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SHIPBUILDERS COUNCIL OF AMERICA

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WASHINGTON 6, D. C.

FEDERAL 8-7722

September 28, 1966

TO: SHIPYARD DELEGATES

SUBJECT: Pending Revisions to Safety and Health Regulations
For Shipbuilding and Ship Repair

Enclosed is copy of transmittal letter and first discussion draft of proposed amendments to the Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking, received from Nelson Bortz, Director, Bureau of Labor Standards. Comments are requested by the Bureau by November 1, 1966.

A preliminary review of these proposals has been made by the Safety Committee of the Council and the Committee agreed at a meeting on September 23 that it would again convene October 31 to draft a statement for transmittal to the Bureau on behalf of the membership of the Council.

To EXPEDITE the coordination of members' views, it is requested that your comment, if any, be received by the Council no later than October 17.

E. P. Ruddy
Edward P. Ruddy
Secretary

Enclosure

(Copy to Safety Committee for information)



U.S. DEPARTMENT OF LABOR
BUREAU OF LABOR STANDARDS
WASHINGTON
20210

IN REPLY REFER TO:

3-232

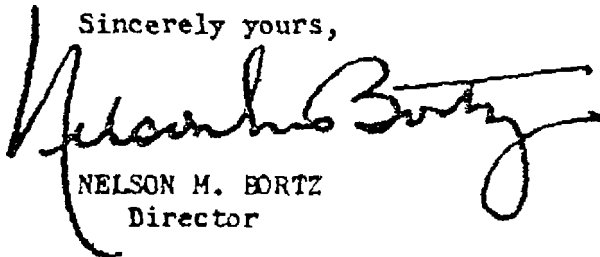
The enclosed first discussion draft of the proposed amendments to the Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking is forwarded for your attention and comments. Your careful consideration of these proposals and your constructive criticisms are invited. The Bureau of Labor Standards staff will be glad to discuss the proposals with you if you so desire.

Please submit in writing any comments you desire to make, either directly to me or through the local Bureau of Labor Standards field office in your area, in time to reach Washington by November 1, 1966.

A second draft will be prepared and published in the Federal Register as the basis for a public hearing.

Your comments assist us in the preparation of practical and effective regulations and are very much appreciated.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'Nelson M. Bortz', is written over the typed name and title.

NELSON M. BORTZ
Director

Enclosure

For Discussion Purposes Only

Proposed Amendments to 29 CFR

Part 1501, Safety and Health Regulations for Ship Repairing
Part 1502, Safety and Health Regulations for Shipbuilding
Part 1503, Safety and Health Regulations for Shipbreaking

Note: Additional or changed wording is underlined.

SUBPART A - GENERAL PROVISIONS

Amend Section 1501.5 as follows:

1501.5 - Reference Specifications, Standards and Codes

Specifications, standards and codes of agencies of the United States Government, to the extent specified in the text, form a part of the regulations of this part. In addition, under the authority vested in the Secretary under the Act, the specifications, standards, and codes of organizations which are not agencies of the United States Government, in effect on the date of the promulgation of the regulations of this part as listed below, to the extent specified in the text, form a part of the regulations of this part:

National Fire Protection Association, 60 Batterymarch Street,
Boston, Massachusetts 02110, Subpart B, Section 1501.13(a)

Underwriters' Laboratories, Inc., 207 East Ohio Street,
Chicago, Illinois 60611, Subpart C, Section 1501.24(b)(7).

American Standard Safety Code for Portable Wood Ladders, A14.1-
1959, American Standards Association, Inc., 10 E. 40th Street,
New York, New York 10016, Subpart E, Section 1501.42(a)(6).

American Standard Safety Code for Portable Metal Ladders, A14.2-
1956, American Standards Association, Inc., 10 E. 40th Street,
New York, New York 10016, Subpart E, Section 1501.42(a)(4).

American Standard Safety Code for Head, Eye and Respiratory
Protection, Z2.1- 1959, American Standards Association, Inc.,
10 E. 40th Street, New York, New York 10016, Subpart I,
Sections 1501.81(a)(1), 1501.83(b).

American Society of Mechanical Engineers, Boiler and Pressure
Vessel Code, Section VIII, Rules for Construction of Unfired
Pressure Vessels, 1966, American Society of Mechanical
Engineers, 29 W. 39th Street, New York, New York 10018, Sub-
part K, Section 1501.101(a).

Threshold Limit Values for 1966, American Conference of Governmental Industrial Hygienists, 1014 Broadway, Cincinnati, Ohio 45202, Subpart B, Section 1501.11(a)(6); Subpart C, 1501.21(b).

Explanation

To change zone numbers to zip code numbers and to update the American Society of Mechanical Engineers Boiler and Pressure Vessel Code and the Threshold Limit Values.

Section 1502.5 - Same as above except for section reference numbers which remain the same as those in the present shipbuilding regulation.

Section 1503.5 - Same as above except for section reference numbers which remain the same as those in the present shipbreaking regulation. The ASME Boiler and Pressure Vessel Code does not apply and is omitted.

SUBPART B - EXPLOSIVE AND DANGEROUS ATMOSPHERES

Amend Section 1501.10(c)(1) as follows:

1501.10(c) - Logging of Inspections and Tests.

(1) When tests and inspections required to be performed by a competent person by any provisions of Subparts B, C, D, and H of this part, except those referred to in Section 1501.11(a)(1)(iv) and 1501.24(b)(8), are made, a record of the locations, operations performed and date, time, and results of the tests and any instructions resulting therefrom shall be recorded on U. S. Department of Labor Form MAR-9, "Log of Inspections and Tests By Competent Person." A separate form shall be used for each vessel on which tests and inspections are made.

Amend Section 1502.10(c)(1) as follows:

1502.10(c) - Logging of Inspections and Tests.

(1) When tests and inspections required to be performed by a competent person by any provisions of Subparts C, D, and H of this part, except those in Section 1502.24(b)(8), are made, a record of the locations, operations performed and date, time, and results of the tests and any instructions resulting therefrom shall be recorded on U. S. Department of Labor Form MAR-9, "Log of Inspections and Tests By Competent Person." A separate form shall be used for each vessel on which tests and inspections are made.

Explanation

To include Subpart H, in which the responsibilities of the competent person have been extended by proposed Section 1501.76(c), and 1502.76(c).

Amend Section 1501.11 as follows:

Delete subparagraph (a)(3), amend and renumber subparagraph (a)(5) as (a)(3) and amend the remainder of paragraphs (a) and (b).

1501.11(a) - Gassy Atmospheres

(1) Before employees are initially permitted to enter any of the ship's spaces designated in subdivisions (i) to (iv) of this subparagraph, the atmosphere shall be tested by a competent person to determine whether or not a flammable or toxic atmosphere is present.

(i) Cargo spaces or other spaces containing or having last contained combustible or flammable liquids or gases in bulk.

(ii) Cargo spaces or other spaces containing or having last contained bulk liquid or gas cargoes of a poisonous, corrosive, or irritant nature.

(iii) Spaces in tank vessels immediately above or adjacent to those described in subdivisions (i) to (ii) of this subparagraph.

(iv) Spaces that have been fumigated.

(2) If the atmosphere is found to contain flammable or explosive vapors in concentrations at or above ten percent of their lower explosive limit, the space shall be ventilated sufficiently to bring the concentration below ten percent of the lower explosive limit, and when necessary, the provision of subparagraph (6) of this paragraph shall be applied.

(3) Where tests indicate that no flammable vapors are present, the competent person shall test the atmosphere to ensure that it contains at least 16.5% oxygen.

(4) If the atmosphere contains a concentration of toxic materials immediately dangerous to life the space shall be ventilated sufficiently to bring the concentration within safe limits, and when necessary the provisions of subparagraph (6) of this paragraph shall be applied.

(5) If, in an emergency, time does not allow ventilation required by subparagraphs (2) and (4) of this paragraph to be applied, employees shall be protected by respiratory protective equipment and life lines in accordance with the requirements of Section 1501.82(a) and (b).

(6) If the atmosphere is found to contain a concentration of hazardous contaminants below ten percent of the lower explosive limit, or less than the level immediately dangerous to life for toxic substances, but above the threshold limit values for flammable or toxic substances, employees shall be protected in accordance with the requirements of Section 1501.82(a) and (c).

(b) Oxygen Deficient Atmospheres.

(1) Before employees are permitted to enter sealed compartments, spaces which have been in a state of preservation, or any nonventilated compartments which have been freshly painted, the atmosphere shall be tested by a competent person with an oxygen indicator or other suitable device to ensure that it contains at least 16.5% oxygen.

(2) If the oxygen content is less than 16.5% the space shall be ventilated until tests indicate an oxygen content above this level.

(3) If, in an emergency, time does not allow ventilation required by subparagraph (2) of this paragraph to be applied, employees shall be protected by respiratory protective equipment and life lines in accordance with the requirements of Section 1501.82(a) and (b).

Explanation

The several changes and additions to paragraphs (a) and (b) make mandatory testing and if necessary the ventilation of designated ship's spaces prior to entry and to permit the use of respiratory protective equipment as an alternative to ventilation only in emergency situations.

Subparagraph (a)(3) is deleted because the substance of it is contained in .82(b)(3).

Present subparagraph (a)(5) is renumbered (a)(3) for better continuity.

Section 1503.11 - Same as above, except delete words "which have been freshly painted" in subparagraph (b)(1).

Amend Section 1501.12(b) as follows:

1501.12(b) - Only approved explosion-proof, self-contained battery-fed, portable lamps shall be used in spaces described in paragraphs (a) of Section 1501.13 before they have been certified as safe for fire. Battery-fed, portable lamps bearing the approval of the Underwriters' Laboratories for use in Class I, Group D atmospheres, or approved as permissible by the U. S. Bureau of Mines, and such lamps

listed by the U. S. Coast Guard as approved for such use are deemed to meet the requirements of this paragraph.

Explanation

To clarify the point that explosion-proof, battery-fed lamps are required in spaces containing or having contained flammable liquid only before they are certified as safe for fire.

Section 1503.12(b) - Same as above except for reference to paragraph in Section 1503.13.

SUBPART C - SURFACE PREPARATION AND PRESERVATION

Amend Section 1501.21 as follows:

Delete paragraphs (c) and (d), reletter present paragraph (e) as (c), and amend paragraph (a).

1501.21(a) When toxic solvents are used, the employer shall employ one or more of the following measures to safeguard the health of employees exposed to these solvents.

(1) The cleaning operation shall be completely enclosed to prevent the escape of vapor into the working space.

(2) Either natural ventilation or mechanical exhaust ventilation shall be used to remove the vapor at the source and to dilute the concentration of vapors in the working space to the point at which an unsafe concentration does not exist.

(3) Employees shall be protected by suitable respiratory protective equipment in accordance with the requirements of Section 1501.82(a) and (c).

(b) The principles in the threshold limit values to which attention is directed in Section 1501.5 will be used by the Department of Labor in enforcement proceedings in defining a safe concentration of vapors.

(c) When flammable solvents are used, precautions shall be taken in accordance with the requirements of Section 1501.25.

Explanation

The amendment of this section is required by new paragraphs 1501.57(a), (b), and (c).

Section 1502.21 - Same as above.

Add new Section 1501.23(c)(1)(iv) as follows:

1501.23(c)(1)(iv) A control device shall be provided at the nozzle end of the blasting hose to provide for control of the flow by the blaster, and to provide automatic cutoff in the event he loses control of the hose.

Explanation

To provide control of this flow at the nozzle. This is to prevent recurrence of several accidents that have occurred when the pot tender misinterpreted a motion of the blaster to mean "turn on the flow," which resulted in badly injuring the blaster. In instances when the blaster lost control of his hose it whipped him and others in the immediate area, which an automatic shutoff would prevent.

Section 1502.23(c)(1)(iv) - Same as above.

Amend Section 1501.24(a)(4) as follows:

1501.24(a)(4) Air moving devices, including fans, blowers, and jet type air movers, and metallic parts of duct work shall be electrically bonded to the vessel's structure.

Explanation

To extend the present ruling to include all air moving devices and ducts.

Section 1502.24(a)(4) - Same as above.

SUBPART D - WELDING, CUTTING AND HEATING

Amend Section 1501.31(a)(1)(vi) as follows:

1501.31(a)(1)(vi) Oxygen shall not be used for ventilation purposes or for comfort cooling.

Explanation

To include the prohibition of the use of oxygen to cool the body.

Section 1502.31(a)(1)(vi) and 1503.31(a)(1)(vi) - Same as above.

Amend Section 1501.35(a)(9) as follows:

1501.35(a)(9) Acetylene cylinders shall be kept upright at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried.

Explanation

To permit laying acetylene cylinders on their sides when handling them on pallets or when hand carrying.

Sections 1502.35(a)(9) and 1503.35(a)(9) - Same as above.

Amend Section 1501.35(e)(2) as follows:

1501.35(e)(2) All manifolds shall be placed in safe and accessible locations in the open. They shall not be located within enclosed spaces.

Explanation

To prohibit the placing of manifolds in enclosed spaces.

Sections 1502.35(e)(2) and 1503.35(e)(2) - Same as above.

Amend Section 1501.35(e)(3) as follows:

1501.35(e)(3) All manifold hose connections, including inlet and outlet, shall be such that hose cannot be interchanged between fuel gases and oxygen manifolds and headers. Adaptors shall not be used to permit the interchange of hose. Manifold hose connections shall be kept free of grease and oil.

Explanation

To make clear the original intent that all manifold connections are covered, including the connections at the fuel gas and oxygen supply headers.

Sections 1502.35(e)(3) and 1503.35(e)(3) - Same as above.

Add Section 1501.35(e)(4) as follows:

1501.35(e)(4) Nothing shall be placed on top of a manifold, when in use, which may damage the manifold or interfere with the quick closing of the valves.

Explanation

To extend to manifolds the ruling that presently applies to fuel gas cylinders, viz., (Section 1501.35(a)(2)).

Sections 1502.35(e)(4) and 1503.35(e)(4) - Same as above.

Amend Section 1501.35(g) as follows:

(1) Clogged torch tip openings shall be cleaned with suitable cleaning wires, drills or other devices designed for such purpose.

(2) Torches shall be inspected at the beginning of each shift for leaking shutoff valves, hose couplings, and tip connections. Defective torches shall not be used.

Explanation

To provide a check on leaks in the torch and in the hose connections to the torch and to prohibit the use of defective torches.

Sections 1502.35(g) and 1503.35(g) - Same as above.

Amend Section 1501.36(a)(2) as follows:

1501.36(a)(2) Any current carrying parts passing through the portion of the holder which the arc welder or cutter grips in his hand, and the outer surfaces of the jaws of the holder, shall be fully insulated against the maximum voltage encountered to ground.

Explanation

To protect welders from electrical shock from uninsulated jaws of electrode holders and to minimize possibility of accidental arcing from the exposed parts.

Sections 1502.36(a)(2) and 1503.36(a)(2) - Same as above.

SUBPART E - SCAFFOLDS, LADDERS AND OTHER WORKING SURFACES

Amend Section 1501.41(a)(6) as follows:

1501.41(a)(6) Barrels, boxes, cans, loose bricks or other unstable objects shall not be used as working platforms or for the support of planking intended as scaffolds or working platforms.

Explanation

To prohibit the use of the above unstable objects themselves as working platforms.

Sections 1502.41(a)(6) and 1503.41(a)(6) - Same as above.

Amend Section 1501.41(i)(3) as follows:

1501.41(i)(3) Rails may be omitted where the structure of the vessel prevents their use. When rails are omitted employees working more than 5 feet above solid surfaces shall be protected by safety belts and life lines meeting the requirements of Section 1501.84(b), and employees working over water shall be protected by buoyant work vests meeting the requirements of Section 1501.84(a).

Explanation

To change the word "working" to "work," to agree with the nomenclature used by the U. S. Coast Guard.

Sections 1502.41(i)(3) and 1503.41(e)(3) - Same as above.

Amend title to Section 1501.43 as follows:

1501.43 - Guarding of Deck Openings and Edges.

Explanation

To include in the title the subject matter of added paragraphs (c) and (d) of this section.

Section 1502.43 - Same as above.

Add Section 1501.43(c) as follows:

1501.43(c) When employees are exposed to unguarded edges of decks, platforms, flats, and similar flat surfaces, more than five feet above a solid surface, the edges shall be guarded by adequate guardrails meeting the requirements of Section 1501.41(i)(1) and (2), unless the nature of the work in progress or the physical conditions prohibit the use or installation of such guardrails.

Explanation

To provide protection to employees when working or walking on decks and other similar flat surfaces with exposed edges more than 5 feet above a solid surface. This does not apply to scaffolds, which are covered by Section 41(i).

Section 1502.43(c) - Same as above.

Add Section 1501.43(d) as follows:

1501.43(d) When employees are working near the unguarded edges of decks of vessels afloat, they shall be protected by buoyant work vests, in accordance with the requirements of Section 1501.84(a).

Explanation

Transferred from 1501.84(a)(1) for better context.

Section 1502.43(d) - Same as above.

Add Section 1501.43(e) as follows:

1501.43(e) Sections of bilges from which floor plates or gratings have been removed shall be guarded by guardrails except where they would interfere with work in progress. If these open sections are in a walkway at least two 10 inch planks or equivalent shall be laid across the opening to provide a safe walking surface.

Explanation

To guard exposed edges of open bilges and to provide a safe walking surface over hazardous open bilge areas.

Add Section 1502.43(e) as follows:

1502.43(e) Sections of bilges in which floor plates or gratings have not been installed shall be guarded by guardrails except where they would interfere with work in progress. If these open sections are in a walkway at least two 10 inch planks or equivalent shall be laid across the opening to provide a safe walking surface.

Explanation

To guard exposed edges of open bilges and to provide a safe walking surface over hazardous open bilge areas.

Add Section 1501.43(f) as follows:

1501.43(f) Gratings, walkways, and catwalks, from which sections or ladders have been removed, shall be temporarily barricaded with adequate guardrails.

Explanation

To guard exposed edges of gratings and catwalks.

Add Section 1502.43(f) as follows:

1502.43(f) Gratings, walkways, and catwalks, in which sections of gratings and ladders have not been installed shall be temporarily barricaded with adequate guardrails.

Explanation

To guard exposed edges of gratings and catwalks.

Amend title to Section 1501.45 as follows:

1501.45 Access to and Guarding of Drydocks and Marine Railways.

Explanation

To include in the title the subject matter of added paragraph (g) of this section.

Sections 1502.45 and 1503.45 - Same as above.

Add Section 1501.45(g) as follows:

1501.45(g) Catwalks on stiles of marine railways shall be no less than 20 inches wide and shall have on at least one side a guardrail and midrail in accordance with the requirements of Section 1501.41(i)(1) and (2).

Explanation

To provide protection to employees against falls when using the catwalks on the railway stiles.

Sections 1502.45(g) and 1503.45(g) - Same as above.

Amend Section 1501.47 as follows:

1501.47 - Working Surfaces
Assign (a) to first paragraph.

Explanation

Present first paragraph not lettered.

Section 1502.47 - Same as above.

Add Section 1501.47(b) as follows:

1501.47(b) When employees are working aloft, or elsewhere at elevations more than 5 feet above a solid surface, either scaffolds or a sloping ladder, in accordance with the requirements of this subpart, shall be used to afford safe footing, or the employees shall be protected by safety belts and life lines in accordance with the requirements of Section 1501.84(b).

Explanation

To provide protection for employees working on surfaces located 5 feet or higher above open decks, or above decks of enclosed spaces, such as holds or machinery compartments, where employees are presently perching on structurals and battens or on machinery and railings. It includes provisions regarding work aloft presently contained in Section 84(b)(1).

Section 1502.47(b) - Same as above.

Add Section 1501.47(c) as follows:

1501.47(c) When employees are boarding, leaving, or working from small boats or floats they shall be protected by buoyant work vests meeting the requirements of Section 1501.84(a).

Explanation

To place in a more logical position a requirement presently contained in Section 84(b)(1) and to broaden it by requiring the wearing of buoyant work vests when boarding or leaving small boats or floats.

Section 1502.47(c) - Same as above.

Amend Section 1501.51(a) as follows:

1501.51(a) Good housekeeping conditions shall be maintained at all times. Adequate aisles and passageways shall be maintained in all work areas. All staging platforms, ramps, stairways, walkways, aisles and passageways on vessels or drydocks shall be kept clear of tools, materials, and equipment, and all debris such as welding rod tips, bolts, nuts, and similar material. Hose and electric conductors shall be elevated over or placed under the walkway or working surfaces or covered by crossover planks.

Explanation

To prohibit tools, materials and equipment as well as debris from cluttering the walking and working surfaces.

To include all types of electric cables and hose.

To add the word "working" to make clear the locations to be kept free of equipment and debris.

Section 1502.51(a) - Same as above.

Amend Section 1501.52(b)(2) as follows:

1501.52(b)(2) Temporary lights shall be equipped with heavy duty electric cords with connections and insulation maintained in safe condition. Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this means of suspension. Splices whose insulating quality is equal to that of the cable are permitted.

Explanation

To require that splices, if made, should be properly insulated.

Sections 1502.52(b)(2) and 1503.52(b)(2) - Same as above.

Add Section 1501.53(c)(1) as follows:

1501.53(c) Infra-Red Electrical Heat Lamps

(1) All infra-red electrical heat lamps shall be equipped with guards that surround the lamps with the exception of the face, to minimize accidental contact with the lamps.

Explanation

To provide partial protection against contact with the lamps, and against breakage.

Section 1502.53(c)(1) - Same as above.

Amend Section 1501.57 as follows:

Change present paragraphs (a), (b), and (c) to (d), (e), and (f), and add new paragraphs (a), (b) and (c).

(a) No chemical product, such as a solvent or preservative; structural material, such as cadmium or zinc coated steel or plastic materials; or process material, such as welding rod, shall be used until the employer ascertains the potential fire and toxic hazards which may be encountered in the handling, application, or utilization of these materials.

(b) The employer shall instruct employees who will be exposed to the hazardous materials as to the nature of the hazards and the means of avoiding them.

(c) The employer shall provide all necessary controls and personal protective equipment necessary to protect employees against such hazards, including, but not limited to, those materials for which specific precautions are required in Subparts B, C, and D.

Explanation

Present paragraphs (a), (b), and (c) changed to (d), (e), and (f) to allow new paragraphs (a), (b), and (c) to serve as introductory material.

To require employers to determine the potential fire and toxic hazards of the various products used in shipyards, in order to take proper and adequate control measures, and to provide such special protective equipment as is necessary to protect employees.

Amend Section 1502.57 as follows:

1502.57 Change present paragraphs (a) and (b) to (d) and (e) and add new paragraphs (a), (b) and (c). Change the letters B, C, and D, in paragraph (c) to C and D.

Explanation

The content of the amendments is similar to that in ship repairing, except for references to the subparts in paragraph (c).

Amend Section 1503.57 as follows:

Change present paragraphs (a), (b), and (c) to (d), (e), and (f), and add new paragraphs (a), (b) and (c). Change the letters B, C, and D, in paragraph (c) to B and D.

Explanation

The content of the amendments is similar to that in ship repairing, except for references to the subparts in paragraph (c).

Amend Section 1501.58(d) as follows:

1501.58(d) There shall be available for each vessel on which ten or more employees are working one Stokes basket stretcher, or equivalent, permanently equipped with bridles for attaching to the hoisting gear, except that no more than two stretchers are required on each job location. A blanket or other liner suitable for transferring the patient to and from the stretcher shall be provided. Stretchers shall be kept close to the vessels. This paragraph does not apply where ambulance services carry such stretchers.

Explanation

To include with the stretcher a means of removing the patient from it without further injury. A woolen blanket or any other strong fabric or paper product which will conform to the shape of the stretcher may be used.

SUBPART G - GEAR AND EQUIPMENT FOR RIGGING AND MATERIALS HANDLING

Amend Section 1501.62(b)(3) as follows:

1501.62(b)(3) Where U-bolt wire rope clips are used to form eyes, Table G-6 in Section 1501.68 shall be used to determine the number and spacing of clips. In no case shall fewer than three clips be used. The U-bolt shall be applied so that the "U" section is in contact with the dead end of the rope.

Explanation

To require that no fewer than 3 clips be used with wire under 1/2 inch in diameter. This is in accordance with ASA standards and State codes.

Sections 1502.62(b)(3) and 1503.62(b)(3) - Same as above

Add Section 1501.64(d) as follows:

1501.64(d) Scaffolding shall not be used as a point of attachment for lifting devices, such as tackles, chain falls, and pull-lifts.

Explanation

To prevent load stresses being placed on scaffolding beyond their designed strength capabilities.

Sections 1502.64(d) and 1503.64(d) - Same as above.

Amend Section 1501.65 as follows:

Change present paragraph (a) to (b). Change present paragraph (b) to (c). Change present subparagraph (b)(3) to (d) and amend. Change present paragraph (c) to (e). Add new paragraph (a).

1501.65(a) Derrick and Crane Certification

(1) Derricks and cranes which are part of or regularly aboard floating barges and other vessels, and on wingwalls of floating drydocks, to transfer materials or equipment from or to a vessel or drydock, shall be tested and certificated in accordance with the requirements of 29 CFR, Part 1505, by persons accredited for that purpose.

(2) This subparagraph shall take effect 180 days after the effective date of this amendment.

(d) Accessible areas within the swing radius of the outermost part of the body of a revolving derrick or crane either permanently or temporarily mounted, shall be guarded in such a manner as to prevent an employee from being in a position to be struck by the crane or caught between the crane and fixed parts of the vessel or of the crane itself.

Explanation

Paragraphs relocated to allow new paragraph (a) to serve as introductory material.

To place certification requirements on shipyard derricks and cranes, located on vessels or drydocks, in order to ensure uniformly high standards of construction and maintenance.

To include guarding of accessible areas within the swing radius of fixed derricks and cranes designed as part of the barge unit.

Sections 1502.65 and 1503.65 - Same as above.

Amend Section 1501.66(n) as follows:

Change present paragraphs (n) and (o) to (o) and (p).

1501.66(n) Hatches shall not be opened or closed while employees are in the square of the hatch below.

Explanation

To prohibit a practice which may produce serious injuries if hatch covers, beams or material on them are dropped while handling.

New paragraph (n) placed next to paragraph (m) which contains related subject matter.

Section 1502.66(n) - Same as above.

Amend Section 1501.66(m) as follows:

1501.66(m) A section of hatch through which materials or equipment are being raised, lowered, moved or otherwise shifted by a crane, winch, hoist or derrick, shall be completely opened. The beam or pontoon left in place adjacent to an opening shall be sufficiently lashed, locked or otherwise secured to prevent it from being unshipped.

Explanation

To make clear the intent of this regulation as applying to two separate situations, viz., to a hatch with beams or to a hatch with pontoons.

Sections 1502.66(m) and 1503.66(m) - Same as above.

Add title: Section 1501.68 Tables

Explanation

To add title which is presently missing.

SUBPART H - TOOLS AND RELATED EQUIPMENT

Amend Section 1501.71(a) as follows:

1501.71(a) Hand lines, slings, or tackles of adequate strength shall be provided and used to handle tools, materials and equipment so that employees will have their hands free when using ship's ladders and access ladders. The use of hoses or electric cords for this purpose is prohibited.

Explanation

To clarify the point that the hand lines, slings, or tackles shall be used.

Sections 1502.71(a) and 1503.71(a) - Same as above.

Amend Section 1501.71(d) as follows:

1501.71(d) The moving parts of machinery and tools shall be guarded.

Explanation

In addition to guarding machinery on drydocks, to include guarding of gearing and belting of drives on tools used on board ship, in repairing and building operations such as stern tube boring bars, and engine crank shaft machining and honing tools.

Section 1502.71(d) - Same as above.

Add Section 1501.71(f) as follows:

1501.71(f) Separate hose connections on compressed air lines and headers, and manifolds, shall bear the word "Air" in letters at least one inch high, which shall be either painted on the separate hose connections or manifolds, or on a sign permanently attached to the connections or manifolds.

Explanation

To enable employees to recognize compressed air connections and to reduce the possibility of their mistakenly using hazardous gases as air.

Sections 1502.71(f) and 1503.71(f) - Same as above.

Add Section 1501.71(g) as follows:

1501.71(g) Before use, compressed air hoses shall be examined. Worn, frayed, or visibly unsafe hose shall not be used.

Explanation

To provide for examination of hose prior to use, and rejection of faulty hose.

Sections 1502.71(g) and 1503.71(g) - Same as above.

Amend Section 1501.74(c) as follows:

1501.74(c) Cup type wheels used for external grinding shall be protected by either a revolving cup guard or a band type guard. All

other portable abrasive wheels used for external grinding shall be provided with safety guards (protection hoods) meeting the requirements of paragraph (e) of this section, except as follows:

Explanation

To provide a full guard for cup type abrasive wheels at all times.

Sections 1502.74(c) and 1503.74(c) - Same as above.

Add Section 1501.76 as follows:

1501.76 Internal Combustion Engines, Other Than Ship's Equipment

(a) When internal combustion engines, furnished by the employer, are used in a fixed position below decks, for such purposes as driving pumps, generators, and blowers, the exhaust shall be led to the open air, clear of any ventilation intakes and openings through which it might enter the vessel.

(b) All exhaust line joints and connections shall be checked for tightness immediately upon starting the engine, and any leaks shall be corrected at once.

(c) When internal combustion engines on mobile vehicles such as forklifts, mobile cranes, and front loaders exhaust into the atmosphere below decks, the competent person shall make tests of the carbon monoxide content of the atmosphere as frequently as conditions require to ensure that dangerous concentrations do not develop. Employees shall be removed from the compartment involved when the carbon monoxide concentration exceeds 100 parts per million (.01%). The employer shall use blowers sufficient in size and number and so arranged as to lower the concentration below this allowable limit before work is resumed.

Explanation

To provide protection against concentration of carbon monoxide below decks and in enclosed spaces.

Section 1502.76 - Same as above.

SUBPART I - PERSONAL PROTECTIVE EQUIPMENT

Amend Section 1501.81(c)(1) as follows:

1501.81(c) Protection Against Radiant Energy

(1) In any operation in which the eye hazard of injurious light rays or other radiant energy exists, depending upon the intensity of the radiation to which employees are exposed, they shall be protected by spectacles, cup goggles, helmets, hand shields, or face shields in accordance with the requirements of paragraphs (a) and (c)(2) of this section.

Explanation

To include the tinted face shield as a protective device for the eyes against exposure to radiant light energy. These are presently being used in burning operations in shipbreaking. They afford full face as well as eye protection.

Sections 1502.81(c)(1) and 1503.81(c)(1) - Same as above.

Amend Section 1501.84(a) as follows:

Transfer present 1501.84(a)(1) to 1501.43(d) and 1501.47(c).

1501.84(a) Buoyant Work Vests.

(1) Buoyant work vests required by these regulations shall be approved by the U. S. Coast Guard.

(2) Prior to each use, buoyant work vests shall be inspected for dry rot, chemical damage or other defects which may affect their strength or buoyancy. Defective buoyant work vests shall not be used.

Explanation

To retain in this section such subject matter as pertains to approval and inspection of buoyant work vests.

To transfer subject matter dealing with specific use of buoyant work vests to above appropriate sections.

To change the word "working" to "work" to agree with the nomenclature used by the U. S. Coast Guard.

To require inspection of buoyant work vests before use and rejection of defective vests.

Sections 1502.84(a) and 1503.84(a) - Same as above.

Amend Section 1501.84(b) as follows:

Transfer present 1501.84(b)(1) to 1501.47(b).
Transfer present 1501.84(b)(2) to 1501.11(b)(3).
Change paragraph (b)(3) to (b)(2).
Change paragraph (b)(4) to (b)(3) and amend.

1501.84(b) Safety Belts and Life Lines.

(1) Safety belts shall be equipped with life lines which in use are secured with a minimum of slack to a fixed structure.

(2) Prior to each use, belts and life lines shall be inspected for dry rot, chemical damage or other defects which may affect their strength. Defective belts and life lines shall not be used.

(3) When employees are working in any location requiring a safety belt and a life line, care shall be exercised to ensure that the line is not cut, pinched or led over a sharp edge. In hot work operations or those involving the use of acids or caustics, the line shall be kept clear to avoid its being burned or weakened. In order to keep the life line continuously attached with a minimum of slack to a fixed structure the attachment point of the life line shall be appropriately changed as the work progresses.

Explanation

To retain in this section such subject matter as pertains to inspection and care of safety belts and life lines.

To transfer subject matter dealing with specific use of safety belts and life lines to above appropriate sections.

Sections 1502.84(b) and 1503.84(b) - Same as above, except add the following to 1502.84(b)(4):

In order to keep the lifeline continuously attached with a minimum of slack to a fixed structure, the attachment point of the life line shall be appropriately changed as the work progresses.

Amend Section 1501.84(c)(4) as follows:

1501.84(c)(4) In the vicinity of each vessel afloat on which work is being performed there shall be at least one portable or permanent ladder of sufficient length to assist employees to reach safety in the event that they fall into the water.

Explanation

To require ladders in the same situations as life rings are required.

Sections 1502.84(c)(4) and 1503.84(c)(4) - Same as above.

SUBPART J - SHIP'S MACHINERY AND PIPING SYSTEMS

Amend Section 1501.91(a)(1) as follows:

1501.91(a)(1) The isolation and shut-off valves, which are perfectly tight, connecting the dead boilers with the live boilers shall be secured, locked and tagged, indicating that employees are working in the boilers. Valves which are not perfectly tight shall be blanked and tagged. Locks or blanks and tags shall not be removed until it is determined that this may be done without creating a hazard to the employees working in the boilers, or until the work is completed.

Explanation

To permit isolation of dead boilers from live boilers by closing interconnecting valves, and then locking and tagging them. This will be permitted only for valves that close tightly. This revised procedure is meant to simplify the isolation of the boilers and yet retain the same degree of safety.

Section 1502.91(a)(1) - Same as above.

Amend Section 1501.92(a)(1) as follows:

1501.92(a)(1) The isolation and shut-off valves, which are perfectly tight, connecting the dead system with the live system or systems, shall be secured, locked and tagged, indicating that employees are working on the system. Valves which are not perfectly tight shall be blanked and tagged. Locks or blanks and tags shall not be removed until it is determined that this may be done without creating a hazard to the employees working on the system, or until the work on the system is completed.

Explanation

To permit isolation of a dead piping system from the live piping systems by closing the interconnecting valves, and then locking and tagging them. This will be permitted only for valves that close tightly. This revised procedure is meant to simplify the isolation of the piping system and yet retain the same degree of safety.

Section 1502.92(a)(1) - Same as above.

SUBPART L - ELECTRICAL MACHINERY

Amend Section 1501.111 as follows:

Change present paragraph (b) to (c), amend paragraph (a) and place portion of it in new paragraph (b).

1501.111(a) Before an employee is permitted to work on an electrical circuit, except when the circuit must remain energized for testing and adjusting, the circuit shall be deenergized and checked at the point at which the work is to be done to ensure that it is actually deenergized.

(b) Deenergizing the circuit shall be accomplished by opening the circuit breaker, opening the switch, or removing the fuse, whichever method is appropriate. The circuit breaker, switch, or fuse location shall be tagged to indicate that an employee is working on the circuit. Such tags shall not be removed nor the circuit energized until it is definitely determined that the work on the circuit has been completed.

(c) When work is performed immediately adjacent to an open-front energized board or in back of an energized board, the board shall be covered or some other equally safe means shall be used to prevent contact with any of the energized parts.

Explanation

Present paragraph (b) changed to (c) to permit breakdown of present paragraph (a).

To provide further protection by checking the point at which the work is to be done.

To eliminate the words "authorized employee" to prevent its misinterpretation.

Section 1502.111 - Same as above.