Judd Perner

Frank Burg, CSP, P.E. Terry Krug, CSP, CIH Michael McCaffrey Kevin Cannon

Thad Nosal

James G. Borchardt, CSP, CPE, CPSM,

William R. Nash, P.E. Harlan Fair, P.E.

Ken Shorter, CSP, ARM, TCDS

A. David Brayton, CSP, CPC

Christopher Daniels Michele Myers Mihelic Dennis W. Eckstine Saralyn Dwyer

Greg Sizemore Lauren Williams

Jane F. Williams, CPEA, CCA

Jeffrey Oliver, CSP, CHST Mark Haggenmaker Richard F. King, CSP

John H. Johnson, CSP Chris Trahan Cain, CIH

Gary Gustafson Paula Manning

Eric Schmidt, P.E. Kurt Dunmire, CSP, CHST

Barry Cole Ron Lattanzio Frank Marino

Bruce Lippy, Ph.D., CIH, CSP

Babak Memarian Jonathan Kerns Adam Frederick Michael D. Morand James Demmel

J. Nigel Ellis, Ph.D., P.E., CSP, CPE

John T. Whitty, P.E. David Ahearn, P.E. Edward J. Tuczak, P.E. Michael Weatherred, CSP James Bates, CSP Charles Praul, Jr., CSP

Robert Hinderliter

Richard D. Hislop

Independent Electrical Contractors, Inc.

Innovative Safety, LLC

Institute of Makers of Explosives

International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers International Association of Heat & Frost Insulators & Allied Workers International Brotherhood of Boilermakers

International Brotherhood of Electrical Workers

International Brotherhood of Teamsters

International Safety Equipment Association International Union of Bricklayers & Allied Craftworkers

International Union of Operating Engineers

Jack L. Mickle & Associates Kiewit Power Constructors Co.

Laborers' International Union of North America

Lamar Advertising

Lendlease Corporation

Liberty Mutual Insurance

Marsh LLC

Maryland Occupational Safety & Health

Mechanical Contractors Association of America

Miller & Long Concrete Construction

National Association of Home Builders

National Association of Railroad Safety Consultants & Investigators National Electrical Contractors Association

National Institute for Occupational Safety & Health

National Railroad Construction & Maintenance Association **National Roofing Contractors Association**

National Society of Professional Engineers

Richard Hislop Shawn Bradfield Paul Dolenc Jerry Rivera Daniel M. Paine Barbara Paine Susan JP Flanagan Ronald Thomas

Steven Rank

Tim Keane Mark Garrett **Bridget Connors** David Mullen Dan Gardner LaMont Byrd, CIH Asher Tobin Cristine Fargo

Michael Kassman, CHST

Gerard Scarano Christopher Treml Barbara McCabe Steve Stock, P.E., PLS Rusty Brown, CSP Ecudemio Gutierrez Walter A. Jones, MS, CIH

Travis Parsons Chuck Wigger, CSP Beth Phelps

Joel Pickering, CET, CHMM

Michael Lentz

Daniel P. Lavoie, CSP, ARM Stan Williams, ARM, CHST Timothy Bergeron, CSP Mischelle Vanreusel Michael Daughaday Peter Chaney, MS, CSP

Dennis Langley Frank Trujillo Alex Rodas, CHST Robert Matuga Chelsea Vetick

Lewis Barbe, P.E., CSP, CRSP

Michael J. Johnston Wesley Wheeler

Thomas G. Bobick, Ph.D., P.E., CSP, CPE

G. Scott Earnest, Ph.D., P.E, CSP

Jeffrey D. Meddin, CSP, CHEP, CHCM Harry Dietz Tom Shanahan E. Ross Curtis, P.E., DFE Paul Swanson, P.E.

NESTI, Inc.
Operative Plasterers and Cement Masons
International Association
PATMI

Phoenix Fabricators and Erectors, Inc.

Power Consultants, Incorporated

Professional Safety Consultants, Inc.

Safety Environmental Engineering, Inc. Scaffolding, Shoring & Forming Institute

Shafer Safety Solutions, LLC
Sheet Metal & Air Conditioning Contractors'
National Association
SMART Union

SPA Incorporated TAUC

Turner Construction Company

U.S. Army Corps of Engineers U.S. Department of Energy

United Association

United Brotherhood of Carpenters and Joiners of America United Union of Roofers, Waterproofers & Allied Workers West Virginia University Extension Service

ZBD Constructors, Inc.

Independent Experts & Observers:

Alliance of Hazardous Materials Professionals National Association of Tower Erectors

Warfel Construction Company

Subgroup A10.15 had the following members:

Anthony Brown (Chair)
Luke Humphrey (Liaison)
Nick Danos
Brian Gustine
Dan Penski

Michael Hayslip, P.E., CSP

Deven Johnson
James A. Borchers
Craig Pratt
Luke Humphrey
Frank Massey
David Goldsmith
Camille Villanova
Jim E. Lapping, MS, P.E., CSP
Anthony Brown
Matthew Murphy
Granville Loar
DeAnna Martin
Carmen Shafer, CSP, CHST, CRIS

Mike McCullion, CSP, ARM
Randall Krocka
Charles Austin, MS
Stanley Pulz, CSP, P.E.
Wayne Creasap, II
Kathleen Dobson, CSP, CHST, STS.C
Cindy L. DePrater, ALCM
Abdon Friend, CSP
Andrew Blaisdell, MS, EI
Bill R. McArthur, Ph.D., CIH
Terry Meisinger
Cheryl Ambrose, CHST, OHST
Rich Benkowski
William Irwin
Dale Shoemaker

Keith J. Vitkovich Brandon Takacs, CSHM Mark Fullen, Ed.D., CSP Greg Thompson, CSP Jeffrey D. Meddin, CSP, CHEP, CHCM

Carl Heinlein, CSP, ARM, CRIS John P. Jones Kathryn Stieler Jeffrey I. Pierce Kevin Stoltzfus

Contents	SECTION	PAGE
	1. General	11 11 11
	Referenced and Related Standards 2.1 Referenced American National Standards 2.2 Other Referenced Standards 2.3 Related Standards	11 12 12
	3. Definitions	13
	4. General Requirements for Floating Plant and Marine Equipment	14
	Safety, Health and Environmental Requirements 1 Planning 5.2 Emergency Plans – Procedures and Drills 5.3 Toxic and Hazardous Materials	15 16
	6. Medical Surveillance and First Aid	16
	7. Housekeeping	17
	8. Illumination	17
	9. Personal Protective Equipment	17 17 17 18 18
	10. Occupational Noise Exposure	18
	11. Fire Protection 11.1 Flammable Liquids Storage 11.2 Fire Extinguishers 11.3 Fire Patrols 11.4 Water Supply and Distribution 11.5 Apparatus and Equipment 11.6 Fire-Alarm Devices 11.7 Fire-Fighting Organizations, Training and Drilling 11.8 Miscellaneous	19 19 19 19 19 19
	12. Hand and Powered Tools	20 20 20

13.	Welding, Cutting, and Heating	21	
	and Structures	21	
14.	Electrical Facilities	21	
15.	Walking and Working Surfaces		
	. Launches and Motorboats		
	Pipeline Dredges		
18.	Rigging and Material Handling	23	
	18.1 Rigging	23	
	18.2 Inspections	23	
	18.3 Shackles and Hooks		
	18.4 Chain Falls, Pull-Lifts (Come-A-Longs) and Trolleys		
	18.5 Hoisting Equipment	24	
19.	Facilities for Quartering Personnel		
20	Pressurized Equipment and Systems	24	
_0.	20.1 General		
	20.2 Isolation and Tagging of Piping System		
	20.3 Pressure Piping Systems		
	20.4 Compressed Air and Gas Equipment and Systems		
	20.5 Boilers and Systems		
21.	Ladders	26	
	21.1 Portable Ladders		
_ \	21.2 General Requirements	26	
٠,			
22.	. Working in Isolated, Enclosed or Confined Spaces	27	
	22.1 Personal Protective Equipment and Clothing		
	•		
23.	Surface Preparation and Preservation	27	
	23.1 Toxic Cleaning Solvents	27	
	23.2 Chemical Paint and Preservative Removers	27	
	23.3 Mechanical Paint Removers	28	
	23.4 Painting	28	
	Appendix A		
	Appendix B3		

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;
 - To provide direction to employers, supervisors and others concerned with, or responsible for, its appli-cation; and
 - 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:
 - Oil rigs-petroleum and chemical industry.
 - 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.
 - Metallic and nonmetallic mining and sand and gravel operations.
 - 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/ASSE A10.8, Safety Requirements for Scaffolding

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

ANSI/ASSE A10.31, Digger Derricks

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

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

ANSI/ALI A14.1, Ladders-Portable Wood-Safety Requirements

ANSI/ALI A14.2, Ladders-Portable Metal-Safety Requirements

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

ANSI/ALI 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)