North Carolina Department of Labor
Occupational Safety and Health

Raleigh, NC

Field Information System CPL 02-00-133

Subject: Shipyard "Tool Bag" Directive

A. **Discussion.**

This federal instruction provides guidance concerning the application of occupational safety and health standards in shipyard employment. The instruction is also intended to provide, in an interactive electronic format, the tools necessary to successfully conduct interventions or inspections in the ship and boat building and repair industries. This Directive; CPL 02-00-133 does not require State Plan adoption, however, states are expected to have enforcement policies and procedures which are at least as effective as those of Federal OSHA. The Federal OSHA standard, 29 CFR 1915 - Shipyard Employment, was adopted by OSHNC and became effective December 1, 1993. OSHNC covers activities in a state-owned shipyard where public sector employees are engaged in the repair of the states ferry boats. The remaining boat building and boat repair facilities located on the navigable waterways fall under Federal OSHA jurisdiction.

B. **Action.**

This instruction will provide comprehensive guidance and information to OSHNC employees when conducting compliance or consultative activities involving the enforcement of shipyard employment standards.

C. **Effective Date.**

This CPL becomes effective on the date of signature and will remain in effect until revised or canceled by the Director.

Signed on Original
Thomas Savage
Safety Standards Officer

Signed on Original
Allen McNeely
Director

4/30/04
Date of Signature

OSHA INSTRUCTION

U.S. DEPARTMENT OF LABOR — Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 02-00-133 | EFFECTIVE DATE: October 22, 2003

SUBJECT: Shipyard "Tool Bag" Directive

ABSTRACT

Purpose: To provide OSHA offices and interested industry, state, and federal agencies guidance concerning the application of occupational safety and health standards in shipyard employment. Also, to permit consistent compliance with and to ensure consistent enforcement of OSHA's shipyard employment standards.

Scope: OSHA-wide.

References:
A. 29 CFR 1910, General Industry Standards.
B. 29 CFR 1915, Shipyard Employment Standards.
C. Department of Labor 1999-2004 Strategic Plan.
D. OSHA 2003-2008 Strategic Management Plan.

Cancellations:
A. STD .2, Identification of General Industry Safety and Health Standards Applicable to Shipyard Work (November 4, 1985).
B. DIR 02-01 (CPL 2), Enforcement of Occupational Safety and Health Administration Standards for the Recreational Boat Building Industry (January 23, 2002).
C. STD 2.1, Application of Hazard Communication Standard to the Shipyard Employment Industry (January 20, 1987).

State Impact: State adoption not required.

Action Offices: National, Regional, and Area Offices.

Originating Office: Directorate of Enforcement Programs.

Contact: Directorate of Enforcement Programs
Office of Maritime Enforcement
200 Constitution Avenue, N.W., Room N-3610
Washington, DC 20210

By and Under the Authority of

John L. Henshaw
Assistant Secretary

Executive Summary

This instruction provides guidance to Occupational Safety and Health Administration (OSHA) national, regional, and area offices; industry employer and employee groups; and state programs and federal agencies concerning OSHA's policy and procedures for implementing intervention and inspection programs to reduce or eliminate workplace hazards related to shipyard employment. As detailed in the Department of Labor's Strategic Plan and supported by OSHA's Strategic Management Plan, the agency is particularly committed to focused interventions in the ship and boat building and repair industries to reduce injuries, illnesses, and fatalities.

This instruction is intended to provide, in an interactive electronic format, the tools necessary to successfully conduct interventions or inspections in shipyard employment. Relevant topics, briefly discussed in this instruction, are tied via interactive links to other sites so that the reader can obtain more detailed information. This instruction supports the Department of Labor's Strategic Plan, OSHA's Strategic Management Plan, and the agency's interest in developing web-based compliance tools.

Significant Changes:

This instruction provides tools to support intervention and inspection programs related to shipyard employment in a web-based interactive format. The instruction:

- Supports DOL's Strategic Plan Performance Goal 3.1C for increased emphasis on two of the most prevalent causes of workplace illnesses: silica and lead.
- Supports DOL's Strategic Plan Performance Goal 3.1D for increased emphasis on improving occupational safety and health in shipyard employment.
- Delivers available shipyard employment safety and health information in a web-based interactive format.

- Supports the reduction of occupational exposure to hazards through direct intervention; the promotion of a safety and health culture through compliance assistance, cooperative programs, and strong leadership; and supports the maximization of OSHA's effectiveness and efficiency by strengthening its capabilities and infrastructure.

- Provides OSHA compliance officers and consultants and other interested government and industry parties with information to support shipyard intervention efforts and to minimize employee exposure to hazards.

- Supports the National Emphasis Program (NEP) on Shipbreaking, and the Site-Specific Targeting (SST) program for the shipbuilding and ship repairing industries.

- Provides revised guidance regarding the applicability of 29 CFR 1910, General Industry Standards, to shipyard employment (Appendix A); consolidates answers to commonly asked questions related to shipyard employment into an appendix (Appendix B); and incorporates guidance from two other directives into this "Tool Bag" directive.

Table of Contents

I. Purpose. This Instruction provides national, regional, and area offices with guidance concerning OSHA's policy and procedures on the enforcement of safety and health standards for shipyard employment (i.e., ship repair, shipbuilding, and shipbreaking). In support of DOL's Strategic Plan, OSHA is particularly committed to focused interventions in the ship and boat building and repair industries to reduce injuries, illnesses, and fatalities. The intent of this instruction is to provide comprehensive guidance that will allow OSHA offices to establish or support intervention and inspection programs in the shipyard industry. Further, this instruction provides guidance and information to provide for compliance with shipyard standards and to ensure the consistent enforcement of these standards.

II. Scope. This instruction applies OSHA-wide to all programmed and unprogrammed compliance inspections, consultation interventions and other activities, such as compliance assistance, cooperative programs, training and education in the shipyard employment industry.

III. Cancellation. This instruction cancels or supersedes the following directives:

A. STD .2, "Identification of General Industry Safety and Health Standards Applicable to Shipyard Work," November 4, 1985.

B. DIR 02-01 (CPL 2), "Enforcement of Occupational Safety and Health Administration Standards for the Recreational Boat Building Industry," January 23, 2002.

C. STD 2.1, "Application of Hazard Communication Standard to the Shipyard Employment Industry," January 20, 1987.

IV. Significant Changes. This Instruction provides, in a web-based interactive format, the tools needed to support shipyard employment industry intervention and inspection programs. This instruction references numerous shipyard safety and health documents to provide ready access to the information. This instruction:

- Supports DOL's Strategic Plan Performance Goal 3.1C for increased emphasis on two of the most prevalent causes of workplace illnesses: silica and lead.

- Supports DOL's Strategic Plan Performance Goal 3.1D for increased emphasis on improving occupational safety and health in shipyard employment.

- Delivers available shipyard employment safety and health information in a web-based interactive format.

- Supports the reduction of occupational exposure to hazards through direct intervention; the promotion of a safety and health culture through compliance assistance, cooperative programs, and strong leadership; and supports the maximization of OSHA's effectiveness and efficiency by strengthening its capabilities and infrastructure.

- Provides OSHA compliance officers and consultants and other interested government and industry parties with information to support shipyard intervention efforts and to minimize employee exposure to hazards.

- Supports the National Emphasis Program (NEP) on Shipbreaking, and the Site-Specific Targeting (SST) program for the shipbuilding and ship repairing industries.

- Provides revised guidance regarding the applicability of 29 CFR 1910, General Industry Standards, to shipyard employment work sites (Appendix A).

- Consolidates answers to commonly asked shipyard employment industry questions into an appendix (Appendix B).

- Incorporates guidance from two other directives into this "Tool Bag" directive.

V. References.

A. 29 CFR Part 1910, General Industry Standards.

B. 29 CFR Part 1915, Shipyard Employment Standards.

C. 29 CFR Part 1919, Gear Certification Standards.

D. 29 CFR Part 1926, Construction Standards.

E. Department of Labor 1999-2004 Strategic Plan, Department of Labor Strategic Plan for Fiscal Years 1999-2004.

F. OSHA Strategic Management Plan 2003-2008, Occupational Safety and Health Administration (OSHA) Strategic Management Plan for Fiscal Years 2003-2008.

G. OSHA Directives.

- CPL 03-09 (CPL 02), Site-Specific Targeting 2003 (SST-03), October 20, 2003.

- CPL 2-0.102A, Procedures for Approval of Local Emphasis Programs (LEPs), November 10, 1999 (new number: CPL 04-00-001).

- CPL 2-0.129, OSHA's National Emphasis Program (NEP) on Shipbreaking, August 1, 2001 (new number: CPL 02-00-129).

- CPL 2-0.130, National Emphasis Program: Lead, July 20, 2001(new number: CPL 02-00-130).

- CPL 2-0.131, Recordkeeping Policies and Procedures Manual (RKM), January 1, 2002 (new number: CPL 02-00-131).

- CPL 2-0.51J, Enforcement Exemptions and Limitations Under the Appropriations Act, May 28, 1998 (new number: CPL 02-00-051).

- CPL 2-1.20, OSHA/U.S. Coast Guard Authority over Vessels, November 8, 1996 (new number: CPL 02-01-020).

- CPL 2-1.28A, Compliance Assistance for the Powered Industrial Truck Operators Training Standards, November 30, 2000 (new number: CPL 02-01-028).

- CPL 2-1.39, Enforcement of Cargo Gear Regulations and the Requirements for Gear Certification in the Maritime Program, March 24, 2003 (new number: CPL 02-01-039).

- CPL 2-2.63 (REVISED), Inspection Procedures for Occupational Exposure to Asbestos Final Rule 29 CFR Parts 1910.1001, 1926.1101, and 1915.1001, November 3, 1995 (new number: CPL 02-02-063).

- CPL 2.103, OSHA Field Inspection Reference Manual (FIRM), September 26, 1994 (new number: CPL 02-00-103).

- CPL 2.25I, Scheduling Systems for Programmed Inspections, January 4, 1995 (new number: CPL 02-00-025).

- STD 2-4.1, 29 CFR 1915, Subpart B, Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment – Inspection Procedures and Interpretive Guidance, June 23, 1995 (new number: STD 02-04-001).

- STD 2-4.2, 29 CFR 1915, Subpart I, Personal Protective Equipment (PPE) for Shipyard Employment – Inspection Procedures and Interpretive Guidelines, September 27, 1996 (new number: STD 02-04-002).

- STP 2.11, Maritime Jurisdiction in State Plan States, October 30, 1978 (new number: CSP 01-03-001).

- TED 8-0.2, OSHA Strategic Partnerships for Worker Safety and Health, November 13, 1998 (new number: CSP 03-02-001).

- TED 8.4, Voluntary Protection Programs (VPP): Policies and Procedures Manual, March 25, 2003 (new number: CSP 03-01-002).

- Special Emphasis Program (SEP) for Silicosis, May 2, 1996.

- Safety and Health Topics: Silica, Crystalline.

H. Other references.

- OSHA Maritime Web Page.
- OSHA Local Emphasis Programs (LEPs); most recent list (internal OSHA document).
- OSHA eTools.
- OSHA Notice, Safety and Health Program Management Guidelines ; Issuance of Voluntary Guidelines – 54:3904-3916, January 26, 1989.
- OSHA Publications. Telephone number (202) 693-1888; teletypewriter (TTY) (877) 889-5627.

VI. Expiration Date. This instruction will remain in effect until canceled or superseded by instruction or notice.

VII. Federal Program Change. This instruction describes a federal program change for which state adoption is not required.

NOTE: In order for OSHA to effectively enforce safety and health standards, guidance to compliance staff is necessary. Therefore, although adoption of this instruction is not required, states are expected to have enforcement policies and procedures which are at least as effective as those adopted by Federal OSHA. In the interest of national OSHA maritime policy, those states that cover shipyard employment, as well as those with public sector employees engaged in shipyard employment, are encouraged to follow the provisions in this instruction.

VIII. Action Information.

A. Responsible Office. Directorate of Enforcement Programs (DEP), Office of Maritime Enforcement (OME).

B. Action Offices. National, Regional, and Area Offices; Consultation Project Managers.

C. Information Offices. State Plan States.

IX. Actions Required. The policies and procedures set forth in this instruction are effective immediately and will remain in effect until canceled by proper authority. OSHA Regional Administrators, Area Directors, and National Office Directors must ensure that the policies and procedures set forth in this instruction are followed.

The Department of Labor's Strategic Outcome Goal 3.1 describes the linking of OSHA's compliance assistance and enforcement strategies, including the OSHA consultation program, to impact the hazards and industries targeted by OSHA's performance goals in a coordinated, complementary manner. Therefore, Regional Administrators must also ensure that State Plan State Designees and Consultation Program Managers in their regions are informed of the requirements of this instruction and encourage the involvement of Consultation Programs in shipyard employment.

X. Federal Agencies. This instruction describes a change that may affect federal agencies. It is the responsibility of the head of each federal agency to establish and maintain an effective and comprehensive safety and health program. Executive Order 12196, Section 1-201, and 29 CFR 1960.16 require federal agencies to adopt policies and procedures necessary to provide a level of protection equivalent to that provided by OSHA standards and regulation.

XI. Definitions.

A. *Data Initiative (a.k.a. Data Survey)*: The Data Initiative is a nationwide collection of establishment-specific injury and illness data from approximately 80,000 employers. The Data Initiative is OSHA's Annual Survey Form referenced in 29 CFR 1904.41.

B. *Days Away, Restricted, or Transferred (DART) Rate*: This includes cases involving days away from work, restricted work activity, and transfers to another job. The DART rate is calculated based on (N/EH) x (200,000) where N is the number of cases involving days away and/or job transfer or restriction, EH is the total number of hours worked by all employees during the calendar year, and 200,000 is the base for 100 full-time equivalent employees (2,000 hours per worker x 100 workers). The DART rate replaced the Lost Workday Injury and Illness (LWDII) rate effective January 1, 2002.

C. *Shipyard-Related Employment*: Any employment performed incidental to, or in conjunction with, ship repair, shipbreaking, and shipbuilding work, including, but not restricted to, inspection, testing, and employment as a watchman.

D. *Ship Repair*: Any repair of a vessel including, but not restricted to, alterations, conversions, installations, cleaning, painting, and maintenance work.

E. *Shipbreaking*: Any breaking down of a vessel's structure to dismantle the vessel, including the removal of gear, equipment, or any component of the vessel. This term is synonymous with "ship scrapping" and "ship disposal."

F. *Shipbuilding*: The construction of a vessel including the installation of machinery and equipment.

G. *Shipyard Employment*: This includes ship repairing, shipbuilding, shipbreaking, and related employments.

H. *Vessel*: Every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, including special purpose floating structures not primarily designed for or used as a means of transportation on water.

XII. Application. This instruction applies OSHA-wide to all interventions, inspections, and violation abatement assistance in shipyard employment. This instruction also applies to OSHA outreach efforts that include compliance assistance, cooperative programs, training, and education.

Further, this instruction applies to all state consultation programs with jurisdiction over shipyard employment. State consultation programs are expected to provide safety and health program assistance, training, education, and hazard identification and abatement assistance to shipyard employers.

When a new OSHA general industry standard (Part 1910) that applies to shipyard employment is promulgated after the effective date of this "Tool Bag" directive, such standard may be used even though it is not listed in Appendix A of this directive.

XIII. Background. The Department of Labor promotes the physical and economic well-being of workers and their families by fostering, among other things, safe and healthful workplaces that are free from discrimination. OSHA plays a critical role in supporting the DOL Quality Workplaces goal by carrying out programs designed to save lives, prevent injuries and illnesses, and protect the health of America's workers. This instruction is issued in support of DOL's Strategic Plan Performance Goals (Shipyards are a targeted high-hazard industry; lead and silica are targeted hazards). This instruction consolidates OSHA references and guidance related to shipyard employment into one "Tool Bag." To achieve the results required by the Department of Labor's performance goals, OSHA has been mandated to link compliance assistance and enforcement strategies, including the OSHA Consultation Program, to impact the targeted hazards and industries. For the shipyard industry, DOL's performance goal is to reduce injuries and illnesses by 20 percent over a five-year period.

XIV. Outreach and Cooperative Programs.

A. OSHA Website. OSHA's website has been developed to provide the latest assistance to employers and employees in all industries, including the maritime industry (i.e., shipyard employment, marine terminals, and longshoring). The website can be accessed at:

http://merlin.osha.gov/ (Intranet – Accessible to OSHA only.)
http://www.osha.gov/ (Internet – Accessible to the general public.)

In addition to general industry and construction topics, specific maritime employment and related information can be found at:

1. OSHA Assistance for the Maritime Industry. These pages are part of OSHA's commitment to provide maritime employers and workers with information and assistance to help in complying with OSHA standards and in ensuring safe and healthful workplaces.

   Information on these sites includes the following:

   - Maritime Standards and Policy Information. This page provides direct links to OSHA maritime standards and policy documents for obtaining information and guidance regarding these standards.

   - Maritime Topics. These include safety, health, and compliance information pertinent to a specific topic. This page contains links to related agencies and organizations that also can provide information or assistance to maritime employers and employees.

   - Publications. OSHA has developed numerous safety and health publications covering a variety of topics. The publications on this page are selected from OSHA's general publications list because they provide information related specifically to maritime employment:

     Maritime Safety and Health Topics: OSHA Publications

     This information, along with many other publications, may be obtained through OSHA's publications page.

     Hard copies are also available, along with other publications, by dialing (202) 693-1888; Teletypewriter (TTY) number is (877) 889-5627.

   - OSHA eTools. eTools are "stand-alone," interactive, web-based training tools on occupational safety and health topics. They are highly illustrated and use graphic menus. Some also use expert system modules, which enable the user to answer questions and receive reliable advice on how OSHA regulations apply to a particular worksite. The shipyard employment eTool addresses the entire group of 1915 regulations as they pertain to ship repair, shipbuilding and shipbreaking.

     OSHA eTools and Electronic Products for Compliance Assistance and Shipyard Employment eTool

   - Shipyard Fatality Videos. OSHA has produced shipyard fatality videos based on actual accidents. The videos describe incidents, factors that contributed to each fatality, and recommended abatement strategies. Copies of OSHA's videos are distributed to OSHA regions and consultation projects managers. Information and availability regarding these videos can be obtained by contacting:

Directorate of Science, Technology and Medicine
Directorate of Technical Support
200 Constitution Ave., NW, Room N3655
Washington, D.C. 20210

- Shipyard Hazard Information Prevention Sheets (SHIPS). Shipyards often do not have the benefit of full-time, on-board safety and health specialists. To address this situation and help prevent injuries and illnesses, the shipyard community and OSHA have jointly developed Safety and Health Injury Prevention Sheets (SHIPS). SHIPS provides the end-user with specific guidance and "Dos and Don'ts" with accompanying photographs for various shipyard processes.

- Training and Outreach. Significant portions of OSHA's resources are directed to training OSHA and industry personnel in safety, health, and compliance procedures. Links are provided to State Consultation Projects that provide on-site consultation and training.

2. Office of Maritime Enforcement (OME). This office provides support for the maritime industries (i.e., shipyard employment, marine terminals, and longshoring) including: comprehensive program guidelines, policies, procedures, technical assistance, and information dissemination. This involves but is not limited to the development of compliance interpretations, management and administration of the Part 1919 maritime cargo gear program, coordination of the activities of the agency's Maritime Steering Committee, development and coordination of maritime enforcement programs, and technical support for the Department of Labor's Office of the Solicitor. The office can be reached at (202) 693-2399, and its webpage provides contact information and links to related OSHA compliance, outreach, and maritime sites.

3. Inspection Data. Inspection data are accessible through OSHA's web page. This link will take the user directly to the "Statistics and Data" page. This page allows the user to conduct searches by establishment, Standard Identification Classification (SIC) code [to be changed to the North American Industry Classification System (NAICS) effective October 1, 2005], OSHA inspection number, accidents, and frequently cited standards. The page also contains links to the Bureau of Labor Statistics (BLS) for inspection data and statistics. The Standard Industrial Classification (SIC) codes that apply to shipyard employment include: 3731, Shipbuilding and Repairing; 3732, Boat Building and Repairing; and 4499, Water Transportation Systems (Dismantling Ships).

B. State Consultation Programs. Consultation assistance in all states is available from State Consultation Programs for employers who want help in establishing and maintaining a safe and healthful workplace. Priority scheduling is provided to small employers with 250 or fewer employees at the worksite. Consultants help employers identify and correct specific hazards and can assist in developing and implementing

effective workplace safety and health programs with emphasis on preventing worker injuries and illnesses. Employers also may receive training and education assistance, along with limited assistance away from the worksite. Serious hazards identified by the consultant must be corrected by a due date mutually agreed upon by the consultant and the employer.

C. Recognition Programs. OSHA's Strategic Management Plan Goal 2 requires OSHA to promote a safety and health culture through compliance assistance, cooperative programs, and strong leadership. In keeping with this goal, OSHA has developed recognition programs to assist and support employer safety and health activities:

1. Safety and Health Achievement Recognition Program (SHARP). This program, operated by the State Consultation entities, recognizes the achievement of employers who operate exemplary safety and health management systems at their worksites. Participants in the SHARP program are granted exemption from programmed inspections (not complaint or accident investigations) for a minimum of one year. The Consultation Project Manager can recommend an exemption of up to two years, when a SHARP site is renewed.

2. Voluntary Protection Program (VPP). The VPP represents OSHA's effort to extend worker protection beyond the minimum required by OSHA standards. This program, along with others such as expanded onsite consultation services and compliance assistance provided by full-service area offices, are cooperative approaches which, when coupled with an effective enforcement program, expand worker protection to help meet the goals of the Occupational Safety and Health Act of 1970.

   Qualified sites are approved to one of three programs: Star, Merit, and Star Demonstration (recognition for worksites that address unique safety and health issues). This program recognizes outstanding achievement of those who have successfully implemented comprehensive safety and health management systems. The program strives to motivate employers to achieve excellent safety and health results in their companies. It also strives to establish a relationship based on cooperation between employers, employees, and OSHA.

   TED 8.4, Voluntary Protection Programs (VPP): Policies and Procedures Manual, March 25, 2003.

D. OSHA Strategic Partnership Program (OSPP). DOL's Strategic Plan Performance Goals 3.1C and 3.1D require offices to develop partnerships and other cooperative efforts with the shipyard industry to identify and address significant workplace hazards, emphasizing those hazards targeted (e.g., *hazards in shipyard employment, lead, silica*).

The primary objective of partnerships is to leverage OSHA's resources and transform the agency into an organization that works more effectively and efficiently to serve its

customers. A partnership is a voluntary relationship between OSHA, industry, and employee groups in which each party has equal status and a certain independence, but also an explicit or formal obligation to the other. OSHA partnerships vary by industry, but one essential characteristic exists in all: the desire to use collaborative or interest-based problem solving to resolve workplace issues. By changing behaviors and attitudes, partnerships can be an effective, non-adversarial tool for increasing the quality of employer's safety and health programs.

E. OSHA Alliance Program. OSHA's Alliance Program enables organizations committed to workplace safety and health to collaborate with OSHA to prevent injuries and illnesses in the workplace. OSHA and its allies work together to reach out to, educate, and lead the nation's employers and their employees in improving and advancing workplace safety and health. OSHA's Alliance with the Shipbuilder's Council of America is one example of OSHA's shipyard Alliances.

F. Other Shipyard Resources. While OSHA considers the entities below to be valuable resources for information concerning safe and healthful workplace practices in the shipyard industry, employers accessing such information are not absolved of their obligations to comply with the Occupational Safety and Health (OSH) Act and standards promulgated pursuant to the OSH Act. Applying the recommendations or practices offered by these entities does not necessarily constitute compliance with the OSH Act and OSHA standards. In addition, OSHA does not control the publication of information on the websites listed in this section and cannot vouch for the accuracy, reliability, or timeliness of every piece of information contained in these websites.

1. American Shipbuilding Association (ASA). The ASA is the national trade association that represents shipbuilders who design and build some of the most technologically advanced ships in the world. More information can be obtained at the association's website.

2. Shipbuilders Council of America (SCA). The SCA is an industry advocacy group that also works with shipyards and associated groups to develop industry consensus on important issues to the maritime industry. The SCA meets in conjunction with the American Waterways Operators (AWO), the national trade organization representing the inland coastal barge and towing industry. The SCA is organized around four standing committees: Safety, Health and Human Resources; Repair; New Construction; and Cleaning Facilities. More information can be obtained at the council's website. The SCA also provides training materials for the shipyard employment industry (such as crane safety, ergonomics, and shipyard safety orientation videos).

3. The National Shipbuilding Research Program (NSRP). The National Shipbuilding Research Program is led by a collaboration of 11 U.S. shipyards, working as a team with government, industry and academia, whose stated mission is to manage and focus national shipbuilding research and development funding

on technologies that will reduce the cost of warships to the U.S. Navy and will establish U.S. international competitiveness. NSRP also provides a collaborative forum to improve business acquisition processes. More information can be obtained at the program's website.

4. The American Waterways Operators (AWO). The American Waterways Operators (AWO) association represents the owners and operators of tugboats, towboats and barges. The AWO's mission is to promote the economic soundness of the industry, and to promote safe, efficient, and environmentally responsible transportation of goods and freight, through advocacy, public information, and the establishment of safety standards. More information can be obtained at the association's website.

XV. Training. Training consists of both internal training for OSHA consultation and enforcement staff, and external training for shipyard employers and employees. Training sources include: the OSHA Office of Training & Education, State Consultation and Training Programs, OSHA Area Offices, U.S. Merchant Marine Academy, and recipients of state and federal training grants.

A. OSHA Office of Training & Education (OTE). OSHA's Office of Training & Education in Arlington Heights, IL, provides basic and advanced training and education in safety and health for federal and state compliance officers; state consultants; other federal agency personnel; and private-sector employers, employees, and their representatives. Institute courses cover areas such as: maritime standards (Course # 206), electrical hazards, health hazards, machine guarding, cranes, and rigging. The institute facility includes classrooms, laboratories, a library, and an audiovisual unit. The OSHA Office of Training & Education also has established OSHA Training Education Centers to address the increased demand for its courses from the private- sector and from other federal agencies. These centers are non-profit colleges, universities, and other organizations that have been competitively selected to participate in the program. OSHA Training Education Centers are located in various parts of the United States.

Registration information and course schedules are available on the OTE Registration Information/Course Schedule web page.

B. State Consultation and Training Programs. State Consultation and Training Programs can provide a variety of on-site training (basic through advanced) and education for private-sector employers, employees, and their representatives. They offer a wide variety of both general and employer-specific courses that cover areas such as electrical hazards, machine guarding, ventilation, and ergonomics.

C. U.S. Merchant Marine Academy. In conjunction with OTE, a shipyard industry processes training course has been developed by the U.S. Merchant Marine Academy in Kings Point, New York. The purpose of this course is to introduce the basics of shipyard processes, including shipbuilding, ship repair, and shipbreaking. The course

focuses on shipyard terminology, vessel configurations, and shipyard facilities and layouts. This course is available to OSHA compliance officers and all other interested parties.

D. Federal Training Grants. OSHA offers funds to nonprofit organizations to train employers and employees to recognize, avoid, and prevent safety and health hazards in their workplaces.

XVI. Enforcement Program. In order to carry out the purpose of the Occupational Safety and Health Act and the mandates in DOL's Strategic Plan and OSHA's Strategic Management Plan, OSHA compliance officers may enter places of shipyard employment to conduct programmed inspections or to investigate complaints, referrals, catastrophes (i.e. hospitalization of three or more employees), and fatal incidents. General inspection criteria and contact information can be found in OSHA Instruction CPL 2.103, OSHA Field Inspection Reference Manual.

A. Inspection Scheduling. The shipyard industry is made up of several industrial activities, and due to the unique differences among these activities, several scheduling methods are necessary. Consequently, shipyard employment inspections can be scheduled as National Emphasis Programs (NEP), Site Specific Targeting (SST), or Local Emphasis Programs (LEP). The NEP for lead, as well as the Special Emphasis Program (SEP) for silica, also apply to shipyard employment. All other scheduled shipyard employment inspections would be conducted under LEPs that support OSHA's Areas of Emphasis.

1. National Emphasis Programs (NEPs). Guidance for conducting National Emphasis Program inspections in shipyard employment follow:

- CPL 03-02 (CPL 2), Site Specific Targeting 2003 (SST-03), June 18, 2003.
- CPL 2-0.129, OSHA's National Emphasis Program (NEP) on Shipbreaking, August 1, 2001.
- CPL 2-0.130, National Emphasis Program on Lead, July 20, 2001.
- Special Emphasis Program (SEP) for Silicosis, May 2, 1996.

  Safety and Health Topics: Silica, Crystalline

All other scheduled shipyard inspections would be conducted under LEPs that support DOL's Strategic Plan and OSHA's Strategic Management Plan Goals.

2. Local Emphasis Programs (LEPs). LEPs are a type of Special Emphasis Program as described in OSHA Instruction CPL 2.25I. One or more area offices in a region can participate. LEPs may be originated at the Area Office or Regional level.

   - CPL 2-0.102A, Procedures for Approval of Local Emphasis Programs (LEPs), November 10, 1999.

   LEPs are generally based on knowledge of local industry hazards or knowledge of local industry injury/illness rates. LEPs may include targeting of employers with 10 or fewer employees, as long as they do not conflict with restrictions under Congressional Appropriations Act riders described in OSHA Instruction CPL 2-0.51J or successor guidance.

   The most recent list of OSHA Local Emphasis Programs (LEPs) in effect can be reviewed at the Directorate of Enforcement Program's (DEP's) 'Internal Memos' web page (this is an internal document not available to the public).

3. Inspection Lists. These lists consist of shipyards from which inspections will be scheduled. Regional and area offices are responsible for generating establishment lists that meet the criteria in OSHA Instruction CPL 2.25I. These lists are updated from sources such as the Navy, MARAD, and industry, as the information becomes available.

4. Scheduling Priorities. OSHA's priority system for conducting inspections is designed to distribute available resources effectively to ensure that a high level of protection is provided to workers throughout the nation. The inspection order of priority is:

   - Imminent danger, fatalities and catastrophes;

     CPL 2.113, Fatality Inspection Procedures, April 1, 1996.

   - Complaints/referrals;

     CPL 2.115, Complaint Policies and Procedures, June 14, 1996.

   - Programmed inspections;

     CPL 2.25I, Scheduling System for Programmed Inspections, January 1, 1995.

B. Inspection Procedures. General information on interventions and inspections can be found in OSHA Instruction CPL 2.103, OSHA Field Inspection Reference Manual.

   For shipyard intervention and inspection work specifically, OSHA supervisors, team leaders and CSHOs are advised of the following:

1. Preparation. To conduct an effective shipyard inspection the CSHO must spend an adequate amount of time preparing. Supervisors or team leaders are responsible for ensuring CSHOs are qualified by either training or experience to inspect/intervene in shipyard establishments.

2. Inspection Materials and Equipment. Before participating in any shipyard interventions or inspections, CSHOs must be properly equipped and attired. All necessary personal protective equipment (PPE) must be available for use and in proper operating condition. CSHOs must be trained in the uses and limitations of PPE before beginning the inspection. All testing and monitoring equipment also must be in good condition. CSHOs must be thoroughly trained in the proper use of all monitoring equipment before assignment to any shipyard inspection. It may be advisable for CSHOs to carry an O2-LEL meter when conducting vessel inspections.

3. Safety and Health Rules of the Shipyard. 29 CFR 1903.7(c) requires the CSHO to comply with all safety and health rules and practices at the shipyard, and wear or use the safety clothing or protective equipment required by OSHA standards or by the employer for the protection of employees.

4. Maritime Standard Alleged Violation Elements (SAVEs). Current Maritime SAVEs are available for CSHOs. In a joint effort by Directorate of Enforcement Programs (DEP)/Office of Maritime Enforcement (OME) and selected OSHA field offices, Maritime SAVEs have been developed to provide 100 percent coverage of all enforceable standards for the maritime industries: shipyard employment, marine terminals, and longshoring. The Maritime SAVEs provide SAVEs and their respective Alleged Violation Descriptions (AVDs) that have been specifically tailored for maritime applications. OME is responsible for maintaining the Maritime SAVEs.

C. Multi-employer Worksites. For multi-employer worksites at shipyards, more than one employer may be liable for a hazardous condition that violates an OSHA standard. The process which must be followed in determining whether more than one employer is liable for employee safety and health can be found in OSHA Instruction CPL 2-0.124, Multi-Employer Citation Policy.

   The regional Solicitor's Office is available to address issues concerning the application of the Multi-employer Worksite doctrine.

D. Application of Shipyard Employment (29 CFR Part 1915) and General Industry Safety and Health Standards (29 CFR Part 1910) to Ship/Boat Yards. This section offers guidance regarding the application of the Shipyard Employment Standards (Part 1915) and the General Industry Safety and Health Standards (Part 1910) to shipyards and boatyards. The application of the standards varies by location.

1. Shipyards and Boatyards Located On or Adjacent to Navigable Waterways. Employees performing ship or boat building, repairing, or breaking operations and related activities on or adjacent to a navigable waterway of the United States are covered by the shipyard and applicable general industry standards. This includes dry docks, graving docks, marine railways, and other facilities located on the water, or in close proximity to the water. As noted within the respective standard paragraphs, some of the 29 CFR Part 1915 Shipyard Employment provisions do not apply to shipbuilding or shipbreaking *(e.g., 1915.77(b) through (d) do not apply to shipbreaking)*[1]. Application of the 29 CFR Part 1910 standards is addressed in Appendix A.

   When a Shipyard Employment Standard (29 CFR Part 1915) is specifically applicable to a condition, practice, means, method, operation, or process, it takes precedence over any General Industry Safety and Health Standard (29 CFR Part 1910) which might otherwise be applicable. However, General Industry Safety and Health Standards (29 CFR Part 1910) can be applied where coverage of a Shipyard Employment Standard (29 CFR Part 1915) is either limited or absent. Nevertheless, the application of certain General Industry Standards can be limited by their Scope and Application statements. In these cases, the General Duty Clause can be used, where appropriate, to cite recognized hazards not covered by a specific standard.

   Where a Shipyard Employment Standard (29 CFR Part 1915) is applicable but the employer has complied with a General Industry Safety and Health Standard (29 CFR Part 1910) that provides equivalent protection for the same workplace condition or hazard, OSHA will consider the employer to be in *de minimis* violation of OSHA regulations. *De minimis* violations carry no penalties and do not require abatement, and OSHA does not issue citations. It is emphasized that this would not apply to a situation where the Part 1915 standard provides greater or additional worker protection. For example, 1915.132(c) requires the switch for a portable electric tool to be of a type that must be manually held in the closed position, while 1910.243(a)(2) allows a different type of switch with less stringent requirements. For shipyard employment, the more protective provisions of 1915.132(c) must be complied with.

2. Boatyards Not On a Navigable Waterway. 29 CFR Part 1910 contains the applicable safety and health standards for boat building and manufacturing facilities, including recreational boats, that are not located adjacent to or on United States' navigable waters.

E. Violation Abatement Assistance Program. One of DOL's Strategic Plan performance goals is to reduce workplace injuries and illnesses in the shipyard industry by four percent each year during the period 2003-2008. To help meet this goal, shipyard industry employers are encouraged to seek advice and off-site consultation. The

[1] 1915 Subparts B and I are applicable to shipyard employment including vessels, vessel sections, and on landside operations regardless of geographic location.

employer should make these requests by writing, calling, or visiting the nearest OSHA office.

XVII. Coordination. This instruction will be coordinated by the Directorate of Enforcement Programs (DEP). Questions and comments should be directed to the Office of Maritime Enforcement (OME).

XVIII. Program Evaluation. During interventions and inspections, area offices will continue to collect data and information such as OSHA 200/300 Log entries and calculate reductions in DART rates (see definition paragraph XI.B.) to measure the effectiveness of OSHA's initiatives to improve shipyard employment safety and health. Area offices will forward this information to their respective regional offices. At the end of each fiscal year, after summarizing the data and information, the regional offices will forward the summary to the National Office, Directorate of Enforcement Programs (DEP). DEP also will serve a coordinating role, collecting information from regional offices on best practices in shipyard employment and, after review and evaluation, disseminating the information to regional offices and the Office of Training & Education (OTE).

Appendix A: Application of 29 CFR Part 1910 Standards to 29 CFR Part 1915 Shipyard Employment

This appendix has been developed specifically to assist OSHA Area Office personnel during inspections of work places covered by 29 CFR Part 1915. The appendix identifies provisions of general industry safety and health standards (29 CFR Part 1910) that are applicable to shipyard employment; it also provides guidance regarding Part 1910 provisions that generally are preempted by corresponding Part 1915 provisions. As such, this appendix should clarify, under most circumstances, the specific occupational safety and health requirements for shipyard employment. However, this appendix cannot, and is not intended to, enlarge or diminish employers' obligations under the OSH Act.

While every effort has been made to identify those Part 1910 provisions that are applicable to shipyard work, it is not possible to anticipate every occupational hazard related to shipyard employment, and there likely will be limited circumstances in which provisions from a Part 1910 standard, which are not identified below or which are identified as generally preempted by a corresponding Part 1915 provision, properly apply to shipyard employment. However, in order to assure consistent and deliberate enforcement of the Act, no Part 1910 standard other than those designated in this appendix as applicable to shipyard employment will be cited without the approval of both the Regional Office and National Office (Director, Directorate of Enforcement Programs).

Alleged violations for hazardous conditions involving any identified Part 1910 standard will continue to be cited with the Part 1910 designation. The Area Director shall cite alleged violations involving externally referenced standards (e.g., ANSI, NEC, NFPA) to include the specification of the referenced standard in addition to the applicable provision of Part 1910 or Part 1915. The Area Director shall issue citations under the General Duty Clause in appropriate circumstances where employees are exposed to recognized hazards that are covered by neither shipyard employment (Part 1915) nor applicable general industry safety and health regulations (Part 1910).

When a new OSHA general industry standard (Part 1910) that applies to shipyard employment is promulgated after the effective date of this directive, provisions from such standard may be cited without approval from Regional and National Offices, even though they are not listed in this appendix. The appendix will be revised to reflect changes as revisions of Part 1910 and Part 1915 are promulgated. As required, the Director, Directorate of Enforcement Programs, will provide interim guidance regarding the applicability of standards issued after the "Tool Bag" directive's effective date.

The Part 1915 standards apply to all ship repair, shipbuilding, and shipbreaking employments and related employments on the navigable waters of the United States (includes dry docks, graving docks and marine railways) or at facilities located adjacent to navigable waters. Subpart B – *Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment*, and Subpart I – *Personal Protective Equipment*, apply to shipyard employment work in vessels and vessel sections and on land-side operations regardless of geographic location. In addition,

employers covered by the Act generally are required to adhere to OSHA's standards of general applicability (Part 1910). Where coverage of a hazard by a Part 1915 standard is either limited or absent, Part 1910 standards should be cited when applicable.

The relationship between the two existing sets of regulations is addressed by the agency's procedural rule 29 CFR 1910.5(c), which states:

> (c)(1) If a particular standard is specifically applicable to a condition, practice, means, method, operation, or process, it shall prevail over any different general standard that might otherwise be applicable to the same condition, practice, means, methods, operation, or process…
>
> (c)(2) On the other hand, any standard shall apply according to its terms to any employment and place of employment in any industry, even though particular standards are also prescribed for the industry…to the extent that none of such particular standards applies.

The appendix will be revised to correct any errors concerning the application of Part 1910 and Part 1915 standards to shipyard employment as unforeseen or unconsidered workplace hazards are identified during inspections or through other reliable information available to the Agency. Comments regarding this appendix should be forwarded via the respective OSHA Regional Office to the Directorate of Enforcement Programs. The office responsible for maintaining this appendix is the Office of Maritime Enforcement.

In this appendix, the applicability of each Part 1910 standard as it pertains to shipyard employment on vessels (including vessel sections) and shore-side operations (land-side operations, excluding vessels and vessel sections) is indicated with a "Yes", "Yes*" (partial coverage), or "No." Additionally, "Remarks/Comments" are provided to further clarify the applicability of the Part 1910 standard, including a reference to any Part 1915 standard that generally takes precedence pursuant to Part 1910.5, *Applicability of Standards*.

Subpart D: Walking - Working Surfaces

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.22	Yes*	Yes*	1910.22(b)(1){last sentence}, (b)(2) and (d) apply on vessels and on shore for walking and working surfaces general requirements. Also, 1910.22(c) applies on shore. Generally preempted are: 1910.22(a) & (b)(1){first sentence} by 1915.91. 1910.22(c) by 1915.73 on vessels only.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.23	Yes*	Yes	1910.23 applies on shore for guarding of deck openings and edges; 1915.73 applies on vessels for guarding of deck openings and edges; 1910.23 applies to working conditions on vessels not addressed by 1915.73. Generally preempted are: 1910.23(a)(8)&(9) by 1915.73(b) on vessels only. 1910.23(c)(1) by 1915.73(d) on vessels only. NOTE: For 1915.73(d) situations that prohibit the use or installation of guardrails (i.e., not feasible), fall protection IAW 1915.158, 1915.159 and 1915.160, as appropriate, is required. NOTE: For shipbreaking operations 1915.73 does not apply to the guarding of deck openings and edges. Employee exposure to guarding hazards for shipbreaking operations shall be addressed by applying 1915.152(b), *Hazard Assessment and Equipment*. Fall protection IAW 1915.158, 1915.159 and 1915.160, as appropriate, may also be required.
.24	Yes*	Yes	1910.24 applies on shore and on vessels to fixed industrial stairs that ***are not*** a permanent part of the vessel (i.e., stairs brought in and installed for use during vessel construction, repair or overhaul to support worker access to the vessel or within the vessel). Also, 1910.24(a), (b), (f) and (h) apply to the conditions and use of fixed stairs that ***are*** a permanent part of the vessel. The 1910.24(c), (d), (e), (g) and (i) design specifications do not apply to fixed stairs that ***are*** a permanent part of the vessel. NOTE: Design specifications for vessels (including fixed stairs) are addressed on U.S. "Inspected" vessels by Coast Guard regulations (46 CFR), on foreign flag vessels by foreign standards and various International Vessel Classification Society rules (e.g., Bureau Veritas – France, Det Norske Veritas – Norway, Nippon Kaiji Kaokai – Japan, Lloyd's Register of Shipping – England), and on "Un-inspected" vessels by a variety of standards, recommended guidelines, and established industry practice. Any hazardous conditions that employees are exposed to related to design will be cited using the standard under which the vessel fixed stairs were designed (verify by vessel drawings, documentation, publications, etc.) using the General Duty Clause.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.25	Yes*	Yes*	1915.72 applies on vessels and on shore for portable wood ladders; 1910.25 applies to working conditions on vessels and on shore not addressed by 1915.72 as follows: 1910.25(a), (b)(1), (c)(2), (c)(3)(i)-(iv), (c)(4), (c)(5), (d)(1)(ii)-(xi), (d)(2)(i)-(v), (d)(2)(ix)-(xiv), and (d)(2)(xvii)-(xx). Generally preempted are: 1910.25(c)(3)(v) by 1915.71(e)(1) 1910.25(d)(1)(i) by 1915.72(a)(1) 1910.25(d)(2)(viii) by 1915.72(a)(1) 1910.25(d)(2)(xv) by 1915.72(a)(3)
.26	Yes*	Yes*	1915.72 applies on vessels and on shore for portable metal ladders; 1910.26 applies to working conditions on vessels and on shore not addressed by 1915.72 as follows: 1910.26(a)(1)-(c)(1), (c)(2)(vi), and (c)(3). Generally preempted are: 1910.26(c)(2)(iv) by 1915.72(a)(1) 1910.26(c)(2)(vii) by 1915.72(a)(1)
.27	Yes*	Yes	1910.27 applies on shore for fixed ladders; 1915.76 applies on vessels for fixed ladders in cargo holds and confined spaces, and 1910.27(f) applies to the conditions and use of all fixed ladders on vessels. NOTE: Design specifications for vessels (including fixed ladders) are addressed on U.S. "Inspected" vessels by Coast Guard regulations (46 CFR), on foreign flag vessels by foreign standards and various International Vessel Classification Society rules (e.g., Bureau Veritas – France, Det Norske Veritas – Norway, Nippon Kaiji Kaokai – Japan, Lloyd's Register of Shipping – England), and on "Un-inspected" vessels by a variety of standards, recommended guidelines, and established industry practice. Any hazardous conditions that employees are exposed to related to design will be cited using the standard under which the vessel fixed ladders were designed (verify by vessel drawings, documentation, publications, etc.) using the General Duty Clause.
.28	Yes*	Yes*	1915.71 applies on vessels and on shore for scaffolding; 1910.28 applies to working conditions on vessels and on shore not addressed by 1915.71 as follows: 1910.28(a)(1), (a)(2){1st sentence}, (a)(5){2nd sentence), (a)(7), (a)(9), (a)(10), (a)(11), (a)(14)-(24), (a)(26), (b)(3), (b)(4), (b)(6), (b)(10), (b)(11), (b)(12){2nd & 3rd sentences}, (b)(13), (b)(14), (b)(15){3rd sentence}, (b)(16){2nd & 3rd sentences}, (b)(17), (c)(1)-(5), (c)(7)-(13), (c)(14){3rd sentence}, (d)(1)-(6), (d)(7){3rd sentence}, (d)(8)-(14), (e), (f)(1)-(14), (f)(15){3rd sentence}, (f)(16), (f)(17), (g)(1)-(4), (g)(5){3rd sentence}, (g)(6)-(12), (h)(1)-(7), (h)(8){3rd sentence}, (h)(9), (h)(10), (i)(1)-(4), (i)(5){4th sentence}, (i)(6)-(10), (j), (k)(1)-

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
			(4), (k)(5){3rd sentence}, (l), (m)(3)-(5), (m)(7){3rd sentence}, (n), (o)(1), (o)(2){3rd sentence}, (o)(3)-(4), (p)(2)-(6), (p)(7){3rd sentence}, (q), (r), (s), (t) and (u). Generally preempted are: 1910.28(a)(2){2nd sentence} by 1915.71(b)(6) 1910.28(a)(4) by 1915.71(b)(1) 1910.28(a)(5){1st sentence} by 1915.71(b)(5) 1910.28(a)(6) by 1915.71(b)(5) 1910.28(a)(8) by 1915.71(b)(4) and (i) 1910.28(a)(12) by 1915.71(k) 1910.28(a)(13) by 1915.71(i)(3) 1910.28(a)(25) by 1915.71(b)(3) 1910.28(a)(27) by 1915.71(b)(8) 1910.28(b)(1) by 1915.71(c)(1) 1910.28(b)(2) by 1915.71(c)(3) 1910.28(b)(5) by 1915.71(c)(4) & (c)(5) 1910.28(b)(7) by 1915.71(c)(4) 1910.28(b)(8) & (9) by 1915.71(c)(6) 1910.28(b)(12){1st sentence} by 1915.71(i)(3) [Planking] 1910.28(b)(15){1st sentence} by 1915.71(j)(1) [Guardrails] 1910.28(b)(15){2nd sentence} by 1915.71(j)(5)[Toeboards] NOTE: 1915.71(j)(1) & (5) also preempt the 1st & 2nd sentences of 1910.28(c)(14), (d)(7), (f)(15), (g)(5), (h)(8), (k)(5), (m)(7), (o)(2), (p)(7) for planking, guardrails and toeboards. 1910.28(b)(16){first sentence} by 1915.71(c)(7) 1910.28(c)(6) by 1915.71(b)(7) 1910.28(i)(5) by 1915.71(j)(1) & (j)(5) 1910.28(m)(1) & (2) by 1915.71(g)(1) 1910.28(m)(6) by 1915.71(g)(4) 1910.28(m)(7){1st & 2nd sentences} by 1915.71(g)(6)
.29	Yes	Yes	1910.29 applies on vessels and on shore for manually propelled mobile ladder stands and scaffolds (towers); no applicable 1915 standard.
.30	No	Yes	1910.30 applies on shore for other working surfaces; 1915.74 &1915.75 apply on vessels.

Subpart E: Means of Egress

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.36	No	Yes	1910.36 applies on shore for egress general requirements; 1910.36(a) prohibits the use of Part 1910, Subpart E standards to exits from vessels. Part 1915 standards related to access/egress include but are not limited to: 1915.51(c)(2) [Confined Space access & ventilation], 1915.72(k) [Access to staging], 1915.74 [Access to vessels], 1915.75 [Access to and guarding of dry docks & marine railways], 1915.76 [Access to cargo spaces & confined spaces], and 1915.91 [Access to aisles, passageways, walkways & exits]. NOTE: There is a proposed rule for 29 CFR Part 1915, Fire Protection in Shipyard Employment [Federal Register; Wednesday, December 11, 2002] that would change egress requirements.
.37	No	Yes	1910.37 applies on shore for means of egress; 1910.36(a) prohibits the use of Part 1910, Subpart E standards to exits from vessels. NOTE: There is a proposed rule for 29 CFR Part 1915, Fire Protection in Shipyard Employment [Federal Register; Wednesday, December 11, 2002] that would change egress requirements.
.38	No	Yes	1910.38 applies on shore for employee emergency plans and fire prevention plans; 1910.36(a) prohibits the use of Part 1910, Subpart E standards to exits from vessels. 1915.52 addresses fire prevention on vessels. 1915.12(e) addresses shipyard rescue teams for confined and enclosed spaces and other dangerous atmospheres. NOTE: There is a proposed rule for 29 CFR Part 1915, Fire Protection in Shipyard Employment [Federal Register; Wednesday, December 11, 2002] that would change shipyard requirements for emergency plans and fire prevention plans.

Subpart F: Powered Platforms, Manlifts, and Vehicle Mounted Work Platforms

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.66	No	Yes	1910.66 applies on shore; 1910.66(a) limits the application of this standard to building maintenance.
.67	Yes	Yes	1910.67 applies on vessels and on shore for vehicle-mounted elevating & rotating work platforms; no applicable 1915 standard.
.68	No	No	1910.68 covered operations for manlifts are not known to occur in shipyard employment.

Subpart G: Occupational Health and Environmental Control

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.94	Yes*	Yes*	1910.94 applies on vessels and on shore for ventilation; however 1910.94(a)(2) and (a)(5) are generally preempted on vessels and on shore by 1915.34(c) and 1915 Subpart I - PPE.

.95	Yes	Yes	1910.95 applies on vessels and on shore for occupational noise exposure; no applicable 1915 standard.
.97	Yes	Yes	1910.97 applies on vessels and on shore for non-ionizing radiation; this standard is not preempted by 1915.95 which addresses working aloft on ship radars.

Subpart H: Hazardous Materials

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.101	Yes*	Yes	1910.101 applies on vessels and on shore for compressed gases general requirements; except that on vessels 1915.55 applies to oxygen, acetylene and other fuel gas cylinders used for welding & cutting. Reference should also be made to applicable Compressed Gas Association (CGA) pamphlets.
.102	No	Yes	1910.102 applies on shore for the in-plant transfer, handling, storage, and utilization of acetylene; on vessels 1915.55 applies to acetylene cylinders used for welding & cutting. Reference should be made to applicable Compressed Gas Association (CGA) pamphlets.
.103	Yes	Yes	1910.103 applies on vessels and on shore for liquefied & gaseous hydrogen systems; no applicable 1915 standard.
.104	No	Yes	1910.104 applies on shore for bulk oxygen systems; 1915.55 applies on vessels to oxygen cylinders used for cutting & welding.
.105	No	Yes	1910.105 applies on shore. NOTE: 1910.105 is limited to in-plant use of nitrous oxide which is only known to apply shore side.
.106	Yes	Yes	1910.106 applies on vessels and on shore for covered flammable and combustible liquids operations. NOTE: Not applied to the fuel tanks that are part of the vessel.
.107(b)	Yes	Yes	1910.107(b) applies on vessels and on shore for spray booths. NOTE: Spray booths are usually located on shore in shipyards.
.107(c)	Yes	Yes	1910.107(c) applies on vessels and on shore for electrostatic painting.
.107(d)	No	Yes	1910.107(d) applies on shore and 1915.35 & .36 applies on vessels for ventilation and exhaust systems.
.107(e)	Yes	Yes	1910.107(e) applies on vessels and on shore for flammable and combustible liquids (storage and handling); the requirements of 1915.36 also apply but do not preempt any portion of 1910.107(e).
.107(f)	No	Yes	1910.107(f) applies on shore for sprinklered buildings.
.107(g)	Yes*	Yes	1910.107(g) applies on vessels and on shore for spray booth operations and maintenance; except for 1910.107(g)(2){2nd sentence} which is generally preempted by 1915.35(b)(6) for non-sparking tools used in painting spaces, and 1910.107(g)(5) which is generally preempted by 1915.32 & 1915.33 for cleaning solvents.
.107(h)	Yes	Yes	1910.107(h) applies on vessels and on shore for fixed electrostatic spraying equipment; no applicable 1915 standard.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.107(i)	Yes	Yes	1910.107(i) applies on vessels and on shore for electrostatic hand spraying equipment; no applicable 1915 standard.
.107(j)	Yes	Yes	1910.107(j) applies on vessels and on shore for drying, curing or fusion apparatus associated with spraying; no applicable 1915 standard.
.107(k)	No	Yes	1910.107(k) applies on shore for the undercoating of vehicles in garages; is not known to occur in shipyards.
.107(l)	Yes	Yes	1910.107(l) applies on vessels and on shore for powder coating; no applicable 1915 standard.
.107(m)	Yes	Yes	1910.107(m) applies on vessels and on shore for organic peroxides and dual component coatings; no applicable 1915 standard.
.107(n)	Yes	Yes	1910.107(n) applies on vessels and on shore for flammable and combustible finishing materials applied as a spray by compressed air; no applicable 1915 standard.
.109	Yes	Yes	1910.109 covered operations for explosives and blasting agents could be applied, but are not known to occur on shore in shipyard employment. On vessels, the only known use of explosives is that divers use detonating cord to remove propellers during ship repair.
.110	Yes	Yes	1910.110 applies on vessels and on shore for the storage and handling of liquefied petroleum gases; no applicable 1915 standard. NOTE: 1910.110 cannot be applied to vessel systems and equipment that are a permanent part of the vessel; however, it can be applied to interchangeable portable tanks that supply gas to vessel systems.
.111	Yes	Yes	1910.111 applies on vessels and on shore for the storage and handling of anhydrous ammonia; Per 1910.111(a)(1)(ii)(a) this standard does not apply to ammonia manufacturing plants or to refrigeration plants where ammonia is used solely as a refrigerant.
.119	Yes	Yes	1910.119 applies on vessels and on shore for process safety management of highly hazardous chemicals; no applicable 1915 standard.
.120	Yes	Yes	1910.120 applies on vessels and on shore for hazardous waste operations; no applicable 1915 standard.
.122 to .126	Yes	Yes	1910.122-.126 applies on vessels and on shore for hazards associated with dip tanks; these standards are not preempted by 1915.32 & .33. NOTE: For 1910.122-.126 confined space entry requirements, Part 1915 Subpart B applies both on vessels and on shore.

Subpart I: Personal Protective Equipment

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.132	No	No	1915.151(a) and 1915.152 apply on vessels and on shore, preempting this PPE general requirements standard in its entirety.
.133	No	No	1915.151(a) and 1915.153 apply on vessels and on shore, preempting this eye and face protection standard in its entirety.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.134	Yes	Yes	1910.134 applies on vessels and on shore for respiratory protection; 1910.134 is incorporated into Part 1915 by 1915.154.
.135	No	No	1915.151(a) and 1915.155 apply on vessels and on shore, preempting this head protection standard in its entirety.
.136	No	No	1915.151(a) and 1915.156 apply on vessels and on shore, preempting this foot protection standard in its entirety.
.137(a)	Yes	Yes	1910.137(a) applies on vessels and on shore for electrical protective equipment design requirements; no applicable 1915 standard.
.137(b)	Yes	Yes	1910.137(b) applies on vessels and on shore. This standard provides requirements to maintain electrical PPE in a safe, reliable condition, and is not preempted by 1915.157(c) since this standard only requires employees to wear electrical PPE if exposed to electrical hazards, and does not address the condition/maintenance of such equipment.
.138	No	No	1915.151(a) and 1915.157(a) apply on vessels and on shore, preempting this hand protection standard in its entirety.
.139	Yes	Yes	1910.139 applies on vessels and on shore for respiratory protection for tuberculosis; no applicable 1915 standard.

Subpart J: General Environmental Conditions

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.141	Yes*	Yes*	1910.141 applies on vessels and on shore for sanitation. Generally preempted are: 1910.141(a)(3)(i) on vessels and on shore by 1915.91(a)
.142	No	Yes	1910.142 could apply on shore, however, temporary labor camps are not known to occur as part of shipyard employment.
.144	Yes	Yes	1910.144 applies on vessels and on shore for safety color code for marking physical hazards; no applicable 1915 standard.
.145	Yes	Yes	1910.145 applies on vessels and on shore for accident prevention signs and tags. 1915.16 applies on vessels and on shore for warning signs and labels posted to comply with Part 1915, Subpart B requirements. NOTE: These 1910.145 specifications for accident prevention signs and tags are not intended to cover safety signs for marine regulations such as US Coast Guard required placards (e.g., oil pollution, garbage, and life jackets).
.146	No	No	1910.146(a) prohibits the use of this permit-required confined space standard in shipyard employment. Part 1915 Subpart B applies on vessels and on shore.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.147	No	No	1910.147(a) prohibits the use of this control of hazardous energy standard (lockout/tagout) in maritime employment. Lockout/tagout requirements for vessels include 1915.162 (Ship's boilers), 1915.163 (Ship's piping systems), 1915.164 (Ship's propulsion machinery), 1915.165 (Ship's deck machinery), and 1915.181 (Electrical circuits and distribution boards).

Subpart K: Medical and First Aid

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.151(a)	Yes	Yes	1910.151(a) applies on vessels and on shore for the availability of medical personnel for advice and consultation.
.151(b)	No	No	1915.98 applies on vessels and on shore for first aid, preempting this standard in its entirety.
.151(c)	Yes	Yes	1910.151(c) applies on vessels and on shore for medical services and first aid; no applicable 1915 standard.

Subpart L: Fire Protection

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.155-.165	No	No	1915.52, Fire Prevention, applies on vessels and on shore; 1910.155(b) prohibits the application of Part 1910 Subpart L – Fire Protection to maritime employment. NOTE: There is a proposed rule for 29 CFR Part 1915, Fire Protection in Shipyard Employment [Federal Register; Wednesday, December 11, 2002] that would change shipyard requirements for emergency plans and fire prevention plans.

Subpart M: Compressed Gas and Compressed Air

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.169(a)	Yes*	Yes*	1910.169(a) applies on vessels and on shore for fixed air receivers; 1910.169(a) applies on vessels or on shore for the installation and maintenance of pressure relief valves on portable air receivers, the remainder of 1910.169(a) is preempted by 1915.172(a) & (b).
.169(b)	Yes	Yes	1910.169(b) applies on vessels and on shore for air receivers.

Subpart N: Materials Handling and Storage

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.176(a)	Yes*	Yes*	1910.176(a){1st & 3rd sentences} applies on vessels and on shore for the use of mechanical equipment; 1910.176(a){2nd sentence} is preempted by 1915.91 on vessels and on shore.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.176(b)	Yes	Yes	1910.176(b) applies on vessels and on shore for material handling secure storage; no applicable 1915 standard.
.176(c)	No	No	1915.91 applies on vessels and on shore for material handling storage area housekeeping except for pest control; 1910.141 may be applied for sanitation including pest control.
.176(e)	Yes	Yes	1910.176(e) applies on vessels and on shore for material handling clearance limit signs; no applicable 1915 standard.
.176(f)	No	Yes	1910.176(f) applies on shore for material handling rolling railroad cars; no applicable 1915 standard.
.176(g)	No	No	1915.73(d) applies on vessels and on shore for material handling guarding, preempting this standard in its entirety.
.177	No	No	1910.177(a) prohibits the use of the servicing multi-piece and single piece rim wheels standard in shipyard employment; no applicable 1915 standard.
.178	Yes*	Yes*	1910.178 applies on vessels and on shore for powered industrial trucks; 1915.120 incorporates 1910.178(l). NOTE: 1915.136(b) states, "All exhaust line joints and connections shall be checked for tightness immediately upon starting the engine, and any leaks shall be corrected at once."; 1915.136(b) applies to exhaust leaks but does not otherwise preempt 1910.178(p)(1) and (q).
.179	Yes*	Yes	1910.179 applies on vessels and on shore; the certification requirements of 1915.115 may also be applicable. (See CPL 2-1.39) NOTE: On vessels, 1910.179 cannot be applied to design specifications for overhead and gantry cranes that are a permanent part of the vessel. Any hazardous conditions that employees are exposed to related to design will be cited using the standard under which the vessel crane(s) was designed (verify by vessel drawings, documentation, publications, etc.) using the General Duty Clause.
.180	Yes	Yes	1910.180 applies on vessels and on shore for mobile cranes. NOTE: For mobile cranes (e.g., crawler cranes, truck cranes) placed on vessels and used for shipyard employment, the certification requirements of 1915.115 may also be applicable. (See CPL 2-1.39)
.181	Yes*	Yes	1910.181 applies on vessels and on shore for derricks. NOTE: For derricks on vessels the certification requirements of 1915.115 may also be applicable. (See CPL 2-1.39) NOTE: On vessels, 1910.181 cannot be applied to design specifications for derricks that are a permanent part of the vessel. Any hazardous conditions that employees are exposed to related to design will be cited using the standard under which the vessel derrick(s) was designed (verify by vessel drawings, documentation, publications, etc.) using the General Duty Clause.
.183	Yes	Yes	1910.183 could apply on vessels and on shore if helicopter operations occur in shipyards.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.184	Yes*	Yes*	1915.111, 1915.112, 1915.115 and 1915.116 apply on vessels and on shore for slings; 1910.184 applies to working conditions on vessels and on shore not addresses by Part 1915 as follows: 1910.184(a), (b), (c)(2){for all slings except chain slings}, (c)(3){for all slings except chain slings}, (c)(5), (c)(6), (c)(8), (c)(10)-(12), (e)(1), (e)(2)(i), (e)(3)(i)&(ii), (e)(6), (e)(9)(ii), (f)(2)-(5), (g), (h)(1){for synthetic fibers only}, (h)(2)-(6) and (i). Generally preempted are: 1910.184(c)(1) by 1915.111(a) 1910.184(c)(2) by 1915.112(c)(7) for chain slings 1910.184(c)(3) by 1915.112(c)(7) for chain slings 1910.184(c)(4) by 1915.111(b) 1910.184(c)(7) by 1915.116(f) 1910.184(c)(9) by 1915.116(j) 1910.184(d) by 1915.111(a) 1910.184(e)(2)(ii) by 1915.112(c)(7) 1910.184(e)(3)(iii) by 1915.112(c)(2) & (4) 1910.184(e)(4) by 1915.112(c)(5) 1910.184(e)(5) by 1915.112(c)(1) 1910.184(e)(7) by 1915.112(c)(4) & (5) 1910.184(e)(8) by 1915.112(c)(3) 1910.184(e)(9)(i) by 1915.112(c)(4) 1910.184(f)(1) by 1915(b)(1) 1910.184(h)(1)(i) by 1915.112(a)(1){for natural fibers only}

Subpart O: Machinery and Machine Guarding

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.212	Yes*	Yes	1910.212 applies on vessels and on shore for general requirements for machines; 1915.131(d) and (f) however, apply to the guarding of machinery on drydocks.
.213	Yes*	Yes	1910.213 applies on vessels and on shore for woodworking machinery; 1915.131(d), however, applies if the machinery is moved onto a drydock.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.215	Yes*	Yes*	1915.134 applies on vessels and on shore for abrasive wheel machinery; 1910.215 applies to hazards on vessels and on shore not addressed by 1915.134 as follows: 1910.215(b)(2), (b)(4)-(11), (c)(1)-(9), & (d)(3)-(6). Generally preempted are: 1910.215(a)(1) by 1915.134(a) & (c) 1910.215(a)(2) by 1915.134(e) & (f) 1910.215(a)(3) by 1915.134(c)(1) and (f) 1910.215(a)(4) by 1915.134(b) 1910.215(b)(1) by 1914.134(c) 1910.215(b)(3) by 1915.134(a) 1910.215(b)(12) by 1915.134(c) 1910.215(d)(1) by 1915.134(g) & (i) 1910.215(d)(2) by 1915.134(h)
.216	No	No	1910.216 is limited in application to the rubber and plastics industries.
.217	Yes	Yes	1910.217 applies on vessels and on shore for mechanical power presses.
.218	No	Yes	1910.218 applies on shore for forging machines; 1910.218(a) limits application of the standard to forge and die shops, which are generally not located on vessels.
.219	Yes	Yes	1910.219 applies on vessels and on shore for mechanical power-transmission apparatus.

Subpart P: Hand and Portable Powered Tools and Other Hand-held Equipment

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.242(a)	No	No	1915.133(a) applies on vessels and on shore for general requirements for hand and portable powered tools and equipment, preempting this standard in its entirety.
.242(b)	Yes	Yes	1910.242(b) applies on vessels and on shore to compressed air used for cleaning; no applicable 1915 standard.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.243(a)-(d)	Yes*	Yes*	1915.34(a)(2), 1915.131, 1915.132, 1915.134 and 1915.135 apply on vessels and on shore for portable powered tool guarding requirements; 1910.243 applies to working conditions on vessels and on shore not addressed by Part 1915 as follows: 1910.243(a)(2)(i)-(iii)(a){for portable non-electric tools}, (a)(2)(iii)(b)-(2)(v), (a)(3), (a)(4), (b), (c)(1), (c)(1)(i)(a), (c)(1)(i)(c), (c)(1)(ii)(a)-(c), (c)(3)&(4), (c)(5)(iii)-(v), (c)(6), (d)(1)(i), and (d)(2)&(3). Generally preempted are: 1910.243(a)(1)(i) by 1915.131(c) 1910.243(a)(2)(i)-(iii)(a) by 1915.132(c) for portable electric tools 1910.243(a)(5) by 1915.132(a)&(b) 1910.243(c)(1)(i)(b) by 1915.134(c)(2) 1910.243(c)(2) by 1915.134(c) 1910.243(c)(5)(i) by 1915.134(g)&(i) 1910.243(c)(5)(ii) by 1915.134(h) 1910.243(d)(1)(ii) by 1915.135(b)(9) 1910.243(d)(4)(i) by 1915.135(c)(1) 1910.243(d)(4)(ii) by 1915.134(c)(2) 1910.243(d)(4)(iii) by 1915.135(c)(3) & (c)(4) 1910.243(d)(4)(iv) by 1915.135(c)(3) 1910.243(d)(4)(v) by 1915.135(c)(5) 1910.243(d)(4)(vi) by 1915.135(c)(6) 1910.243(d)(4)(vii) by 1915.135(b)(4) 1910.243(d)(4)(viii) by 1915.135(b)(5) 1910.243(d)(4)(ix) by 1915.135(b)(6) 1910.243(d)(4)(x) by 1915.135(b)(7) 1910.243(d)(4)(xi) by 1915.135(b)(8) 1910.243(d)(4)(xii) by 1915.135(b)(2) 1910.243(d)(4)(xiii) by 1915.134(b)(3) 1910.243(d)(4)(xiv) by 1915.135(b)(1)
.243(e)	No	Yes	1910.243(e) applies on shore to lawn mowers.
.244(a)	Yes	Yes	1910.244(a) applies on vessels and on shore to jacks; no applicable 1915 standard.
.244(b)	No	No	1915.34(c) preempts this abrasive blast cleaning nozzle standard in its entirety.

Subpart Q: Welding, Cutting and Brazing

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.252	Yes*	Yes*	1915.51 and 1915.52 apply on vessels and on shore for welding, cutting & brazing general requirements. The following 1910.252 standards also apply since there are no applicable 1915 standards addressing the specific hazards: 1910.252(a)(1), (a)(1)(iii), (a)(2)(i), (a)(2)(iii), (a)(2)(iv), (a)(2)(v)-(vi)(B), (a)(2)(vi)(D), (a)(2)(ix), (a)(2)(xi)-(xv), (a)(3), (a)(4)(i), (b)(1), (b)(2)(ii), (b)(2)(iii){1st & 2nd sentences}, (c)(1)(i)-(ii), (c)(1)(iv), (c)(2)(ii), (c)(3)(i){2nd sentence}, (c)(3)(ii), (c)(4)(iii), (c)(4)(iv), (c)(5), (c)(6)-(10){on shore only} and (c)(11)-(13). Generally preempted are: 1910.252(a)(1)(i) by 1915.52(a)(1) 1910.252(a)(1)(ii) by 1915.52(a)(2) 1910.252(a)(2)(ii) by 1915.52(b)(2) 1910.252(a)(2)(vi)(C) by 1915.52(b)(1) 1910.252(a)(2)(vii) by 1915.52(a)(2) 1910.252(a)(2)(viii) by 1915.52(a)(3) 1910.252(a)(2)(x) by 1915.52(a)(3) 1910.252(a)(4)(ii) by 1915.52(a)(4) 1910.252(b)(2)(i) by 1915.51(f)(2) 1910.252(b)(2)(iii){last sentence} by 1915.56(e) & .51(a)&(c) 1910.252(b)(3) by 1915.51(e)(1)(iii) 1910.252(b)(4) by 1915.51(c) 1910.252(c)(1)(iii) by 1915.51(b)(1)(ii)&(iii) 1910.252(c)(2)(i)(A)-(C) by 1915.51(f)(1) 1910.252(c)(3)(i){first sentence} by 1915.51(b)(1)(ii) 1910.252(c)(4)(i) by 1915.51(b)(1)(v) & (c)(1) 1910.252(c)(4)(ii) by 1915.51(c)(3) 1910.252(c)(4)(v) by 1915.51(b)(1)(vi) 1910.252(c)(6)(i) by 1915.51(d)(1) {on vessels only} 1910.252(c)(6)(ii) by 1915.51(d)(1) {on vessels only} 1910.252(c)(7)(i) by 1915.51(d)(1) {on vessels only} 1910.252(c)(7)(ii) by 1915.51(d)(1) {on vessels only} 1910.252(c)(7)(iii) by 1915.51(d)(2) {on vessels only} 1910.252(c)(8) by 1915.51(d)(2), (d)(3) & (d)(4) {on vessels only} 1910.252(c)(9) by 1915.51(d)(1) {on vessels only} 1910.252(c)(10) by 1915.51(d)(2) {on vessels only}

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.253	Yes*	Yes*	1915.55 applies on vessels and on shore for gas welding and cutting. The following 1910.253 standards also apply since there are no applicable 1915 standards addressing the specific hazards: 1910.253(a)(1)-(4), (b)(1)(i)-(iv), (b)(2)(ii), (b)(3), (b)(4), (b)(5)(i), (b)(5)(ii)(L), (b)(5)(ii)(N), (b)(5)(ii)(Q)-(R)(2), (b)(5)(iii)(G)&(H), (c), (d), (e)(1)-(4)(vi), (e)(4)(viii), (e)(5)(i), (e)(5)(iii)-(6)(iv), (f) and (g). Generally preempted are: 1910.253(b)(2)(i) by 1915.55(b)(3) 1910.253(b)(2)(iii) by 1915.55(a)(8) 1910.253(b)(2)(iv) by 1915.55(a)(1) 1910.253(b)(5)(ii)(A) by 1915.55(a)(1)&(2) 1910.253(b)(5)(ii)(B) by 1915.55(a)(3) 1910.253(b)(5)(ii)(C) by 1915.55(a)(5) 1910.253(b)(5)(ii)(D) by 1915.55(a)(6) 1910.253(b)(5)(ii)(E) by 1915.55(d)(2) 1910.253(b)(5)(ii)(F)-(H) by 1915.55(a)(8) 1910.253(b)(5)(ii)(I) by 1915.55(b)(1) 1910.253(b)(5)(ii)(J) by 1915.55(b)(2) 1910.253(b)(5)(ii)(K) by 1915.55(c)(1) 1910.253(b)(5)(ii)(M) by 1915.55(c)(2) 1910.253(b)(5)(ii)(O) by 1915.55(a)(3) 1910.253(b)(5)(ii)(P) by 1915.55(d)(1) 1910.253(b)(5)(iii)(A) by 1915.55(b)(3) 1910.253(b)(5)(iii)(B) by 1915.55(a)(3) 1910.253(b)(5)(iii)(C) by 1915.55(d)(1) 1910.253(b)(5)(iii)(D) by 1915.55(d)(4) 1910.253(b)(5)(iii)(E) by 1915.55(d)(2) 1910.253(b)(5)(iii)(F) by 1915.55(d)(5) 1910.253(b)(5)(iii)(I) by 1915.55(d)(3) 1910.253(b)(5)(iii)(J)-(L) by 1915.55(d)(2) 1910.253(e)(4)(iii) by 1915.55(e)(4) 1910.253(e)(5)(ii) by 1915.55(f)(2)

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.254	Yes*	Yes*	1915.56 applies on vessels and on shore for arc welding and cutting. The following 1910.254 standards also apply since there are no applicable 1915 standards addressing the specific hazards: 1910.254(a)(1)&(2), (b), (c)(1), (c)(3)(i), (c)(3)(iv), (d)(1)&(2), (d)(4)-(6), (d)(8){2nd sentence only}, and (d)(9)(ii). Generally preempted are: 1910.254(a)(3) by 1915.56(d) 1910.254(c)(2) by 1915.56(c) 1910.254(c)(3)(ii)&(iii) by 1915.56(c)(1) 1910.254(d)(3) by 1915.56(c)(6) 1910.254(d)(7) by 1915.56(d)(1) 1910.254(d)(8){1st sentence only} by 1915.56(b)(2) 1910.254(d)(9)(i) by 1915.56(d)(4) 1910.254(d)(9)(iii) by 1915.56(b)(3)
.255	Yes	Yes	1910.255 applies on vessels and on shore for resistance welding; no applicable 1915 standard.

Subpart R: Special Industries

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.261	No	No	1910.261(a)(1) limits the applicability of this standard to pulp, paper and paperboard mills.
.262	No	No	1910.262(a)(1) limits the applicability of this standard to textile machinery.
.263	No	Yes	1910.263(a)(1) limits the applicability of this standard to equipment in bakeries. The standard is applicable to a bakery located within a shipyard cafeteria.
.264	No	Yes	1910.264(b) limits the applicability of this standard to laundry facilities. The standard is applicable to laundry facilities located within a shipyard.
.265	No	Yes	1910.265(a) limits the applicability of this standard to saw mills. The standard is applicable to saw mill facilities located within a shipyard (usually found at wooden vessel yards).
.266	No	No	1910.266(b)(1) & (2) limits the applicability of this standard to logging operations.
.268	No	No	1910.268(a) limits the applicability of this standard to telecommunications centers and the installation of telecommunications equipment.
.269	Yes	Yes	1910.269(a) limits the applicability of this standard to power generation and distribution.
.272	No	No	1910.272(a) & (b) limits the applicability of this standard to grain handling facilities.

Subpart S: Electrical "Feasibility" on Vessels

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.301 to .308	Yes*	Yes	1910.301-.308 apply on shore. On vessels, Part 1910 Subpart S is applicable when shore-based electrical installations provide power for use aboard vessels (i.e., the power for the electrical system comes from shore or from portable electrical generators that are either ashore or placed on a vessel); commonly accepted industry practice may deviate from standard requirements without exposing employees to hazards; for example, it is established industry practice to use methods such as overhead "trees" to route electrical cables, pneumatic hoses, etc., in a manner that poses no hazards to employees, yet does not fully comply with Part 1910 Subpart S requirements. Thorough evaluation and analysis must be conducted regarding the application and feasibility of the Part 1910 Subpart S standard to vessels. OSHA Regional offices and the OSHA National Office can provide assistance in making such determinations. NOTE: Part 1910 Subpart S cannot be applied to a vessel's permanently installed electrical system. Design specifications for vessels (including electrical systems) are addressed on U.S. "Inspected" vessels by Coast Guard regulations (46 CFR Parts 110 to 113), on foreign flag vessels by foreign standards and various International Vessel Classification Society rules (e.g., Bureau Veritas – France, Det Norske Veritas – Norway, Nippon Kaiji Kaokai – Japan, Lloyd's Register of Shipping – England), and on "Un-inspected" vessels by a variety of standards, recommended guidelines, and established industry practices. Any hazardous conditions that employees are exposed to related to ***design*** must be cited using the standards/rules (such as: Coast Guard, American Bureau of Shipping, Bureau Veritas, Nippon Kaiji Kaokai, American Yacht & Boat Council) under which the vessel's permanently installed electrical system was designed (verify by vessel drawings, documentation, publications, etc.) and applying the General Duty Clause.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.331 to .335	Yes*	Yes	1910.331-.335 apply on shore for both qualified persons (those who have training in avoiding the electrical hazards of working on or near exposed energized parts) and unqualified persons (those with little or no such training). On vessels, these provisions cover all electrical safety-related work practices for unqualified persons, including, temporary electrical systems and the vessel's permanently installed electrical systems. On vessels these provisions apply to electrical safety-related work practices for qualified persons when shore-based electrical installations provide power for use aboard vessels; these provisions do not apply to qualified persons working on the vessel's permanently installed electrical system. Additional requirements for qualified and unqualified persons are found in 1915.132, *Portable electric tools,* 1915.152, *(PPE) General requirements,* 1915.155(a)(2), *Head protection,* 1915.157(c), *Hand and body protection,* 1915.181, *Electrical circuits and distribution boards.*

Subpart T: Commercial Diving Operations

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.401 to .441	Yes	Yes	1910 Subpart T, Commercial Diving Operations, is incorporated into 1915 by 1915.6. NOTE: Diving conducted from inspected vessels (i.e., vessel with a Coast Guard "Certificate of Inspection") including mobile offshore drilling units, within a deepwater port or its safety zone, or from any artificial island or installation or other device on the Outer Continental Shelf is covered by the Coast Guard [46 CFR Chapter 1, Subchapter V, Part 197, Subpart B – Commercial Diving Operations].

Subpart Z: Toxic and Hazardous Substances

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.1000	No	No	1915.1000 applies on vessels and on shore for air contaminants, preempting this standard in its entirety.
.1001	No	No	1915.1001 applies on vessels and on shore for asbestos, preempting this standard in its entirety.
.1002	Yes	Yes	1910.1002 applies on vessels and on shore for coal tar pitch volatiles; is incorporated into 1915 by 1915.1002.
.1003	Yes	Yes	1910.1003 applies on vessels and on shore for 13 carcinogens; is incorporated into 1915 by 1915.1003.
.1004	Yes	Yes	1910.1004 applies on vessels and on shore for alpha-Naphthylamine; is incorporated into 1915 by 1915.1004.
.1006	Yes	Yes	1910.1006 applies on vessels and on shore for Methyl chloromethyl ether; is incorporated into 1915 by 1915.1006.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.1007	Yes	Yes	1910.1007 applies on vessels and on shore for 3,3'-dichlorobenzindine; is incorporated into 1915 by 1915.1007.
.1008	Yes	Yes	1910.1008 applies on vessels and on shore for bis-Chloromethyl ether; is incorporated into 1915 by 1915.1008.
.1009	Yes	Yes	1910.1009 applies on vessels and on shore for beta-Naphthylamine; is incorporated into 1915 by 1915.1009.
.1010	Yes	Yes	1910.1010 applies on vessels and on shore for benzidine; is incorporated into 1915 by 1915.1010.
.1011	Yes	Yes	1910.1011 applies on vessels and on shore for 4-Aminodiphenyl; is incorporated into 1915 by 1915.1011.
.1012	Yes	Yes	1910.1012 applies on vessels and on shore for etyleneimine; is incorporated into 1915 by 1915.1012.
.1013	Yes	Yes	1910.1013 applies on vessels and on shore for beta-Propiolactone; is incorporated into 1915 by 1915.1013.
.1014	Yes	Yes	1910.1014 applies on vessels and on shore for 2-Acetylaminofluorene; is incorporated into 1915 by 1915.1014.
.1015	Yes	Yes	1910.1015 applies on vessels and on shore for 4-Dimethylaminoazobenzene; is incorporated into 1915 by 1915.1015.
.1016	Yes	Yes	1910.1016 applies on vessels and on shore for N-Nitrosodimethylamine; is incorporated into 1915 by 1915.1016.
.1017	Yes	Yes	1910.1017 applies on vessels and on shore for vinyl chloride; is incorporated into 1915 by 1915.1017.
.1018	Yes	Yes	1910.1018 applies on vessels and on shore for inorganic arsenic; is incorporated into 1915 by 1915.1018.
.1020	Yes	Yes	1910.1020 applies on vessels and on shore for access to employee exposure and medical records; is incorporated into 1915 by 1915.1020.
.1025	Yes	Yes	1910.1025 applies on vessels and on shore for lead; is incorporated into 1915 by 1915.1025.
.1027	Yes	Yes	1910.1027 applies on vessels and on shore for cadmium; is incorporated into 1915 by 1915.1027.
.1028	Yes	Yes	1910.1028 applies on vessels and on shore for benzene; is incorporated into 1915 by 1915.1028.
.1029	Yes	Yes	1910.1029 applies on vessels and on shore for coke oven emissions.
.1030	Yes	Yes	1910.1030 applies on vessels and on shore for bloodborne pathogens; is incorporated into 1915 by 1915.1030.
.1043	No	No	1910.1043(a) limits the applicability of this standard to employee exposure to cotton dust in manufacturing.
.1044	Yes	Yes	1910.1044 applies on vessels and on shore for 1, 2-dibromo-3-chloropropane; is incorporated into 1915 by 1915.1044.
.1045	Yes	Yes	1910.1045 applies on vessels and on shore for acrylonitrile; is incorporated into 1915 by 1915.1045.

Part 1910 Standard	Applicability: Vessel	Shore	Remarks/Comments
.1047	Yes	Yes	1910.1047 applies on vessels and on shore for ethylene oxide; is incorporated into 1915 by 1915.1047.
.1048	Yes	Yes	1910.1048 applies on vessels and on shore for formaldehyde; is incorporated into 1915 by 1915.1048.
.1050	Yes	Yes	1910.1050 applies on vessels and on shore for Methylenedianiline; is incorporated into 1915 by 1915.1050.
.1051	Yes	Yes	1910.1051 applies on vessels and on shore for 1, 3-Butadiene.
.1052	Yes	Yes	1910.1052 applies on vessels and on shore for methylene chloride; is incorporated into 1915 by 1915.1052.
.1096	Yes*	Yes	1910.1096 applies on vessels and on shore for ionizing radiation, except for work in the vicinity of vessel radars for which 1915.95 preempts this standard.
.1200	Yes	Yes	1910.1200 applies on vessels and on shore for hazard communication; is incorporated into 1915 by 1915.1200.
.1450	Yes	Yes	1910.1450 applies on vessels and on shore for occupational exposure to hazardous chemicals in laboratories; is incorporated into 1915 by 1915.1450.

Appendix B: Shipyard Tool Bag Directive Questions and Answers

Answers to Common Questions Regarding the Application of OSHA Standards to Shipyard Employment

This Appendix consolidates OSHA interpretations related to shipyard employment that have been issued and remain valid as of the date of this instruction. We reviewed previously issued interpretations to determine their current validity and accuracy. Interpretations for which standard references have changed were updated to reflect the current standard reference.

OSHA requirements are set by statute, standards, and regulations. Our interpretations explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. These responses constitute OSHA's interpretations of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at http://www.osha.gov.

Question 1: As a result of the April 6, 1994 revisions to the general industry Personal Protective Equipment (PPE) standards, are 1910.132 through .138 applicable to shipyards?

Answer: The general industry standards for PPE, 1910.132 through .138 cannot be applied in shipyard employment, with the exception of 1910.134, *Respiratory protection*. The applicable PPE requirements for shipyard employment are:

- 1915.152, *General requirements*.
- 1915.153, *Eye and face protection*.
- 1915.154, *Respiratory protection* (Covered by 1910.134).
- 1915.155, *Head protection*.
- 1915.156, *Foot protection*.
- 1915.157, *Hand and body protection*.

Question 2: A tugboat employer is required to follow 29 CFR 1915 Subpart B, *Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment*, when performing ship repair functions. Does this same employer need to implement 29 CFR 1910.146, *Permit-Required Confined Space*, when employees enter confined spaces on the same vessel for non-repair reasons (such as for retrieving ropes)?

Answer: A tugboat (uninspected vessel) employer is required to follow and comply with the 29 CFR Part 1915 Subpart B confined space standard when performing ship repair functions (such as alterating, converting, installing, cleaning, painting, and maintaining). This same tugboat

employer is required to follow and comply with the 29 CFR 1910.146 confined space standard when employees are performing various routine tasks (such as retrieving ropes from confined spaces). Moreover, situations regularly occur on tugboats which require compliance with both standards at the same time. Requiring a single site employer to implement two confined space entry procedures simultaneously can lead to confusion, inadvertent errors, and possibly reduced employee safety. Therefore, a tugboat employer may be allowed to follow and comply with the 29 CFR Part 1915 requirements for all confined space work aboard the tugboat, provided that there is full compliance with the Part 1915 requirements. Any violation of an arguably applicable 1910.146 requirement would be treated as a *de minimis* violation and not cited.

Question 3: Section 1910.147(a)(1)(ii)(A), *Control of Hazardous Energy Sources: Scope, application and purpose* states, "This standard does not cover the following: Construction, agriculture, and maritime employment." Can the lockout/tagout standard apply to the maintenance of fish-processing equipment in the factory portions of floating fish processors?

Answer: In this situation, the relevant set of standards is 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment. This part includes ship repair and related employment among other things. According to the definition for ship repair, 29 CFR 1915.4(j), "The terms *ship repair* and *ship repairing* mean any repair of a vessel including, but not restricted to, alterations, conversions, installations, cleaning, painting, and maintenance work." This definition covers maintenance of any equipment on a vessel, including fish-processing equipment. 29 CFR 1915 has standards on the de-energization, securing, blanking and tagging of equipment as follows:

- 1915.162, *Ship's boilers*.
- 1915.163, *Ship's piping systems*.
- 1915.164, *Ship's propulsion machinery*.
- 1915.165, *Ship's deck machinery*.
- 1915.181, *Electrical circuits and distribution boards*.

If these standards do not apply to the conditions causing the hazards to employees, the General Duty Clause will be cited where the evidence supports such violation.

Question 4: Would OSHA cite an employer who chooses to follow the procedures contained in 29 CFR 1910.146, *Permit-Required Confined Space* when facility employees enter wing, bow, and/or stern tanks?

Answer: OSHA would not issue citations to an employer that considers wing, bow, and/or stern tanks to be permit required confined spaces, provided that the entry is in compliance with 1910.146 and does not involve hot work.

Question 5: Section 1915.2(b), *Scope and Application* states, "This part does not apply to matters under the control of the United States Coast Guard, ...including, but not restricted to, the master, ship's officers, crew members, design, construction and maintenance of the vessel, its gear and equipment." Does

the scope and application of 1915.2(b) limit OSHA's authority in shipyard employment?

Answer: OSHA's jurisdiction is limited only by Section 4(b)(1) of the Occupational Safety and Health Act which states, "Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies..., exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health." The provisions in Part 1915 are there because of the coverage provisions of the Longshoring and Harbor Workers' Compensation Act (LHWCA), which, along with the OSH Act, provides OSHA with rulemaking authority over shipyards. However, since OSH Act coverage, which extends to anyone engaged in a business affecting interstate commerce, is much broader than LHWCA coverage, OSHA is not bound by these limitations in the shipyard standard. In fact, it has been OSHA policy that the LHWCA limitations on coverage that appear in the maritime standards were not adopted when the maritime standards were promulgated under Section 6(a).

Question 6: Is the application of OSHA's shipyard standards limited by the definition of employer and employee?

Answer: These provisions are in Part 1915 only because of the coverage provisions of the Longshoring and Harbor Workers' Compensation Act (LHWCA), which, along with the OSH Act, provides OSHA with rulemaking authority over shipyards. However, since OSH Act coverage, which extends to anyone engaged in a business affecting interstate commerce, is much broader than LHWCA coverage, OSHA is not bound by these limitations in the shipyard standard. It has been OSHA policy from the beginning that the LHWCA limitations on coverage that appear in the maritime standards were not adopted when the maritime standards were promulgated under Section 6(a). This brings these definitions in line with 1915.11(a), *Scope and application*, and 1915.11(b), *Definitions*.

Question 7: What are the 29 CFR Part 1915 shipyard employment requirements for a shipyard competent person to perform confined space entry and monitoring?

Answer: Confined space entry requirements are addressed by OSHA Instruction STD 2-4.1, "*29 CFR 1915 Subpart B, Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment – Inspection Procedures and Interpretive Guidance*." In addition to providing current policy, inspection procedures, information, and guidance to ensure uniform enforcement, this instruction includes six flow charts that delineate 1915 Subpart B procedures for: Documentation and Training, Precautions Before Entering, Combustible/Flammable Checks, Cold Work Checks, Hot Work Checks, and Maintenance of Safe Conditions.

The OSHA current confined space standard for shipyard employment became effective on October 24, 1994. This revised standard extended the scope and applicability [1915.11], to cover all shipyard employment both on vessels and land-side operations regardless of geographic location. The only exception to the applicability of Subpart B within a shipyard is that construction activities covered by 29 CFR Part 1926 are not subject to the provisions of 29 CFR Part 1915, Subpart B.

The revised standard deleted the requirement for employers to specifically use and maintain the Form OSHA 73, "*Designation of Competent Person*." Employers now have the option of using the Form OSHA 73, maintaining a written roster of designated employees, or issuing a written statement that a Marine Chemist will always be used for the required inspections and tests [1915.7(b)(2)(I)]. When the roster is used, it must contain the following information as a minimum: employers' name, the designated competent person's name, and the date the employee was trained as a competent person [1915.7(b)(2)(iii)].

The revised standard also deleted the requirement for employers to specifically use and maintain the Form OSHA 74, "*Log of Inspections and Tests by Competent Person*." Employers must still maintain a record of inspections and tests, but they now have the option of choosing the form or format. Such records must be posted in the immediate vicinity of the affected operations while work is in progress and be maintained for a period of at least three months from the completion date of the specific job for which they were generated [1915.7(d)(2)].

The revised standard continued the previous requirement that the employer designate at least one competent person for the purpose of testing work space atmospheres in shipyard employment, unless all of the employer's testing under 1915 Subpart B is performed by a Marine Chemist [1915.7(b)(1)]. A Coast Guard authorized person cannot be substituted for the competent person required by 1915.7(b)(1), because it has been determined that the training required for a Coast Guard authorized person, although equal to or superior in many areas to training and knowledge required by a shipyard competent person, does not provide all the skills and knowledge required of a competent person.

The criteria of 1915.7(c) requires the shipyard competent person to have the skill and knowledge necessary to perform atmospheric testing. 1915.7(c)(1) requires that the competent person be able to understand and carry out the written or oral instructions left by a Marine Chemist, Coast Guard authorized person, or Certified Industrial Hygienist. 1915.7(c)(2) requires competent persons to have a knowledge of 1915 Subparts B, C, D, and H. 1915.7(c)(3) requires that competent persons have a familiarity with the structure, location, and designation of spaces where work is done. 1915.7(c)(4) continues to require competent persons to have the ability to use and interpret the readings of oxygen, combustible gas, and carbon dioxide indicators. Competent persons must also be able to calibrate all the testing equipment they use. 1915.7(c)(5) continues the requirement for a competent person to have the ability to perform all required tests and inspections as set forth in Part 1915 Subparts B, C, D and H. 1915.7(c)(6) requires competent persons to have the ability to evaluate spaces after a test to determine the need for further testing by a Marine Chemist, Certified Industrial Hygienist, or Coast Guard authorized person. 1915.7(c)(7) requires that a competent person have the capability to maintain the records required by the standard.

Question 8: Section 1915.11, *Scope, application, and definitions applicable to this subpart* states, "This subpart applies to work in confined and enclosed spaces and other dangerous atmospheres in shipyard employment, including vessels, vessel sections, and on land-side operations regardless of geographic location." Does 29 CFR 1915 Subpart B apply to grain facility employees who enter wing, bow, and/or stern tanks to perform repairs or other

maintenance work, even if those employees were originally engaged in loading the barge?

Answer: 29 CFR 1915 Subpart B applies to any employee who enters enclosed or confined spaces aboard a vessel to perform repairs or other maintenance work.

A grain facility employer must follow and comply with the 29 CFR Part 1915 Subpart B confined space standard when performing ship repair functions (such as altering, converting, installing, cleaning, painting, and maintenance work). This same grain facility employer must follow and comply with the 29 CFR 1910.146 confined space standard when employees are performing various routine tasks (such as retrieving ropes from confined spaces). Moreover, situations regularly occur on vessels which require compliance with both standards at the same time. Requiring a single site employer to implement two confined space entry procedures simultaneously can lead to confusion, inadvertent errors and possibly reduced employee safety. Therefore, a grain facility employer may be allowed to follow and comply with the 29 CFR Part 1915 requirements for all confined space work aboard a vessel, provided that there is full compliance with the Part 1915 requirements. Any violation of an arguably applicable 1910.146 requirement would be treated as a *de minimis* violation and not cited.

Question 9: Which standard, 1915.12(b)(1) or 1910.1028(e), is applicable if benzene monitoring on a ship is not conducted by a qualified person?

Answer: When benzene monitoring is conducted on a ship, both 29 CFR 1915.12(b) and 29 CFR 1910.1028(e) apply. Any person conducting shipboard monitoring must be a shipyard competent person per 29 CFR 1915.7. Test and inspection requirements are delineated under 29 CFR 1915.12(b) for inspector qualifications, situations requiring testing of spaces, and recording of results. Exposure monitoring requirements for benzene are addressed under 29 CFR 1910.1028(e) and are applicable per 29 CFR 1910.1028(a) for all occupational exposures to benzene except as noted under 29 CFR 1910.1028(a)(2). Specific attention is called to 29 CFR 1910.1028(a)(3) which excludes the cleaning and repair of barges and tankers which have contained benzene from 1910.1028(f), 1910.1028(e)(1), and 1910.1028(e)(6), and requires establishing engineering and work practice controls which keep exposures below 10 parts per million (ppm).

Question 10: Section 1915.14(a)(1)(iv), *Hot work requiring testing by a Marine Chemist or Coast Guard authorized person*, states, "The employer shall ensure that hot work is not performed in or on any of the following confined and enclosed spaces and other dangerous atmospheres, boundaries or spaces or pipelines until the work area has been tested and certified by a Marine Chemist or a U.S. Coast Guard Authorized Person as 'safe for hot work'." Is there ever a circumstance where the shipyard competent person can certify a space as "safe for hot work"?

Answer: The exemption in 1915.14(a)(1)(iv) means that a Marine Chemist certificate is not required to perform hot work within spaces adjacent to spaces in which the flammable gases or liquids have a flash point above 150 degrees Fahrenheit, and the distance between such spaces and the work is greater than 25 feet. The competent person can also certify dry cargo holds,

bilges, engine rooms, boiler spaces, other vessel sections, and land side operations as "safe for hot work" as long as the space, and the immediately adjacent spaces, have not contained combustible or flammable liquids or gases.

Question 11: Section 1915.15(a), *Maintenance of safe conditions* states, "Pipelines that carry hazardous materials into spaces that have been certified 'Safe for Workers' or 'Safe for Hot Work' shall be disconnected, blanked off, or otherwise blocked by a positive method to prevent hazardous materials from being discharged into the space." Can CO_2 fixed fire extinguishing systems on vessels and in spaces where employees are working, be left activated while the vessel is in the shipyard for repair?

Answer: Carbon dioxide is considered a hazardous substance as defined in 1915.4(n); pipelines which convey the gas must be disconnected, blanked off, or otherwise secured to prevent accidental discharge while repairs are undertaken in spaces where the CO2 fixed fire extinguishing system is designed to discharge.

Question 12: What are the appropriate OSHA standards related to painting activities in the shipyard environment?

Answer: For applications involving surface preparation and preservation of vessels (ships), whether the vessel is located in a large enclosed area or a dry-dock facility, the requirements of 29 CFR 1915 Subpart C - *Surface Preparation and Preservation* [i.e., 1915.31/.32/.33/.34/ .35/.36] are applicable. Additionally, 29 CFR 1915 Subpart B - *Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment* may also be applicable depending on the location of the work.

For applications involving the surface preparation and preservation of removable/portable vessel components, appendages, assemblies, equipment, etc., when using spray booths, the requirements of 29 CFR 1910.94 and .107 would be applicable.

Question 13: Section 1915.34(a)(2), *Mechanical paint removers*, states, "All portable rotating tools used for the removal of paints, preservatives, rusts or other coatings shall be adequately guarded to protect both the operator and nearby workers from flying missiles." Does this regulation apply to disc sanders?

Answer: A shipyard employer using portable disc sanders for paint, preservative, rust, or other coatings removal would have to guard the operation. This could be accomplished by guarding either the sander or the complete operation.

Question 14: Section 1915.55(f)(5), *Gas Cutting and Welding*, states, "Hose couplings shall be of the type that cannot by unlocked or disconnected by means of a straight pull without rotary motion." Do Hansen Quick Disconnect (QD) Coupling Sets provide protection that is at least equivalent to that provided by the use of coupling sets that comply with paragraph (f)(5) of 1915.55?

Answer: The Hansen QD couplings for oxyacetylene service consist of two coupling series. The 600-Series couplings are manufactured for oxygen service and the female end is color-coded green. The 700-Series couplings are manufactured for acetylene service and the female end is color-coded red. The 600- and 700-Series couplings are distinguishable from each other by feel (oxygen female sleeve is smooth, acetylene female sleeve is textured), and, through design, the male-to-female coupling ends are not interchangeable between coupling series.

The Hansen QD couplings are designed to be installed so that the coupling female end is on the gas supply side of the hose. The QD couplings are connected by rotating the female sleeve alignment mark to line up with the retaining ball, pulling back the spring loaded female sleeve, fully inserting the male end into the female end, releasing the female sleeve, and rotating the sleeve alignment mark ¼ to ½ turn from the retaining ball.

If the female sleeve is aligned to the releasing position during use, it is possible for the coupling to become inadvertently disconnected by means of a straight pull. Should this event occur, the only gas discharged from the hose would be from the hose coupling male end; there would be no danger of the hose whipping around because the female end is fitted with a spring loaded valve that immediately closes when the male coupling end is removed. Therefore, with the male coupling end removed, no gas can flow through the female coupling end from the gas supply.

The Hansen 600- and 700-Series QD couplings are in compliance with OSHA standards when properly installed for use. Proper installation includes having the female coupling end on the gas supply side and the female sleeve rotated so that the coupling cannot be disconnected by means of a straight pull.

Question 15: Section 1915.71(j)(2), *Scaffolds or staging*, states, "When used with rigid supports, taut wire, or fiber rope of adequate strength may be used." What is the definition of "taut" as used in the standard?

Answer: "Taut" means that when a load of 200 pounds is applied in any direction at any point on the top rail the maximum deflection will not exceed three inches in one direction including the free hanging sag in the rope or chain, and the top edge cannot drop below the minimum height required (42 to 45 inches).

Question 16: Section 1915.72(a)(3), *Ladders*, states, "Portable ladders shall be lashed, blocked, or otherwise secured to prevent their being displaced." What are OSHA's requirements for "stack or scaling ladders"?

Answer: By definition, stack or scaling ladders are portable ladders. Therefore, stack or scaling ladders would have to comply with all the requirements for portable ladders, including 1915.72(a)(3), and be lashed, blocked, or otherwise secured to prevent their being displaced.

Question 17: What is the history of "U" bar guards, and can they be used to temporarily guard flush manholes opened during shipbuilding or ship repair operations?

Answer: According to 1915.73(b), "When employees are working in the vicinity of flush manholes and other small openings of comparable size in the deck and other working surfaces,

such openings shall be suitably covered or guarded to a height of not less than 30 inches, except where the use of such guards is made impractical by the work actually in progress." The "U" bar guard has been widely used throughout the ship repair and shipbuilding industry since the early 1960s as an accepted and suitable method for guarding open flush manholes when permanent guards would be impractical or when the use of a permanent guard would in itself constitute or contribute to a hazard. "U" bars and similar guards have proven to be a practical and suitable solution to various deck opening guarding problems and there have been no known serious injuries attributed to their use. OSHA continues to consider the "U" bar guard as a suitable compliance method for temporarily guarding flush manholes opened during shipbuilding and ship repair operations.

To further clarify the use and suitable applications of "U" bar guards, the following information is provided:

- On certain vessels, particularly tankers and bulk liquid barges, there are a considerable number of manholes, inspection plates, and other deck openings such as Butterworth holes. These openings are used during construction and repair for the entry of men and materials as well as for ventilation, either forced or natural. Uncovered openings may exist for very short periods of time, such as for inspection, or may exist for longer periods of time, as during shipbuilding or major ship repairs. The "U" bar guard was designed to allow for immediate installation, whereas a welded guard would take longer to fabricate than the manhole would be uncovered for work or for inspection.

- The "U" bar guard provides a substantial hand hold for employees entering or leaving the tank or compartment and results in a safer entry and exit, whereas a fixed periphery guard necessitates climbing over the upper rail, which contributes to the hazardous condition.

- Unsecured portable type periphery guards, similar to those used in guarding street utility manholes, would be subject to slipping and sliding on the steel deck when struck by materials or men working in the vicinity.

- A portable or fixed periphery guard would have to be removed to permit materials to be lowered or hoisted into the space, during which time no protection would be provided. In most cases, a "U" bar guard does not require removal for similar operations, thus providing the greatest amount of protection to the employee.

- In tanker and liquid barge repair, where manhole access is necessary into those tanks classified by the Marine Chemist as "Safe for Workers, Not Safe for Hot Work," and where no hot work is permitted, the "U" bar guard is particularly suitable in that no hot work is required for its installation.

- Due to the configuration and standardization of the "U" bar guard, safe storage and handling is achieved, reducing the likelihood of injury.

- Recognizing that manholes are generally of standard size, as are bolt and thread sizes, "U" bar guards designed and fabricated in conformity with general manhole size

standards can be used consistently from vessel to vessel, thereby heightening their acceptability and ready use.

Question 18: Are there safety rules or regulations outlining the safety of personnel while using rolling gangways?

Answer: Gangways are covered by OSHA regulations for shipyard employment under 29 CFR 1915.74, *Access to Vessels*. Additional information on gangways and rolling gangways in particular can be found in the following publications and standards:

- International Labor Organization (ILO) Publication - *Safety and Health in Dockwork*.
- Det Norske Veritas (DNV) Standard - NS 6249.
- International Standard - ISO 5488.
- U.S. Coast Guard Safety Alert - *Gangplanks, A Vital Area for Safety*.

Question 19: Are employees required to use fall protection while erecting, dismantling, or making alterations to scaffolds in excess of five feet in height in ship repairing or shipbuilding operations?

Answer: According to 1915.71(b)(7), "No scaffold shall be erected, moved, dismantled or altered except under the supervision of competent persons." Therefore, a competent person must be capable of recognizing and evaluating an employee's exposure to the hazards involved and be capable of specifying when and how protective measures must be taken to protect against a fall.

The intent of 1915.71(b)(7) is to require employees engaged in erecting, moving, dismantling, or altering scaffolds to be secured at all times by wearing a safety harness and life line when feasible. The approval of the scaffold manufacturer should be obtained prior to allowing a lifeline to be secured to the scaffold frame.

Question 20: Are Ground Fault Circuit Interrupters (GFCIs) required on temporary lighting circuits on vessels?

Answer: Temporary lighting circuits are covered by 29 CFR Part 1915 and some aspects of the 29 CFR Part 1910, General Industry Standard, including Subpart S, Electrical. Neither of these standards requires the employer to use a ground fault circuit interrupter. However, proper adherence to the grounding requirements would prevent employee exposure to electrocution hazards.

Question 21: Section 1915.94, *Work in confined or isolated spaces*, states, "When any work is performed in a confined space, ... or when an employee is working alone in a isolated location, frequent checks shall be made to ensure the safety of the employees." Can an electronic device that monitors the employee in a confined space or a isolated location by sending a periodic "check-in" tone that the employee must respond to, along with satellite tracking of the employee's location, qualify as a frequent check?

Answer: Yes. Such a system would meet the intent of the standard.

Question 22: 1915.98(b) states, "The first aid kit shall consist of a weatherproof container with individual sealed packages for each type of item." "Unit-type kits" have all items in the first aid kit individually wrapped, sealed, and packaged in comparable size packages. "Commercial or cabinet-type kits" do not require all items to be individually wrapped and sealed, but only those items which must be kept sterile. The items in the commercial or cabinet-type kit are not necessarily of uniform size. Are commercial or cabinet-type first aid kits acceptable for compliance with 1915.98(b)?

Answer: Items such as scissors, tweezers, tubes of ointment, or adhesive tape need not be individually wrapped, sealed, or disposed of after a single application. Individual packaging and sealing should be required only for those items which must be kept sterile in a first aid kit as recommended by a consulting physician. Commercial or cabinet-type first aid kits, as well as unit-type first aid kits, meet the requirements of 1915.98(b).

Question 23: Section 1915.112(b)(4) states, "Wire rope shall not be secured by knots." Is it ever acceptable in shipyard employment to secure a wire rope by the use of knots?

Answer: No. Securing a wire rope by the use of knots is strictly prohibited in shipyard employment.

Question 24: What are the certification requirements for cranes located in a shipyard, both floating and shore-based?

Answer: As stated in 1915.115(a)(1), "Derricks and cranes which are part of, or regularly placed aboard barges, other vessels, or on the wingwalls of floating drydocks, and are used to transfer materials or equipment from or to a vessel or drydock, shall be tested and certificated in accordance with the standards provided in Part 1919 by persons accredited for the purpose." Consequently, all shipyard *floating* derricks and cranes that service a vessel or drydock are subject to certification under 1915.115(a)(1). These certifications must be performed by persons accredited for this purpose (i.e., accredited for "full-function vessels" or "floating cranes and derricks") and conducted in accordance with the requirements of 29 CFR Part 1919, *Gear Certification*.

Shipyard *shore-based* cranes and derricks are not required to be certificated in accordance with 29 CFR Part 1919. However, OSHA has a longstanding policy of encouraging shipyard employers to certify shore-based cranes in accordance with Part 1919, particularly those that service vessels and vessel sections.

Additional guidance regarding Part 1919 accreditation and certification requirements can be found in CPL 2-1.39, *Enforcement of Cargo Gear Regulations and the Requirements for Gear Certification in the Maritime Program."*

Question 25: What are the acceptable methods for reconditioning wire rope sheaves on cranes and derricks? Can defective sheaves be reconditioned using portable hand tools?

Answer: For sheave grooves that can be reconditioned (such as iron, steel, and manganese steel), such reconditioning must be performed within the design tolerances allowed for by the manufacturer. The method of reconditioning must provide for the proper groove size, correct groove contour, proper surface condition, and consistent roundness (concentricity) of the sheave. Turning sheave grooves (re-machining) is an acceptable method of reconditioning, provided that the original manufacturer's repair procedures and specifications are followed. Grinding defective sheave grooves with portable hand tools is not an acceptable method of reconditioning sheaves.

Question 26: When conducting a visual inspection of a sheave on a crane or derrick, how is this done and what needs to be looked at? Should the wire rope also be looked at during the visual inspection of the sheaves? When should a sheave be replaced?

If a visual inspection of a sheave on a crane or derrick identifies a condition that has not been previously assessed by the employer, such as corrugation or an unusual wear pattern on the sheave, then a sheave gauge (groove gauge) must be used to accurately assess the wear pattern and the amount of wear to the sheave. Although corrugation (in and of itself as a surface condition) may only cause accelerated wear of the wire rope, it is an indicator that more significant and possibly unsafe sheave component wear conditions may be present.

When excessive component wear is found to exist on a sheave, particular attention should be given to inspecting for distortion and damage to the core of the wire rope. For instance, a wear pattern that is deep and narrow (resulting in a smaller diameter groove) can pinch the wire rope, cause permanent wire rope distortion, and crush the wire rope core. Also, a sheave wear pattern that forms a progressively larger groove diameter may provide insufficient groove contour support (groove diameter too large for the wire rope diameter), cause the wire rope to flatten and become distorted, and result in an increase of the bending fatigue of the wire rope.

Core failure can be checked by diameter measurement (diameter is reduced with core deterioration), or by length of lay measurement (core damage can result in an increase in lay length). Wire ropes that do not meet applicable requirements must be immediately removed from service. A sheave with excessive component wear must be replaced or reconditioned when the wire rope is replaced.

Question 27: Can slings other than those specifically mentioned in the 1915.112 and 1915.118 be used?

Answer: The shipyard standard contains requirements for manilla rope, wire rope, and chain slings. The use of other types of slings is not prohibited. When other types of slings are used, the employer must adhere to the manufacturer's ratings and use recommendations and have such ratings available for inspection.

Question 28: Section 1915.135, *Powder actuated fastening tools*, does not appear to address tools that are fed by a magazine. When are magazine-fed, powder-actuated fastening tools considered safe for inspection?

Answer: In developing and promulgating the standard, the magazine- or clip-fed explosive powder load was not considered. A magazine contains several explosive powder loads and is inserted into the tool; single loads are fed into the ram (firing chamber) as needed. When magazine-fed tools are inspected, the tool is not considered loaded until the magazine feeds an explosive powder load into the tool. A magazine-fed powder-actuated fastening tool is considered safe for inspection when not loaded and the magazine is not attached to the tool or is verified to be empty.

Question 29: Flame-retardant clothing is required for welders by the 1910.252(b)(3) general industry standard and the 1926.350(j) construction standard. What standard applies for welders in shipyard employment with respect to flame-retardant clothing?

Answer: The applicable standard in shipyard employment that requires flame-retardant clothing would be 1915.152, *General Requirements*. Paragraph 1915.152(a) requires that the employer provide and ensure that each affected employee uses the appropriate personal protective equipment (PPE). Paragraph 1915.152(b) requires that the employer assess the work activity to determine whether there are hazards present, or likely to be present, which necessitate employee use of PPE and select the type of PPE that will protect the affected employee(s), communicate selection decisions to affected employees, select PPE that fits each affected employee, and verify that the required occupational hazard assessment has been performed and documented.

Question 30: Can individual employees engaged in shipyard employment be exempt from the requirement to wear head protection in areas where there is a hazard from falling objects?

Answer: OSHA will grant an exemption from citations to employers of employees in all industries who, for reasons of personal religious convictions, object to wearing hardhats in the workplace. However, there could be circumstances that would involve a hazard sufficiently grave to raise a compelling government interest for requiring the wearing of hardhats, notwithstanding an individual employee's personal religious convictions.

Question 31: Section 1915.158(a)(1), *Personal flotation devices (PFDs)*, states, "PFDs (life preservers, life jackets, and work vests) worn by each affected employee shall be United States Coast Guard (USCG) approved pursuant to 46 CFR Part 160 (Type I, II, III, or V PFD) and marked for use as a work vest, for commercial use, or for use on vessels." Can a Type V hybrid life belt, which is equivalent to a Type III PFD, meet the requirements of the standard?

Answer: All hybrid PFDs that are approved by the U.S. Coast Guard have specific restrictions with respect to their approved use. For Type V hybrid PFDs, the USCG can grant type approval as either a recreation hybrid or a commercial hybrid. A recreational hybrid PFD is approved for

use for recreational purposes. A commercial hybrid PFD is approved for use on commercial vessels and occupational purposes.

Each PFD is specifically marked with text which includes the type of approval for use and any restrictions which apply. OSHA accepts USCG devices approved as a Type I PFD, Type II PFD, Type III PFD, or Type V PFD, or their equivalent if the restrictions marked on the PFD do not preclude its use. A Type V hybrid PFD marked as a "Recreational Hybrid" or "For Recreational Use" would not be in compliance with federal OSHA standards since the PFD is approved only for recreational use, and not for commercial use or use as a work vest. A Type V hybrid PFD marked for "Commercial Use," "Use as a Work Vest," "Approved for All Vessels," or "Approved for Merchant Service" would be recognized as being in compliance with federal OSHA standards.

Question 32: What standards apply to lockout/tagout violations on factory equipment aboard fish-processing vessels, Part 1915 or Part 1910?

Answer: As addressed in paragraph "O" of OSHA Instruction CPL 2-1.20, "*OSHA/U.S. Coast Guard Authority Over Vessels*," OSHA has authority on commercial uninspected fishing vessels to cite for all violative working conditions to which any employee (including seamen) is exposed, when such violations occur within OSHA's geographical jurisdiction, and when the hazard is not regulated by the Coast Guard. With respect to lockout/tagout violations on commercial fishing industry vessels, the Coast Guard has not prescribed any regulations in this area.

The Coast Guard does provide for various material requirements on commercial fishing industry vessels, including electrical and hydraulic systems (46 CFR Part 28, Subparts B through G). However, the extent of these regulatory requirements does not address the installation, maintenance, or repair of these systems. As a consequence, OSHA has authority to cite for lockout/tagout violations on fishing industry vessels.

The performance of lockout/tagout functions on a vessel meets the definition of ship repair under 29 CFR 1915.4(j) which states, "The terms *Ship Repair* and *Ship Repairing* mean any repair of a vessel including, but not restricted to, alterations, conversions, installations, cleaning, painting, and maintenance work." Although general industry standards can apply to commercial uninspected fishing vessels, 29 CFR 1910.147 is specifically exempted from applicability to the maritime industry under 1910.147(a)(ii)(A).

Violative lockout/tagout working conditions on commercial fishing industry vessels, including the factory area(s) of fish-processing vessels, will be cited under 29 CFR Part 1915 Subpart J [1915.162, .163, .164 and .165] and Subpart L [1915.181], as applicable. If these standards do not apply, the General Duty Clause will be cited where the evidence supports such a violation.

Question 33: Section 1915.1001(a), *Scope and application* states, "This section regulates asbestos exposure in all shipyard employment work as defined in 29 CFR Part 1915." What guidance is available for OSHA compliance officers and industry employers to assist with the application and enforcement of this standard?

Answer: Assistance with the application and enforcement of the requirements of 29 CFR 1915.1001 can be found in CPL 2-2.63 (REVISED).

Question 34: Does OSHA view wallboard panels and joint compound as a composite building system as does the Environmental Protection Agency (thus allowing for a composite of the bulk sample analysis of the multiple layers)?

Answer: In interpreting the definition of asbestos-containing material (ACM) presented at 29 CFR 1915.1001(b), OSHA regards each of these items used to construct wall shells from wallboard panels as separate materials. Each of the materials that may contain asbestos must be analyzed separately for its asbestos content. If any of these materials contain more than 1 percent asbestos, then the work practices specified in the standard must be followed if the wallboard panels are removed.

Question 35: What class of asbestos work would be involved if the only material containing asbestos greater than 1 percent is the joint compound?

Answer: Removal of [interior] wall shells constructed with sheet rock panels is Class II asbestos work. OSHA does not consider joint compound to be a surfacing material. As indicated on page 41032 of Federal Register, Vol. 59, No. 153, Wednesday, August 10, 1994, joint compound is finishing material. Note that if surfacing material containing more than 1 percent asbestos was applied to the sheet rock panels, removal of the panels would be considered Class I asbestos work.

Question 36: Does the 60-x-60 inch glove bag limit apply to Class I asbestos abatement work?

Answer: There are glove bags available that are larger than the 60-x-60 inch size listed in the definition section of the standard. The 60-x-60 inch limit is intended for Class III abatement work only. Class III abatement work includes glove bags for which the debris area can not exceed that which normally fits into a 60-x-60 inch disposal bag. A repair activity involving "disturbing" ACM that cannot be contained in one standard glove bag must be considered Class I work. For Class I work there is not a size limitation for glove bags. The standard does allow for greater use of glove bags for various job classes. See CPL 2-2.63 (REVISED), pages C-12 and C-13.

Question 37: Are controls available for monitoring a recirculation system as specified under 29 CFR 1910.1025(e)(5)(ii)(B) of OSHA's lead standard?

Answer: Various devices are available that monitor the effectiveness of a system for recirculating air in a workplace where there is lead exposure. Systems that would monitor specifically for lead dust, however, could be costly.

Question 38: Section 1915.1027, *Cadmium* states at 1910.1027(l) *Medical surveillance*, "Biological monitoring that includes the following tests: *(1)* Cadmium in urine (CdU), standardized to grams of creatinine (g/Cr); *(2)* Beta-2

microglobulin in urine (B2-M), standardized to grams of creatinine (g/Cr), with pH specified, as described in appendix F of this section; *(3)* Cadmium in blood (CdB), standardized to liters of whole blood (lab)." What urine sampling issues can be expected to effect accuracy for the detection of cadmium exposures?

Answer: Standard medical practice specifies that when specific gravity is low (for example, less than 1.008), urine samples are too dilute for accurate laboratory analysis. Epidemiological studies of cadmium-induced renal damage, summarized in the preamble to the final cadmium standards, specify that Beta-2 microglobulin (B2-M) will degrade in acidic urine, with pH less than 5.5. Since both cadmium in urine (CdU) and B2-M are standardized to grams of creatinine (CRT), artificially low CRT will inflate CdU and B2-M calculations.

Question 39: Do shipyard employers need to maintain Material Safety Data Sheets (MSDS) for welders working on vessels?

Answer: Any process, including welding, capable of resulting in employee exposure to hazardous chemicals is covered by the Hazard Communication Standard. Welders in shipyards must have access to MSDS for each type of metal and welding rod used, and any other chemical to which they are or may be exposed.

Question 40: When temporary workers are procured from a temporary employment agency, what are the shipyard employer's obligations under the OSH Act?

Answer: In general, situations where a temporary employment agency maintains a continuing relationship with its employees, but the shipyard (the client) creates and controls the hazards, there is a shared responsibility for assuring that the temporary workers are protected from the hazards under the Act. Since the shipyard (the client) creates and controls the hazards, the shipyard has the primary responsibility for such protection. These situations are heavily fact-based; much of the interpretation depends upon the specific facts and circumstances of a particular situation and workplace.

The shipyard may specify what qualifications are required for workers supplied by the temporary employment agency, including medical screening (for respirator use), fit testing, and training in specific chemicals or personal protective equipment (PPE). The shipyard would be responsible for providing PPE for site-specific hazards to which employees may be exposed. However, again, the shipyard may specify the service it wants the temporary employment agency to supply, including provision of PPE for the placed employees.

Where temporary workers are assigned tasks that require medical monitoring, the shipyard must ensure that the required medical surveillance or evaluation is performed, either as part of the shipyard's program or by the temporary employment agency. The temporary employment agency must ensure that the required medical surveillance or evaluation records are maintained in accordance with appropriate OSHA standards.

As for the recordkeeping requirements, shipyards that use workers from temporary employment agencies are responsible for recording those workers occupational injuries and illnesses when the

shipyard provides day-to-day supervision. Otherwise, the temporary employment agency is responsible for maintaining the log of work related injuries and illnesses.

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