

PAPERWORK REDUCTION ACT SUBMISSION

Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form the collection instrument to be reviewed, the Supporting Statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 101022, 725 17th Street, NW, Washington, DC 20503.

<p>1. Agency/Subagency originating request</p> <p style="text-align: center;">Department of Labor Occupational Safety and Health Administration</p>	<p>2. OMB control number</p> <p>a. 1218 - 0011 b. <input type="checkbox"/> None _____ (new)</p>																																		
<p>3. Type of information collection (check one)</p> <p>a. <input type="checkbox"/> New Collection</p> <p>b. <input type="checkbox"/> Revision of a currently approved collection</p> <p>c. <input checked="" type="checkbox"/> Extension of a currently approved collection</p> <p>d. <input type="checkbox"/> Reinstatement, without change, of a previously approved collection for which approval has expired</p> <p>e. <input type="checkbox"/> Reinstatement, with change, of a previously approved collection for which approval has expired</p> <p>f. <input type="checkbox"/> Existing collection in use without an OMB control number</p> <p><i>For b-f, note item A2 of Supporting Statement instructions</i></p>	<p>4. Type of review requested (check one)</p> <p>a. <input checked="" type="checkbox"/> Regular</p> <p>b. <input type="checkbox"/> Emergency - Approval requested by: ___/___/___</p> <p>c. <input type="checkbox"/> Delegated</p> <p>5. Small entities Will this information collection have a significant economic impact on a substantial number of small entities? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <hr/> <p>6. Requested expiration date</p> <p>a. <input checked="" type="checkbox"/> Three years from approval date?</p> <p>b. <input type="checkbox"/> Other Specify: ___ / ___ (month/ year)</p>																																		
<p>7. Subpart A (General Provisions) and Subpart B (Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyards) of 29 CFR part 1915</p>																																			
<p>8. Agency form number(s) (if applicable): None</p>																																			
<p>9. Keywords:</p>																																			
<p>10. Abstract: To ensure that shipyard personnel do not enter confined spaces that contain oxygen deficient, toxic or flammable atmospheres. Qualified (competent) personnel must test such spaces. Information provides individuals deemed qualified by the employer to conduct such tests, plus results and instructions.</p>																																			
<p>11. Affected public (Mark primary with "P" and all others that apply with "X")</p> <p>a. <input type="checkbox"/> Individuals or households</p> <p>b. <input checked="" type="checkbox"/> Business or other for-profit</p> <p>c. <input type="checkbox"/> Not-for-profit institutions</p> <p>d. <input type="checkbox"/> Farms</p> <p>e. <input type="checkbox"/> Federal Government</p> <p>f. <input type="checkbox"/> State, Local or Tribal Government</p>	<p>12. Obligation to respond (Mark primary with "P" and all others that apply with "X")</p> <p>a. <input type="checkbox"/> Voluntary</p> <p>b. <input type="checkbox"/> Require to obtain or retain benefits</p> <p>c. <input checked="" type="checkbox"/> Mandatory</p>																																		
<p>13. Annual reporting and recordkeeping hour burden</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:80%;">a. Number of respondents</td> <td style="text-align: right;">639</td> </tr> <tr> <td>b. Total annual responses</td> <td style="text-align: right;">1,905,700</td> </tr> <tr> <td>1. Percentages of these responses collected electronically</td> <td style="text-align: right;">0%</td> </tr> <tr> <td>c. Total annual hours requested</td> <td style="text-align: right;">312,774</td> </tr> <tr> <td>d. Current OMB inventory</td> <td style="text-align: right;">348,394</td> </tr> <tr> <td>e. Difference</td> <td style="text-align: right;">-35,620</td> </tr> <tr> <td>f. Explanation of difference</td> <td></td> </tr> <tr> <td>1. Program change</td> <td></td> </tr> <tr> <td>2. Adjustments</td> <td style="text-align: right;">-35,620</td> </tr> </table>	a. Number of respondents	639	b. Total annual responses	1,905,700	1. Percentages of these responses collected electronically	0%	c. Total annual hours requested	312,774	d. Current OMB inventory	348,394	e. Difference	-35,620	f. Explanation of difference		1. Program change		2. Adjustments	-35,620	<p>14. Annual reporting and recordkeeping cost burden (in thousands of dollars)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:80%;">a. Total annualized capital/startup costs</td> <td style="text-align: right;">0</td> </tr> <tr> <td>b. Total annual costs (O&M)</td> <td style="text-align: right;">0</td> </tr> <tr> <td>c. Total annualized cost requested</td> <td style="text-align: right;">0</td> </tr> <tr> <td>d. Current OMB inventory</td> <td style="text-align: right;">0</td> </tr> <tr> <td>e. Difference</td> <td style="text-align: right;">0</td> </tr> <tr> <td>f. Explanation of difference</td> <td></td> </tr> <tr> <td>1. Program change</td> <td></td> </tr> <tr> <td>2. Adjustment</td> <td style="text-align: right;">0</td> </tr> </table>	a. Total annualized capital/startup costs	0	b. Total annual costs (O&M)	0	c. Total annualized cost requested	0	d. Current OMB inventory	0	e. Difference	0	f. Explanation of difference		1. Program change		2. Adjustment	0
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<p>15. Purpose of information collection (Mark primary with "P" and all others that apply with "X")</p> <p>a. <input type="checkbox"/> Application for benefits</p> <p>b. <input type="checkbox"/> Program evaluation</p> <p>c. <input type="checkbox"/> General purpose statistics</p> <p>d. <input type="checkbox"/> Audit</p> <p>e. <input type="checkbox"/> Program planning or management</p> <p>f. <input type="checkbox"/> Research</p> <p>g. <input checked="" type="checkbox"/> Regulatory or compliance</p>	<p>16. Frequency of recordkeeping or reporting (check all that apply)</p> <p>a. <input checked="" type="checkbox"/> Recordkeeping</p> <p>b. <input checked="" type="checkbox"/> Third party disclosure</p> <p>c. <input type="checkbox"/> Reporting</p> <p>1. <input checked="" type="checkbox"/> On occasion</p> <p>2. <input type="checkbox"/> Weekly</p> <p>3. <input type="checkbox"/> Monthly</p> <p>4. <input type="checkbox"/> Quarterly</p> <p>5. <input type="checkbox"/> Semi-annually</p> <p>6. <input type="checkbox"/> Annually</p> <p>7. <input type="checkbox"/> Biennially</p> <p>8. <input type="checkbox"/> Other (describe) _____</p>																																		
<p>17. Statistical methods Does this information collection employ statistical methods?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>18. Agency contact (person who can best answer questions regarding the content of this submission)</p> <p>Name: Theda Kenney</p> <p>Phone: (202) 693-2222</p>																																		

19. Certification for Paperwork Reduction Act Submissions

On behalf of this Federal agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9.

NOTE: The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8 (b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of the topics, regarding the proposed collections of information, that the certification covers:

- (a) Is necessary for proper performance of the agency's functions and has practical utility;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It uses plain, coherent and unambiguous terminology that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention periods for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8 (b)(3)
 - (h) Why the information is being collected;
 - (ii) Use of information;
 - (iii) Burden estimate;
 - (iv) Nature of response (voluntary, required for a benefit, or mandatory);
 - (v) Nature and extent of confidentiality; and
 - (vi) Need to display currently valid OMB control number;
 - (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of the Instructions);
- (i) It uses effective and efficient statistical survey methodology; and,
- (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of these provisions, identify the item below and explain the reason in Item 18 of the Supporting Statement.

Agency Clearance Officer	Date
Todd R. Owen, OSHA Clearance Officer	
Signature of Senior Departmental Official or Designee	Date
Departmental Clearance Officer	

**SUPPORTING STATEMENT FOR
THE INFORMATION COLLECTION REQUIREMENTS OF
SUBPART A (“GENERAL PROVISIONS”) AND SUBPART B (“CONFINED
AND ENCLOSED SPACES AND OTHER DANGEROUS
ATMOSPHERES IN SHIPYARD EMPLOYMENT”) (29 CFR PART 1915)¹
OFFICE OF MANAGEMENT AND BUDGET (OMB)
CONTROL NO. 1218-0011 (January 2008)**

JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The main purpose of the Occupational Safety and Health Act (“OSH Act”) is to “assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources” (29 U.S.C. 651(b)). To achieve this objective, the OSH Act specifically authorizes “the development and promulgation of occupational safety and health standards” (29 U.S.C 651).

Section 6(b)(7) of the OSH Act states that “[a]ny standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure” (29 U.S.C. 655). The OSH Act also specifies that “[e]ach employer shall make, keep and preserve, and make available to the Secretary . . . such records . . . as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of the Act. . . .” (29 U.S.C. 657).

Under the authority granted by the OSH Act, the Occupational Safety and Health Administration (“OSHA” or “the Agency”) adopted 29 CFR part 1915, subparts A (“General Provisions”) and B (“Confined and Enclosed Spaces and Other Dangerous Atmospheres”) for shipyard employment. One provision in subpart A contains paperwork requirements (§1915.7). Section 1915.7(b)(2) specifies that shipyard employers must maintain a roster of designated competent persons (for inspecting and testing spaces covered by subpart B), or a statement that a Marine Chemist will perform these inspections and tests. Section 1915.7(d) requires employers: ensure that competent persons, Marine Chemists, and certified industrial hygienists (CIHs) make a record of each inspection and test they conduct, post the record near the covered space while work is in progress, and file the record for a specified period. In addition, employers must make the roster or statement and the inspection and test records available designated parties on request.

¹The purpose of this Supporting Statement is to analyze and describe the burden hours and costs associated with provisions of these subparts that contain paperwork requirements; this Supporting Statement does not provide information or guidance on how to comply with, or how to enforce, these provisions.

Subpart B consists of several standards governing entry into confined and enclosed spaces and other dangerous atmospheres in shipyard employment. These standards require that employers:

- Ensure that competent persons conduct inspections and atmospheric testing prior to employees entering a confined or enclosed space (§§1915.12(a)–(c));
- Warn employees not to enter hazardous spaces and other dangerous atmospheres (§1915.12 (a)-(c), 1915.16);
- Train employees who will be entering confined or enclosed spaces and certify that such training has been provided (§1915.12(d));
- Establish and train shipyard rescue teams or arrange for outside rescue teams and provide them with information (§1915.12(e));
- Ensure that one person on each rescue team has a valid first aid training certificate (§1915.12(e));
- Exchange information regarding hazards, safety rules, and emergency procedures concerning these spaces and atmospheres with other employers whose employees may enter these spaces and atmospheres (§1915.12(f));
- Ensure testing of certain spaces before cleaning and other cold work is started and as necessary thereafter while the operations are ongoing (§1915.13(b)(2) and (4));
- Post signs prohibiting ignition sources within or near a space that contains bulk quantities of flammable or combustible liquids or gases (1915.13(b)(10));
- Ensure that confined and enclosed spaces are tested before employees perform hot work in these spaces (§1915.14(a));
- Post warnings of testing conducted by competent persons and certificates of testing conducted by a Marine Chemist or Coast Guard authorized person in the immediate vicinity of the hot-work operation while the operation is in progress (§1915.14(a) and (b)); and
- Retain certificates of testing on file for at least three months after completing the operation (§1915.14(a)(2)).

Items 2 and 12 below describe in detail the specific information collection requirements of the subparts A and B.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

GENERAL PROVISIONS (PART 1915 SUBPART A)

Competent Person (§ 1915.7)

Designation (§ 1915.7(b)); and Recordkeeping (§ 1915.7(d))

Description of the requirements. Paragraph (b)(2) states that employers must designate one or more competent persons to perform required inspections and tests, unless a Marine Chemist will do so. The paragraph also requires that employers maintain a roster of designated competent persons or a statement that a Marine Chemist will perform all required inspections and tests. In addition, employers are to ensure that the rosters contain, at a minimum, the employer's name, the name of the designated competent persons, and the date the employee completed training as a competent person.² If requested, employers must make the roster or statement available to employees, their representatives, OSHA compliance officers, and representatives from the National Institute for Occupational Health and Safety (NIOSH).

Paragraph (d)(1) specifies that employers ensure that competent persons, Marine Chemists, and CIHs make a record of each inspection and test they conduct. The record of the inspection or test must contain the employer's location; time, date, location of the inspected space; the operations performed; test results; and any instructions. Paragraph (d)(2) requires that employers must post the record in the immediate vicinity of the inspected space while employees are working in the space. Employers must maintain the record in a file for at least three months after work in the space is complete. In addition, paragraph (d)(3) provides that employers make inspection and test records available, upon request, to employees, their representatives, OSHA compliance officers, and NIOSH.

Use and purpose of the requirements. Maintaining the required roster or statement as specified by paragraph (b) assures employees and OSHA that competent persons are performing the inspections and tests. The recordkeeping requirement under paragraph (d) provides important information regarding the inspection and test results. The information allows employers to implement atmospheric controls and other safety procedures to furnish employees with a safe and healthful workplace. It also permits employees and OSHA to determine whether the required testing has been done and the appropriateness of instructions, controls and procedures to protect employees entering those spaces. The inspection and test records may be useful to NIOSH for research purposes.

CONFINED AND ENCLOSED SPACES AND OTHER DANGEROUS ATMOSPHERES IN SHIPYARD EMPLOYMENT (PART 1915 SUBPART B)

Precautions and the Order of Testing Before Entering Confined and Enclosed Spaces and Other Dangerous Atmospheres (§ 1915.12)

²Subpart A contains no training requirements for competent persons.

Oxygen Content (§ 1915.12(a)(1) and (a)(2)); Flammable Atmospheres (§ 1915.12(b)(1) and (b)(2)); and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(c)(1), (c)(2), and (c)(3))

Description of the requirements. Before an employee initially enters a space, paragraph (a)(1) requires employers to ensure that a competent person visually inspects and tests it to determine its atmospheric oxygen content. Spaces subject to this requirement include:

- Sealed spaces such as, but not limited to, coated and closed up spaces and freshly painted non-ventilated spaces;
- Spaces that contain materials or residues of material that can cause it to become oxygen deficient; spaces and adjacent spaces that contain or have contained combustible or flammable liquids or gases, or that contain or previously contained toxic, corrosive, or irritant liquids, gases, or solids; and
- Fumigated spaces and adjacent spaces and spaces containing materials or residues that create an oxygen-deficient atmosphere.

If the space has an oxygen-deficient atmosphere, paragraph (a)(2) specifies that employers must label the space “Not Safe for Workers.” For oxygen-enriched spaces, the label must read “Not Safe for Workers--Not Safe for Hot Work.” Employers must ventilate these spaces with a sufficient volume and flow rate to maintain the oxygen content at or above 19.5 percent and below 22.0 percent by volume, at which point they may remove the warning label.

Under paragraph (b)(1), employers must have a competent person visually inspect a space or adjacent space for combustible or flammable liquids or gases. If such liquids or gases are present, the competent person must test the atmospheric concentration prior to employee entry. If the concentration is equal to or greater than 10 percent of the lower explosive limit (LEL), paragraph (b)(2) specifies that the employer must label the space “Not Safe for Workers--Not Safe for Hot Work.” Employers must provide ventilation at a volume and flow rate that maintains the concentration of flammable vapors below 10 percent of the LEL; the employer may remove the warning label when the vapors reach this level.

Paragraph (c)(1) mandates that if a space or adjacent space contains or previously contained liquids, gases, or solids that are toxic, corrosive, or cause irritation, employers have a competent person visually inspect the space to determine whether these substances are present. If so, the competent person must test the atmospheric concentration before an employee enters the space. Under paragraph (c)(2), employers must label the space “Not Safe for Workers” if the air concentration of these substances exceeds the permissible exposure level (PEL) specified by 29 CFR 1915, subpart Z (“Toxic and Hazardous Substances”), or is immediately dangerous to

life or health (IDLH).³ Employers must provide a sufficient ventilation volume and flow rate to maintain the atmospheric concentration at or below the PEL or below the IDLH if there is no PEL, after which they may remove the warning labels. Paragraph (c)(3) specified that if, after ventilation, the concentrations are not at or below the PEL or below the IDLH employers have a Marine Chemist or CIH retest the space until they can certify it as “Enter with Restrictions”⁴ or “Safe for Workers.”

Use and purpose of the requirements. The records of inspections and tests provide employers with important information on whether controls and other safety procedures are working effectively and adequately protecting employees who enter confined or enclosed spaces. The information also permits employees and OSHA to determine whether the required inspections and testing has been conducted and whether employees are protected. Employers use the labels to warn employees not to enter hazardous spaces or, for paragraph (c)(3), that a space is safe to enter with or without restrictions. In this regard, employers determine that a space is hazardous based on visual inspections and tests showing that the space or an adjacent space contains inadequate or excessive oxygen levels; combustible or flammable atmospheres; or toxic, corrosive, or irritant substances that can contaminate the atmosphere. Accordingly, the labels prevent death or serious injury and illness among employees by reducing their exposure to these atmospheric hazards.

Training of Employees Entering Confined and Enclosed Spaces or Other Dangerous Atmospheres (§ 1915.12(d))

Description of the requirements. Paragraphs (d)(1) through (d)(4) require employers to train employees who enter a confined and enclosed space or other dangerous atmospheres so they can perform their duties safely. Employees must receive the required training before they begin to work in the space, and if a change in operations or their duties results in a new hazard not previously addressed by the training. Employers must train employees to recognize the characteristics of the confined space; anticipate and be aware of the hazards that may be present in the space; recognize the adverse health effects that these hazards may cause; understand the physical signs and reactions that may result from exposure to these hazards; know what personal protective equipment is needed for safe entry in and exit from the space; and be aware of and know the proper use of barriers that may be needed to protect employees from the hazards. In addition, paragraph (d)(3) specifies that employees be trained to exit the space if the employer or employer representative orders an evacuation, an evacuation signal or alarm is activated, or the employee perceives there is a dangerous condition.

³Paragraph (b) of § 1915.11 (“Scope, application and definitions applicable to this subpart”) defines IDLH as “an atmosphere that poses an immediate threat to life or that is likely to result in acute or immediate severe health effects.”

⁴As defined under § 1915.11(b), the term “enter with restrictions” means “[denoting] a space where entry for work is permitted only if engineering controls, personal protective equipment, clothing, and time limitations are as specified by the Marine Chemist, Certified Industrial Hygienist, or the shipyard competent person.”

Under paragraph (d)(5), employers must certify that each employee received the required training. The certification is to contain the employee's name, the name of the certifier, and the certification date, and be available for inspection by OSHA compliance officers, NIOSH, and employees and their representatives.

Use and purpose of the requirements. Establishing and maintaining written certification of the training provided to each employee provides employers and OSHA compliance officers with an efficient means to verify that employees received the required training. Employees and their representatives may use the certification to determine whether the employer has provided and accurately recorded the required training, while NIOSH may review the certifications for research purposes.

Rescue Teams (§ 1915.12(e))

Description of the requirements. Under paragraph (e), employers must establish a shipyard rescue team, or arrange for an outside rescue team that will respond promptly to the employer's request for rescue service. For shipyard-based rescue teams, paragraph (e)(1) specifies that employers must provide and train team members to use personal protective equipment necessary to make a rescue, train each team member to perform his/her rescue functions, ensure that the team practices its skills at least once a year,⁵ and have at least one person on a team maintain current first aid certificate.⁶ If employers use an outside rescue team, paragraph (e)(2) requires them to inform the members of the team of the hazards they may encounter when called to rescue employees from confined and enclosed spaces or other dangerous atmospheres at the shipyard facility.

Use and purpose of the requirements. Employers use the first aid certificates to ensure that on-site rescue teams will be fully prepared to render first aid when needed. Members of the outside rescue team use the hazard information provided by employers to implement the training and identify the equipment necessary to prevent or control exposure to atmospheric hazards during rescue operations.

Exchanging Hazard Information Between Employers (§ 1915.12(f))

Description of the requirement. If an employer has employees who work in confined and enclosed spaces or other dangerous atmospheres, this paragraph requires the employer to inform other employers whose employees may enter the same space about the hazards, safety rules, and emergency procedures concerning those spaces and atmospheres.

Use and purpose of the requirement. Employers who receive the information use it to protect their employees from the specified hazards, comply with and inform their employees

⁵During practice drills, team members must do rescue simulations using mannequins and rescue equipment involving physical facilities that closely approximate the facilities from which they may make a rescue.

⁶Including maintenance of an airway, control of bleeding, maintenance of circulation, and cardiopulmonary resuscitation.

about the safety rules already established at the shipyard, and implement emergency procedures if necessary. Accordingly, the requirement prevents exposure of their employees to the hazards that are present in the space.

Cleaning and Other Cold Work (§ 1915.13)

Requirements for Performing Cleaning and Cold Work (§ 1915.13(b))

Description of the requirement. Paragraph (b)(2) requires that a competent person test the concentration of flammable, combustible, toxic, corrosive or irritant vapors within the confined or enclosed space prior to employees beginning cleaning or cold work. Paragraph (b)(3) specifies that continuous ventilation must be provided at volumes and flow rates that the concentration of flammable vapor is maintained below 10 percent of the LEL, and toxic, corrosive or irritant vapors are maintained within the PELs and below IDLH levels. Paragraph (b)(4) requires that the competent person also conduct testing as often as necessary during cleaning or cold work to ensure that air concentrations remain at the levels specified in paragraph (b)(3).

Paragraph (b)(7) requires that the competent person test ventilation discharge areas and other areas where discharge vapors may collect to determine whether those vapors are accumulating in concentrations that are hazardous to employees. If accumulations are hazardous, all work in the contaminated areas must be stopped until the vapors have dissipated or been removed.

Paragraph (b)(10) requires that employers post signs in a prominent location prohibiting sources of ignition within or near a space that previously contained flammable or combustible liquids or gases in bulk quantities. Employers must post these signs at the entrance to the space, in adjacent spaces, and in the open area adjacent to these spaces.

Use and purpose of the requirement. The records of the periodic atmospheric testing provide employers with important information on whether the atmospheric controls and safety procedures are working effectively and adequately protecting employees during cleaning and cold work operations. The information also helps employers determine whether more frequent testing may be necessary. The information permits employees and OSHA to determine whether the required periodic testing has been performed and whether the employer's controls and procedures are providing adequate protection. NIOSH may review the testing records for research purposes. Employers use the signs required by paragraph (b)(10) to prevent employees from bringing sources of ignition into areas that may contain the residues of flammable or combustible liquids or gases. Accordingly, the signs prevent inadvertent ignition of these residues, and death or serious injury among employees that could result from such ignition.

Hot Work (§ 1915.14)

Hot Work Requiring Testing by a Marine Chemist or Coast Guard Authorized Person (§ 1915.14(a)(1) and (a)(2))

Description of the requirements. Under paragraph (a)(1), employers must have a Marine Chemist or a U.S. Coast Guard authorized person test and certify a work area as safe for hot work if the area is in or on any of the following confined and enclosed spaces and other dangerous atmospheres, boundaries of spaces, or pipelines: Within, on, or immediately adjacent to spaces that contain or previously contained combustible or flammable liquids or gases or fuel tanks that contain or previously contained fuel; or pipelines, heating coils, pump fittings, or other accessories connected to spaces that contain or previously contained fuel.⁷ Under paragraph (a)(2), employers must post the certificate in the immediate vicinity of the hot-work operation while the operation is in progress. On completion of the operation, they must file the certificate for at least three months.

Use and purpose of the requirements. Employers use the certificates as an efficient means of verifying that employees can perform hot work in work areas that are adjacent to spaces containing, or that previously contained, flammable liquids or gases. Posting the certificates allows employers to notify employees of work areas that are safe for performing hot work. Posting the certificates also allows employees and OSHA to verify whether the required testing has been conducted and whether the proper controls and procedures are in place to safely conduct hot work operations. Retaining the certificates for at least three months verifies that the employer performed correct tests should an employee show symptoms of exposure to hazardous materials once the ship leaves the facility.

Hot Work Requiring Testing by a Competent Person (§ 1915.14(b)(1) and (b)(2))

Description of the requirements. Paragraph (b)(1) specifies that before starting any hot work in or on the following spaces or adjacent spaces or other dangerous atmospheres, employers must have a competent person test and determine that the space does not contain concentrations of flammable vapors equal to or greater than 10 percent of the LEL: Dry cargo holds; bilges; and engine rooms; boiler spaces; vessels and vessel sections; land-side confined and enclosed spaces; or other dangerous atmospheres not requiring certification by a Marine Chemist or Coast Guard authorized person. If the concentration of flammable vapors or gases is equal to or greater than 10 percent of the LEL in these or adjacent spaces, paragraph (b)(2) specifies that the employer must label the space “Not Safe for Hot Work.” Employers must provide ventilation in the space at a volume and flow rate that maintains the concentration of flammable vapors below 10 percent of the LEL, after which they may remove the warning label.

Use and purpose of the requirements. Employers use the test records as an efficient means of verifying that employees can perform hot work in the specific space. Posting the test results allows employers to notify employees of work areas that are safe for performing hot work. Posting the results also allows employees and OSHA to verify whether the required

⁷The provision specifies an exception for hot work performed on dry cargo, miscellaneous, or passenger vessels and land-side operations in spaces that meet the requirements for oxygen, flammability, and toxicity specified in §1915.12, but only if the flammable gases or liquids in the adjacent spaces have a flash point below 150° F (65.6° C) and the distance between these spaces and the hot work is at least 25 feet (7.62 m).

testing has been conducted and whether the proper controls and procedures are in place to safely conduct hot work operations. Employers use the labels to warn employees not to enter spaces containing hazardous levels of flammable vapors. Accordingly, the labels prevent death or serious injury and illness among employees by reducing their exposure to these atmospheric hazards.

Maintenance of Safe Conditions (§ 1915.15)

Alteration of Existing Conditions (§ 1915.15(b))

Description of the requirements. If a change occurs that may alter the atmospheric conditions within a tested confined or enclosed space or other dangerous atmosphere (e.g., opening a manhole or other closures, adjusting a valve that regulates the flow of hazardous materials), this provision requires employers to stop work in the affected space or work area. Work may resume only after visual inspection and retesting finds that the affected space or work area meets the requirements of the subpart.

Use and purpose of the requirements. The discussions under §§ 1915.12, 1915.13, and 1915.14 above explain the use and purpose of the paperwork requirements specified by these paragraphs.

Tests to Maintain the Conditions of a Marine Chemist's or Coast Guard Authorized Person's Certificates (§ 1915.15(c))

Description of the requirements. This paragraph requires employers ensure that a competent person visually inspects and tests each space certified as "Safe for Workers" or "Safe for Hot Work" as often as necessary to ensure that the atmospheric conditions in the space conform to the conditions established by the certificate.

Use and purpose of the requirements. See the discussions under §§ 1915.12(c)(3) and 1915.14(a)(1) above for an explanation for the certification requirements. In addition, the records of periodic inspections and testing allow employers to determine whether testing is being done at appropriate intervals and whether more frequent testing may be necessary.

Change in the Conditions of a Marine Chemist's or Coast Guard Authorized Person's Certificates (§ 1915.15(d))

Description of the requirement. If a competent person finds that the atmospheric conditions in a certified space fail to meet the applicable requirements of the subpart, employers must stop work in the space until a Marine Chemist or Coast Guard authorized person retests the space and issues a new certificate.

Use and purpose of the requirement. The discussion under § 1915.14(a) above describes the use and purpose of the certificates required by this provision.

Tests to Maintain a Competent Person's Findings (§ 1915.15(e)); and Changes in the Conditions Determined by a Competent Person's Findings (§ 1915.15(f))

Description of the requirements. Paragraph (e) specifies that after a competent person conducts the required initial visual inspection and tests and determines that a space is safe for employee entry, employers must ensure that the required atmospheric conditions are being maintained by having a competent person continue to test and visually inspect the space as often as necessary. Paragraph (f) specifies that if the atmospheric conditions do not meet the requirements of the subpart, employers must stop work in the space until conditions in the space are brought into compliance.

Use and purpose of the requirements. See the discussions of §§ 1915.12, 1915.13, and 1915.14 above for a description of the use and purpose of the paperwork requirements. In addition, the records of periodic inspections and testing allow employers to determine whether testing is being done at appropriate intervals and whether more frequent testing may be necessary.

Warning Signs and Labels (§ 1915.16)

This paragraph establishes protocols for preparing the sign and labels required in this subpart. It does not impose burden hours.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

Employers may use automated, electronic, mechanical, or other technological collection techniques, or other forms of information technology (e.g., electronic submission of responses), when establishing and maintaining the required records. The Agency wrote the paperwork requirements of subparts A and B in performance-oriented language (i.e., in terms of what data to collect, not how to record the data).

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

The requirements to collect and maintain information are specific to each employer and employee involved, and no other source or agency duplicates these requirements or can make the required information available to OSHA (i.e., the required information is available only from employers).

5. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-I), describe any methods used to minimize burden.

The information collection requirements of subparts A and B do not have a significant impact on a substantial number of small entities.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

The Agency believes that the information collection frequencies required by subparts A and B are the minimum frequencies necessary to effectively monitor the exposure and health status of shipyard employees who work in confined and enclosed spaces and other dangerous atmospheres, and, thereby, fulfill its mandate “to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources” as specified by the OSH Act (29 U.S.C. 651). Accordingly, if employers do not perform the required information collections, or delay in providing this information, shipyard employees will have an increased probability of entering spaces containing hazardous atmospheres, resulting in illness, injury, and death.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- **Requiring respondents to report information to the agency more often than quarterly;**
- **Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- **Requiring respondents to submit more than an original and two copies of any document;**
- **Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;**
- **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **Requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- **That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

No special circumstances exist that require employers to collect information in the manner or using the procedures specified by this item. The information collection requirements are consistent with the guidelines provided in 5 CFR 1320.5.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years, even if the collection-of-information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3506(c)(2)(A)), OSHA will publish a notice in the Federal Register requesting public comment on its proposed extension of the information collection requirements specified in subparts A and B of 29 CFR part 1915. This notice is part of a preclearance consultation program intended to provide those interested parties the opportunity to comment on OSHA's request for an extension by the Office of Management and Budget (OMB) of a previous approval of the information collection requirements found in the above subparts.

9. Explain any decision to provide any payments or gift to respondents, other than reenumeration of contractors or grantees.

The Agency will not provide payments or gifts to the respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

The paperwork requirements in Subparts A and B do not involve confidential information.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the Agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

None of the provisions in subparts A and B require sensitive information.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- **Show the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burdens, and explain the reasons for the variance. General estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burdens estimates for each form and aggregate the hour burden in Item 13 of OMB Form 83-1.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or**

paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 14.

Burden-Hour and Cost Determinations

OSHA estimates that there are 639 establishments in the shipyard industry employing 86,746 employees. This estimate is taken from the Executive Summary of the Preliminary Economic and Initial Regulatory Flexibility Screening Analysis contained in the preamble to the proposed rule on General Working Conditions in Shipyard Employment (72 FR 72452, December 20, 2007). When the Agency published the final rule on Confined and Enclosed and Other Dangerous Atmospheres in 1994, the Regulatory Impact Analysis (RIA) estimated that 1 percent of shipyard employees are qualified as competent persons and 75 percent enter hazardous spaces covered by Subpart B (i.e., “covered employees”) (59 FR 37816, July 25, 1994). For purposes of this supporting statement, the Agency still believes these percentages are accurate; thus, the Agency estimates that there are now 867 employees qualified as competent persons and that 65,060 enter hazardous spaces. In addition, the Agency used the following wage rates⁸ in making the cost determinations for this ICR:

· Supervisory Production Worker	\$29.46
· Shipyard Production Worker/Competent Person	\$23.02
· Secretary	\$20.96

The following sections summarize the burden hour and cost determinations for the information collection requirements specified by subparts A and B.

GENERAL PROVISIONS (PART 1915 SUBPART A)

Competent Person (§ 1915.7)

Designation (§ 1915.7(b)); and Recordkeeping (§ 1915.7(d))⁹

The Agency estimates that a supervisory production worker spends 10 minutes (.17 hour) per year updating, maintaining, and posting¹⁰ either the required roster or statement at each shipyard. The estimated annual total burden hours and cost resulting from this paperwork requirement are:

Burden Hours: 639 establishments x 1 roster/statement per year x .17 hour = 109 hours
Cost: 109 hours x \$29.46 = \$3,211

⁸Source: *May 2006 National Occupational Employment and Wage Estimates Employer Costs*, 2007, U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics. Wage rates include fringe benefits of 29 percent.

⁹OSHA provides the estimated burden hours and cost for § 1915.7(d) under the inspection and testing requirements of subpart B.

¹⁰Posting is the most cost-effective method of making the information available to the parties designated under § 1915.7(b)(2)(ii).

CONFINED AND ENCLOSED SPACES AND OTHER DANGEROUS ATMOSPHERES IN SHIPYARD EMPLOYMENT (SUBPART B)

(A) Precautions and the Order of Testing Before Entering Confined and Enclosed Spaces and Other Dangerous Atmospheres (§ 1915.12)

Oxygen Content (§ 1915.12(a)(1) and (a)(2)); Flammable Atmospheres (§ 1915.12(b)(1) and (b)(2)); and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(c)(1), (c)(2), and (c)(3))

OSHA assumes that, on average, each shipyard implements about 10 visual inspection and testing protocols per day under these provisions. The estimate includes initial inspection and testing, periodic retesting to maintain safe conditions, and retesting because a space has been found to be unsafe. For the entire industry this totals 1,591,110 protocols for a 249-day work year (i.e., 10 protocols x 639 establishments x 249 days). Because the inspections and testing are performed by trained and experienced competent persons who are familiar with the workplace and procedures, the Agency estimates that a competent person takes 10 minutes (.17 hour) to complete each protocol (i.e., to inspect and test a space), label the space as necessary,¹¹ and generate, post, file, and disclose the protocol record according to § 1915.7(d). Therefore, the total annual burden hours and cost of these provisions are:

Burden Hours: 1,591,110 protocols x .17 hour = 270,489 hours

Cost: 270,489 hours x \$23.02 = \$6,226,657

Training of Employees Entering Confined and Enclosed Spaces or Other Dangerous Atmospheres and Training Certification Records (§ 1915.12(d))

The training requirements are written in performance-oriented language and, therefore, the Agency does not regard the training requirements as a collection of information under PRA-95; thus, OSHA is taking no burden for the training activity. However, this provision requires that employers maintain training certification records and make them available for review by OSHA compliance officers (see (E) below), NIOSH, and employees and their representatives. The Agency estimates that 10% (65,060 x 10% = 6,506) of the covered employees or their representatives request access to the training certification records annually. Based on Bureau of Labor Statistic data,¹² it is estimated that there was a 3.7 percent turnover rate; thus, the Agency is using this rate to replace employees who may leave and require initial training (65,060 x 3.7% = 2,407). In addition, based on staff expertise, the Agency does not believe many employees would need training resulting from changes in operations or in an employee's duties that present a hazard that the employee has previously not been trained. OSHA assumes 1% of covered employees require new assignment training annually (65,060 x 1% = 651). The Agency estimates that a supervisor takes two minutes (.03 hour) to disclose the certification records to an

¹¹The Agency is taking no burden for developing these labels because OSHA provides the information that must be on the labels. (See "Controlling Paperwork Burden on the Public," 5 CFR 1320.3(c)(2).)

¹²*Job Openings and Labor Turnover, November 2007*, Bureau of Labor Statistics, Washington, DC.

employee/representative. Additionally, employers must generate the certification records for new hires and those employees requiring new assignment training which the Agency estimates will take a supervisor 2 minutes (.03 hour). Further, the Agency estimates that a secretary takes one minute (.02 hour) to maintain the training certification records for each covered employee, new hire and those requiring new assignment training. Accordingly, the estimated total yearly burden hours and cost associated with this availability requirement are:

Burden Hours: 6,506 employee-related requests x .03 hour to disclose = 195-
Cost: 195 hours x \$29.46 = \$5,745

Burden Hours: (2,407 + 651) = 3,058 new certifications x .03 hour to generate = 92
Cost: 92 hours x \$29.46 = \$2,710

Burden Hours: (65,060 existing certifications + 651 new certifications = 65,711
certifications
65,711 certifications x .02 hour to maintain = 1,314
Cost: 1,314 hours x \$20.96 = \$27,541

Rescue Teams (§ 1915.12(e))

OSHA believes that employers, as a usual and customary practice, establish a shipyard rescue team or arrange for an outside rescue team. Such usual and customary activities include employers knowing which employees have current certification in basic first aid as required by paragraph (e)(2). Employers are aware of current certification through usual and customary periodic discussions with employees concerning their job responsibilities. Accordingly, the paperwork requirements associated with this provision are not subject to the implementing rules and guidelines of PRA-95.

Exchanging Hazard Information Between Employers (§ 1915.12(f))

The Agency considers it a usual and customary practice for employers who have employees working in a space covered by this paragraph to inform other employers whose employees may enter the same space about the hazards, safety rules, and emergency procedures concerning those spaces and atmospheres. Therefore, OSHA is not taking burden hours or cost for this paperwork requirement.

(B) Cleaning and Other Cold Work (§ 1915.13)

Testing Requirements for Cleaning and Cold Work Spaces and Ventilation Discharge Areas (§1915.13(b)(2), (b)(4) and (b)(7))

These provisions duplicate the requirements of § 1915.12(b)(1) and (b)(2); see “Oxygen Content, Flammable Atmospheres, and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(a)(1), (a)(2), (b)(1), (b)(2), (c)(1), (c)(2), and (c)(3)” above for the estimated burden hours and cost associated with these requirements.

Requirements for Performing Cleaning and Cold Work (§ 1915.13(b)(10))

Based on staff expertise, OSHA estimates that employers will post the required signs during 5 percent of the 1,591,110 protocols (79,556) conducted annually and that a competent person spends 10 minutes (.17 hour) in determining concentrations of flammable, combustible, toxic, corrosive or irritant vapors and to post a sign at each of the designated locations. Thus, the total annual burden hours and cost estimated for this posting requirement are:

Burden hours: 79,556 spaces x .17 hour = 13,525 hours

Cost: 13,525 hours x \$23.02 = \$311,346

(C) Hot Work (§ 1915.14)

Hot Work Requiring Testing by a Marine Chemist or Coast Guard Authorized Person (§ 1915.14(a)(1) and (a)(2))

For over 30 years, the shipyard industry has been complying with National Fire Protection Association Standard 306 (“Standard for the Control of Gas Hazards on Vessels”), which contains hot-work testing and certification requirements at least as burdensome as paragraphs 1915.14(a)(1) and (a)(2) of subpart B. Accordingly, OSHA believes that it is a usual and customary practice among employers in the shipyard industry to have a Marine Chemist or a U.S. Coast Guard authorized person test and certify the specified work areas as safe for hot work, post the certificates in the immediate vicinity of the hot-work operation while the operation is in progress, and then file the certificates for at least three months. Therefore, the Agency is taking no burden hours or costs for these provisions.

Hot Work Requiring Testing by a Competent Person (§ 1915.14(b)(1) and (b)(2))

These provisions duplicate the requirements of § 1915.12(b)(1) and (b)(2); see “Oxygen Content, Flammable Atmospheres, and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(a)(1), (a)(2), (b)(1), (b)(2), (c)(1), (c)(2), and (c)(3))” above for the estimated burden hours and cost associated with these requirements.

(D) Maintenance of Safe Conditions (§ 1915.15)

Alteration of Existing Conditions (§ 1915.15(b)); Tests to Maintain the Conditions of a Marine Chemist’s or Coast Guard Authorized Person’s Certificates (§ 1915.15(c)); Change in the Conditions of a Marine Chemist’s or Coast Guard Authorized Person’s Certificates (§ 1915.15(d)); Tests to Maintain a Competent Person’s Findings (§ 1915.15(e)); and Changes in the Conditions Determined by a Competent Person’s Findings (§ 1915.15(f))

These provisions require employers, under specific conditions, to have a competent person reinspect and retest spaces according to the requirements of §§ 1915.12, 1915.13, and 1915.14. OSHA estimates that employers must repeat about 10 percent (159,111) of the 1,591,110

protocols conducted annually, and that it takes a competent person 10 minutes (.17 hour) to repeat each protocol. Therefore, the estimated total yearly burden hours and cost associated with these requirements are:

Burden hours: 159,111 protocols x .17 hour = 27,049 hours

Cost: 27,049 hours x \$23.02 = \$622,668

(E) Warning Signs and Labels (§ 1915.16)

This paragraph establishes protocols for preparing the sign and labels required in previous paragraphs. It does not impose burden hours.

(F) Disclosure of Inspection, Testing and Training Certification Records

OSHA believes that approximately 10 establishments covered by the Standard¹³ may be subject to an OSHA inspection and the employer may be required to disclose training certification records annually (see Item 14 below). OSHA estimates that it will take a supervisory shipyard production worker 2 minutes (.03 hour) to disclose inspection and testing records and 2 minutes (.03) to disclose training certification records, for a total of 4 (.07) minutes.

Burden hours: 9 inspections x .07 hour = 1 hour (rounded)

Cost: 1 burden hour x \$29.46 = \$29

13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and

The cost determinations made under Item 12 account for the total annual cost burden to respondents or recordkeepers resulting from these collection of information requirements.

14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 in a single table.

OSHA estimates that a compliance officer (GS-12, step 5), with an hourly wage rate of \$37.89, spends about 5 minutes (.08 hour) during an inspection reviewing the documents required by the Standard. The Agency determines that its compliance officers will conduct an estimated 10 inspections during each year covered by this ICR (see (E)) above. OSHA considers other expenses, such as equipment, overhead, and support staff salaries, to be normal operating expenses that would occur without the paperwork requirements specified by the Standard. Therefore, the total cost of these paperwork requirements to the Federal government is:

¹³OSHA estimated the number of inspections by multiplying OSHA's inspection rate (1.4%) by the number of establishments covered by this ICR (i.e., 639 establishments 1.4% = 9 inspections).

Cost: 9 inspections x .08 hour x \$37.89 = \$27

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 per OMB Form 83-I.

OSHA is proposing to decrease the existing burden hour estimate for the collection of information requirements specified by subparts A and B of 29 CFR part 1915. In this regard, the Agency is proposing to decrease the current burden hour estimate from 348,394 hours to 312,774 hours, a total decrease of 35,620 hours. Table 1 explains the proposed adjustment increase.

16. For collections of information whose results will be published, outline plans for tabulation, and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection information, completion of report, publication dates, and other actions.

OSHA will not publish the information collected under subparts A and B.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be appropriate.

No forms are available for the Agency to display the expiration date.

18. Explain each exception to the certification statement identified in Item 19 of OMB 83-I.

OSHA is not seeking an exception to the certification statement specified by Item 19 of OMB 83-I.

Table 1: Requested Burden our Adjustments

Information Collection Requirement	Current Burden Hours	Requested Burden Hours	Adjustment	Cost Under Item 12	Responses	Explanation of Adjustment
<p><i>(SUBPART A)</i></p> <p>Competent Person (§ 1915.7)</p> <p>Designation (§ 1915.7(b)); and Recordkeeping</p>	122	109	-13	\$3,311	639	The preamble to the proposed rule on General Working Conditions in Shipyard Employment (72 FR 72452) indicates a decrease in the number of establishments from 717 to 639; thus, resulting in a decrease in burden hours.
<p><i>(SUBPART B)</i></p> <p>(A) Precautions and the Order of Testing Before Entering Confined and Enclosed Spaces and Other Dangerous Atmospheres (§ 1915.12)</p> <p>Oxygen Content (§ 1915.12(a)(1) and (a)(2)); Flammable Atmospheres (§ 1915.12(b)(1) and (b)(2)); and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(c)(1), (c)(2), and (c)(3))</p>	303,506	270,489	-33,017	\$6,226,657	1,591,110	The preamble to the proposed rule on General Working Conditions in Shipyard Employment (72 FR 72452) indicates a decrease in the number of establishments from 717 to 639; thus, resulting in a decrease in burden hours.

Information Collection Requirement	Current Burden Hours	Requested Burden Hours	Adjustment	Cost Under Item 12	Responses	Explanation of Adjustment
Training of Employees Entering Confined and Enclosed Spaces or Other Dangerous Atmospheres and Training Certification Records (§ 1915.12(d))	220	195	-25	\$5,745	6,506	The preamble to the proposed rule on General Working Conditions in Shipyard Employment (72 FR 72452) indicates a decrease in the number of covered employees.
	97	92	-5	\$2,710	3,058	
	1,482	1,314	-168	\$27,541	65,711	
Rescue Teams (§ 1915.12(e))	0	0	0	0	0	No change.
Exchanging Hazard Information Between Employers (§ 1915.12(f))	0	0	0	0	0	No change.
(B) Cleaning and Other Cold Work (§1915.13) Testing Requirements for Cleaning and Cold Work Spaces and Ventilation Discharge Areas (§1915.13(b)(2), (b)(4) and (b)(7))	0	0	0	0	0	These provisions duplicate the requirements of § 1915.12(b)(1) and (b)(2); see “Oxygen Content, Flammable Atmospheres, and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(a)(1), (a)(2), (b)(1), (b)(2), (c)(1), (c)(2), and (c)(3)” above for the estimated burden hours and cost associated with these requirements.
Requirements for Performing Cleaning and Cold Work (§ 1915.13(b)(10))	14,322	13,525	-797	\$311,346	79,556	As stated previously, the Agency has decreased the number of establishments; thus, resulting in a decrease in burden hours

Information Collection Requirement	Current Burden Hours	Requested Burden Hours	Adjustment	Cost Under Item 12	Responses	Explanation of Adjustment
Hot Work Requiring Testing by a Competent Person (§ 1915.14(b)(1) and (b)(2))	0	0	0	0	0	These provisions duplicate the requirements of § 1915.12(b)(1) and (b)(2); see “Oxygen Content, Flammable Atmospheres, and Toxic, Corrosive, Irritant or Fumigated Atmospheres and Residues (§ 1915.12(a)(1), (a)(2), (b)(1), (b)(2), (c)(1), (c)(2), and (c)(3))” above for the estimated burden hours and cost associated with these requirements.
<i>(D) Maintenance of Safe Conditions (§ 1915.15)</i>						
Alteration of Existing Conditions (§ 1915.15(b)); Tests to Maintain the Conditions of a Marine Chemist’s or Coast Guard Authorized Person’s Certificates (§ 1915.15(c)); Change in the Conditions of a Marine Chemist’s or Coast Guard Authorized Person’s Certificates (§ 1915.15(d)); Tests to Maintain a Competent Person’s Findings (§ 1915.15(e)); and Changes in the Conditions Determined by a Competent Person’s Findings (§ 1915.15(f))	28,644	27,049	-1,595	\$622,668	159,111	The adjustment decrease is a result of a decrease in the number of establishments.
<i>(E) Warning Signs and Labels (§ 1915.16)</i>	0	0	0	0	0	No change.

Information Collection Requirement	Current Burden Hours	Requested Burden Hours	Adjustment	Cost Under Item 12	Responses	Explanation of Adjustment
<i>(F) Disclosure of Inspection, Testing Records and Training Certification Records</i>	1	1	0	\$29	9	No change.
TOTALS	348,394	312,774	-35,620	\$7,200,007	1,905,700	

SEC. 2. Congressional Findings and Purpose

29 USC 651

(a) The Congress finds that personal injuries and illnesses arising out of work situations impose a substantial burden upon, and are a hindrance to, interstate commerce in terms of lost production, wage loss, medical expenses, and disability compensation payments.

(b) The Congress declares it to be its purpose and policy, through the exercise of its powers to regulate commerce among the several States and with foreign nations and to provide for the general welfare, to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources --

(1) by encouraging employers and employees in their efforts to reduce the number of occupational safety and health hazards at their places of employment, and to stimulate employers and employees to institute new and to perfect existing programs for providing safe and healthful working conditions; (2) by providing that employers and employees have separate but dependent responsibilities and rights with respect to achieving safe and healthful working conditions;

(3) by authorizing the Secretary of Labor to set mandatory occupational safety and health standards applicable to businesses affecting interstate commerce, and by creating an Occupational Safety and Health Review Commission for carrying out adjudicatory functions under the Act;

(4) by building upon advances already made through employer and employee initiative for providing safe and healthful working conditions;

(5) by providing for research in the field of occupational safety and health, including the psychological factors involved, and by developing innovative methods, techniques, and approaches for dealing with occupational safety and health problems;

(6) by exploring ways to discover latent diseases, establishing causal connections between diseases and work in environmental conditions, and conducting other research relating to health problems, in recognition of the fact that occupational health standards present problems often different from those involved in occupational safety;

(7) by providing medical criteria which will assure insofar as practicable that no employee will suffer diminished health, functional capacity, or life expectancy as a result of his work experience;

(8) by providing for training programs to increase the number and competence of personnel engaged in the field of occupational safety and health; affecting the OSH Act since its passage in 1970 through January 1, 2004.

(9) by providing for the development and promulgation of occupational safety and health standards;

(10) by providing an effective enforcement program which shall include a prohibition against giving advance notice of any inspection and sanctions for any individual violating this prohibition;

(11) by encouraging the States to assume the fullest responsibility for the administration and enforcement of their occupational safety and health laws by providing grants to the States to assist in identifying their needs and responsibilities in the area of occupational safety and health, to develop plans in accordance with the provisions of this Act, to improve the administration and enforcement of State occupational safety and health laws, and to conduct experimental and demonstration projects in connection therewith;

(12) by providing for appropriate reporting procedures with respect to occupational safety and health which procedures will help achieve the objectives of this Act and accurately describe the nature of the occupational safety and health problem;

(13) by encouraging joint labor-management efforts to reduce injuries and disease arising out of employment.

6. Occupational Safety and Health Standards

29 USC 655:

(a) Without regard to chapter 5 of title 5, United States Code, or to the other subsections of this section, the Secretary shall, as soon as practicable during the period beginning with the effective date of this Act and ending two years after such date, by rule promulgate as an occupational safety or health standard any national consensus standard, and any established Federal standard, unless he determines that the promulgation of such a standard would not result in improved safety or health for specifically designated employees. In the event of conflict among any such standards, the Secretary shall promulgate the standard which assures the greatest protection of the safety or health of the affected employees.

(b) The Secretary may by rule promulgate, modify, or revoke any occupational safety or health standard in the following manner:

(1) Whenever the Secretary, upon the basis of information submitted to him in writing by an interested person, a representative of any organization of employers or employees, a nationally recognized standards-producing organization, the Secretary of Health and Human Services, the National Institute for Occupational Safety and Health, or a State or political subdivision, or on the basis of information developed by the Secretary or otherwise available to him, determines that a rule should be promulgated in order to serve the objectives of this Act, the Secretary may request the recommendations of an advisory committee appointed under section 7 of this Act. The Secretary shall provide such an advisory committee with any proposals of his own or of the Secretary of Health and Human Services, together with all pertinent factual information developed by the Secretary or the Secretary of Health and Human Services, or otherwise available, including the results of research, demonstrations, and experiments. An advisory committee shall submit to the Secretary its recommendations regarding the rule to be promulgated within ninety days from the date of its appointment or within such longer or shorter period as may be prescribed by the Secretary, but in no event for a period which is longer than two hundred and seventy days.

(2) The Secretary shall publish a proposed rule promulgating, modifying, or revoking an occupational safety or health standard in the Federal Register and shall afford interested persons a period of thirty days after publication to submit written data or comments. Where an advisory committee is appointed and the Secretary determines that a rule should be issued, he shall publish the proposed rule within sixty days after the submission of the advisory committee's recommendations or the expiration of the period prescribed by the Secretary for such submission.

(3) On or before the last day of the period provided for the submission of written data or comments under paragraph (2), any interested person may file with the Secretary written objections to the proposed rule, stating the grounds therefore and requesting a public hearing on such objections. Within thirty days after the last day for filing such objections, the Secretary shall publish in the Federal Register a notice specifying the occupational safety or health standard to which objections have been filed and a hearing requested, and specifying a time and place for such hearing.

(4) Within sixty days after the expiration of the period provided for the submission of written data or comments under paragraph (2), or within sixty days after the completion of any hearing held under paragraph (3), the Secretary shall issue a rule promulgating, modifying, or revoking an occupational safety or health standard or make a determination that a rule should not be issued. Such a rule may contain a provision delaying its effective date for such period (not in excess of ninety days) as the Secretary determines may be necessary to insure that affected employers and employees will be informed of the existence of the standard and of its terms and that employers affected are given an opportunity to familiarize themselves and their employees with the existence of the requirements of the standard.

(5) The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.

(6) (A) Any employer may apply to the Secretary for a temporary order granting a variance from a standard or any provision thereof promulgated under this section. Such temporary order shall be granted only if the employer files an application which meets the requirements of clause (B) and establishes

that --

(i) he is unable to comply with a standard by its effective date because of unavailability of professional or technical personnel or of materials and equipment needed to come into compliance with the standard or because necessary construction or alteration of facilities cannot be completed by the effective date,

(ii) he is taking all available steps to safeguard his employees against the hazards covered by the standard, and

(iii) he has an effective program for coming into compliance with the standard as quickly as practicable.

Any temporary order issued under this paragraph shall prescribe the practices, means, methods, operations, and processes which the employer must adopt and use while the order is in effect and state in detail his program for coming into compliance with the standard. Such a temporary order may be granted only after notice to employees and an opportunity for a hearing: *Provided*, That the Secretary may issue one interim order to be effective until a decision is made on the basis of the hearing. No temporary order may be in effect for longer than the period needed by the employer to achieve

compliance with the standard or one year, whichever is shorter, except that such an order may be renewed not more than twice (I) so long as the requirements of this paragraph are met and (II) if an application for renewal is filed at least 90 days prior to the expiration date of the order. No interim renewal of an order may remain in effect for longer than 180 days.

(B) An application for temporary order under this paragraph (6) shall contain:

(i) a specification of the standard or portion thereof from which the employer seeks a variance,

(ii) a representation by the employer, supported by representations from qualified persons having firsthand knowledge of the facts represented, that he is unable to comply with the standard or portion thereof and a detailed statement of the reasons therefor,

(iii) a statement of the steps he has taken and will take (with specific dates) to protect employees against the hazard covered by the standard,

(iv) a statement of when he expects to be able to comply with the standard and what steps he has taken and what steps he will take (with dates specified) to come into compliance with the standard, and

(v) a certification that he has informed his employees of the application by giving a copy thereof to their authorized representative, posting a statement giving a summary of the application and specifying where a copy may be examined at the place or places where notices to employees are normally posted, and by other appropriate means.

A description of how employees have been informed shall be contained in the certification. The information to employees shall also inform them of their right to petition the Secretary for a hearing.

(C) The Secretary is authorized to grant a variance from any standard or portion thereof whenever he determines, or the Secretary of Health and Human Services certifies, that such variance is necessary to permit an employer to participate in an experiment approved by him or the Secretary of Health and Human Services designed to demonstrate or validate new and improved techniques to safeguard the health or safety of workers.

(7) Any standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure. Where appropriate, such standard shall also prescribe suitable protective equipment and control or technological procedures to be used in connection with such hazards and shall provide for monitoring or measuring employee exposure at such locations and intervals, and in such manner as may be necessary for the protection of employees. In addition, where appropriate, any such standard shall prescribe the type and frequency of medical examinations or other tests which shall be made available, by the employer or at his cost, to employees exposed to such hazards in order to most effectively determine whether the health of such employees is adversely affected by such exposure. In the event such medical examinations are in the nature of research, as determined by the Secretary of

Health and Human Services, such examinations may be furnished at the expense of the Secretary of Health and Human Services. The results of such examinations or tests shall be furnished only to the Secretary or the Secretary of Health and Human Services, and, at the request of the employee, to his physician. The Secretary, in consultation with the Secretary of Health and Human Services, may by rule promulgated pursuant to section 553 of title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning, monitoring or measuring, and medical examinations, as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulgation of the relevant standard.

(8) Whenever a rule promulgated by the Secretary differs substantially from an existing national consensus standard, the Secretary shall, at the same time, publish in the Federal Register a statement of the reasons why the rule as adopted will better effectuate the purposes of this Act than the national consensus standard.

(c) (1) The Secretary shall provide, without regard to the requirements of chapter 5, title 5, United States Code, for an emergency temporary standard to take immediate effect upon publication in the Federal Register if he determines

--

(A) that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and

(B) that such emergency standard is necessary to protect employees from such danger.

(2) Such standard shall be effective until superseded by a standard promulgated in accordance with the procedures prescribed in paragraph (3) of this subsection.

(3) Upon publication of such standard in the Federal Register the Secretary shall commence a proceeding in accordance with section 6 (b) of this Act, and the standard as published shall also serve as a proposed rule for the proceeding. The Secretary shall promulgate a standard under this paragraph no later than six months after publication of the emergency standard as provided in paragraph (2) of this subsection.

(d) Any affected employer may apply to the Secretary for a rule or order for a variance from a standard promulgated under this section. Affected employees shall be given notice of each such application and an opportunity to participate in a hearing. The Secretary shall issue such rule or order if he determines on the record, after opportunity for an inspection where appropriate and a hearing, that the proponent of the variance has demonstrated by a preponderance of the evidence that the conditions, practices, means, methods, operations, or processes used or proposed to be used by an employer will provide employment and places of employment to his employees which are as safe and healthful as those which would prevail if he complied with the standard. The rule or order so issued shall prescribe the conditions the employer must maintain, and the practices, means, methods, operations, and

processes which he must adopt and utilize to the extent they differ from the standard in question. Such a rule or order may be modified or revoked upon application by an employer, employees, or by the Secretary on his own motion, in the manner prescribed for its issuance under this subsection at any time after six months from its issuance.

(e) Whenever the Secretary promulgates any standard, makes any rule, order, or decision, grants any exemption or extension of time, or compromises, mitigates, or settles any penalty assessed under this Act, he shall include a statement of the reasons for such action, which shall be published in the Federal Register.

(f) Any person who may be adversely affected by a standard issued under this section may at any time prior to the sixtieth day after such standard is promulgated file a petition challenging the validity of such standard with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such standard. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary. The filing of such petition shall not, unless otherwise ordered by the court, operate as a stay of the standard. The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record considered as a whole.

(g) In determining the priority for establishing standards under this section, the Secretary shall give due regard to the urgency of the need for mandatory safety and health standards for particular industries, trades, crafts, occupations, businesses, workplaces or work environments. The Secretary shall also give due regard to the recommendations of the Secretary of Health and Human Services regarding the need for mandatory standards in determining the priority for establishing such standards.

SEC. 8. Inspections, Investigations, and Recordkeeping

(a) In order to carry out the purposes of this Act, the Secretary, upon presenting appropriate credentials to the owner, operator, or agent in charge, is authorized -- 29 USC 657

(1) to enter without delay and at reasonable times any factory, plant, establishment, construction site, or other area, workplace or environment where work is performed by an employee of an employer; and

(2) to inspect and investigate during regular working hours and at other reasonable times, and within reasonable limits and in a reasonable manner, any such place of employment and all pertinent conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such employer, owner, operator, agent or employee.

(b) In making his inspections and investigations under this Act the Secretary may require the attendance and testimony of witnesses and the production of evidence under oath. Witnesses shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of a contumacy, failure, or refusal of any person to obey such an order, any district court of the United States or the United States courts of any territory or possession, within the jurisdiction of which such person is found, or resides or transacts business, upon the application by the Secretary, shall have jurisdiction to issue to such person an order requiring such person to appear to produce evidence if, as, and when so ordered, and to give testimony relating to the matter under investigation or in question, and any failure to obey such order of the court may be punished by said court as a contempt thereof.

(c) (1) Each employer shall make, keep and preserve, and make available to the Secretary or the Secretary of Health and Human Services, such records regarding his activities relating to this Act as the Secretary, in cooperation with the Secretary of Health and Human Services, may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the causes and prevention of occupational accidents and illnesses. In order to carry out the provisions of this paragraph such regulations may include provisions requiring employers to conduct periodic inspections. The Secretary shall also issue regulations requiring that employers, through posting of notices or other appropriate means, keep their employees informed of their protections and obligations under this Act, including the provisions of applicable standards.

(2) The Secretary, in cooperation with the Secretary of Health and Human Services, shall prescribe regulations requiring employers to maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.

(3) The Secretary, in cooperation with the Secretary of Health and Human Services, shall issue regulations requiring employers to maintain accurate records of employee exposures to potentially toxic materials or harmful physical agents which are required to be monitored or measured under section 6. Such regulations shall provide employees or their representatives with an opportunity to observe such monitoring or measuring, and to have access to the records thereof. Such regulations shall also make appropriate provision for each employee or former employee to have access to such records as will indicate his own exposure to toxic materials or harmful physical agents. Each employer shall promptly notify any employee who has been or is being exposed to toxic materials or harmful physical agents in concentrations or at levels which exceed those prescribed by an applicable occupational safety and health standard promulgated under section 6, and shall inform any employee who is being thus exposed of the corrective action being taken.

(d) Any information obtained by the Secretary, the Secretary of Health and Human Services, or a State agency under this Act shall be obtained with a minimum burden upon employers, especially those operating small businesses. Unnecessary duplication of efforts in obtaining information shall be reduced to the maximum extent feasible.

(e) Subject to regulations issued by the Secretary, a representative of the employer and a representative authorized by his employees shall be given an opportunity to accompany the Secretary or his authorized representative during the physical inspection of any workplace under subsection (a) for the purpose of aiding such inspection. Where there is no authorized employee representative, the Secretary or his authorized representative shall consult with a reasonable number of employees concerning matters of health and safety in the workplace.

(f) (1) Any employees or representative of employees who believe that a violation of a safety or health standard exists that threatens physical harm, or that an imminent danger exists, may request an inspection by giving notice to the Secretary or his authorized representative of such violation or danger. Any such notice shall be reduced to writing, shall set forth with reasonable particularity the grounds for the notice, and shall be signed by the employees or representative of employees, and a copy shall be provided the employer or his agent no later than at the time of inspection, except that, upon the request of the person giving such notice, his name and the names of individual employees referred to therein shall not appear in such copy or on any record published, released, or made available pursuant to subsection (g) of this section. If upon receipt of such notification the Secretary determines there are reasonable grounds to believe that such violation or danger exists, he shall make a special inspection in accordance with the provisions of this section as soon as practicable, to determine if such violation or danger exists. If the Secretary determines there are no reasonable grounds to believe that a violation or danger exists he shall notify the employees or representative of the employees in writing of such determination.

(2) Prior to or during any inspection of a workplace, any employees

or representative of employees employed in such workplace may notify the Secretary or any representative of the Secretary responsible for conducting the inspection, in writing, of any violation of this Act which they have reason to believe exists in such workplace. The Secretary shall, by regulation, establish procedures for informal review of any refusal by a representative of the Secretary to issue a citation with respect to any such alleged violation and shall furnish the employees or representative of employees requesting such review a written statement of the reasons for the Secretary's final disposition of the case.

(g) (1) The Secretary and Secretary of Health and Human Services are authorized to compile, analyze, and publish, either in summary or detailed form, all reports or information obtained under this section.

(2) The Secretary and the Secretary of Health and Human Services shall each prescribe such rules and regulations as he may deem necessary to carry out their responsibilities under this Act, including rules and regulations dealing with the inspection of an employer's establishment.

(h) The Secretary shall not use the results of enforcement activities, such as the number of citations issued or penalties assessed, to evaluate employees directly involved in enforcement activities under this Act or to impose quotas or goals with regard to the results of such activities.

Pub. L. 105-198 added subsection (h).

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(viii) ANSI Z41–1991 Personal Protection—Protective Footwear, IBR approved for § 1915.156(b)(1)

(ix) ANSI Z41–1983 Personal Protection—Protective Footwear, IBR approved for § 1915.156(b)(2).

(2) The following material is available for purchase from the American Society of Mechanical Engineers, 345 East 47th Street, New York, New York 10017:

(i) ASME Boiler and Pressure Vessel Code, Section VIII, Rules for Construction of Unfired Pressure Vessels, 1963, IBR approved for § 1915.172(a).

(3) The following material is available for purchase from the American Conference of Governmental Industrial Hygienists (ACGIH), 1014 Broadway, Cincinnati, OH 45202:

(i) Threshold limit values, 1970, IBR approved for §§ 1915.12(b) and 1915.1000, table Z.

(4) The following material is available for purchase from the National Fire Protection Association, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269–9101:

(i) NFPA 1981–2002 Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services, IBR approved for 1915.505(e)(3)(v).

(ii) NFPA 1971–2000, Standard on Protective Ensemble for Structural Fire Fighting, IBR approved for § 1915.505(e)(4)(ii).

(iii) NFPA 1976–2000, Standard on Protective Ensemble for Proximity Fire Fighting, IBR approved for § 1915.505(e)(5).

(iv) NFPA 1982–1998, Standard on Personal Alert Safety Systems (PASS), IBR approved for § 1915.505(e)(6)(ii).

(v) NFPA 1983–2001, Standard on Fire Service Life Safety Rope and System Components, IBR approved for § 1915.505(e)(7)(i).

(vi) NFPA 10–2002 Standard for Portable Fire Extinguishers, IBR approved for §§ 1915.507(b)(1) and (b)(2).

(vii) NFPA 14–2003 Standard for the Installation of Standpipe and Hose Systems, IBR approved for §§ 1915.507(b)(2) and (d)(1).

(viii) NFPA 72–2002 National Fire Alarm Code, IBR approved for § 1915.507(c)(6).

(ix) NFPA 13–2002 Standard for the Installation of Sprinkler Systems, IBR approved for § 1915.507(d)(2).

(x) NFPA 750–2003 Standard on Water Mist Fire Protection Systems, IBR approved for § 1915.507(d)(2).

(xi) NFPA 25–2002, Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, IBR approved for § 1915.507(d)(2).

(xii) NFPA 15–2001, Standard for Water Spray Fixed Systems for Fire Protection, IBR approved for § 1915.507(d)(3).

(xiii) NFPA 11–2005 Standard for Low-, Medium-, and High-Expansion Foam, IBR approved for § 1915.507(d)(3).

(xiv) NFPA 17–2002, Standard for Dry Chemical Extinguishing Systems, IBR approved for § 1915.507(d)(4).

(xv) NFPA 12–2005, Standard on Carbon Dioxide Extinguishing Systems, IBR approved for § 1915.507(d)(5).

(xvi) NFPA 12A–2004, Standard on Halon 1301 Fire Extinguishing Systems, IBR approved for § 1915.507(d)(5).

(xvii) NFPA 2001–2004, Standard on Clean Agent Fire Extinguishing Systems, IBR approved for § 1915.507(d)(5).

(xviii) NFPA 1403–2002, Standard on Live Fire Training Evolutions, IBR approved for § 1915.508(d)(8).

[61 FR 26359, May 24, 1996, as amended at 67 FR 44541, July 3, 2002; 69 FR 18803, Apr. 9, 2004; 69 FR 55702, Sept. 15, 2004; 71 FR 60846, Oct. 17, 2006]

§ 1915.6 Commerical diving operations.

Commerical diving operations shall be subject to subpart T of part 1910, §§ 1910.401–1910.441 of this chapter.

§ 1915.7 Competent person.

(a) *Application.* This section applies to shipyard employment.

(b) *Designation.* (1) One or more competent persons shall be designated by the employer in accordance with the applicable requirements of this section, unless the requirements of subparts B, C, D and H of this part are always carried out by a Marine Chemist. *Exception:* The employer may designate any person who meets the applicable portions of the criteria set forth in paragraph (c) of this section as a competent person who is limited to performing testing to the following situations:

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(i) Repair work on small craft in boat yards where only combustible gas indicator tests are required for fuel tank leaks or when using flammable paints below decks;

(ii) Building of wooden vessels where only knowledge of the precautions to be taken when using flammable paints is required;

(iii) The breaking of vessels where there is no fuel oil or other flammable hazard; and

(iv) Tests and inspections performed to comply with §§1915.35(b)(8) and 1915.36(a)(5).

(2)(i) The employer shall maintain either a roster of designated competent persons or a statement that a Marine Chemist will perform the tests or inspections which require a competent person.

(ii) The employer shall make the roster of designated persons or the statement available to employees, the employee's representative, the Director or the Assistant Secretary upon request.

(iii) The roster shall contain, as a minimum, the following:

(A) The employers' name,
 (B) The designated competent person's name(s), and
 (C) The date the employee was trained as a competent person.

(c) *Criteria.* The employer shall ensure that each designated competent person has the following skills and knowledge:

(1) Ability to understand and carry out written or oral information or instructions left by Marine Chemist, Coast Guard authorized persons and Certified Industrial Hygienists;

(2) Knowledge of subparts B, C, D and H of this part;

(3) Knowledge of the structure, location, and designation of spaces where work is done;

(4) Ability to calibrate and use testing equipment including but not limited to, oxygen indicators, combustible gas indicators, carbon monoxide indicators, and carbon dioxide indicators, and to interpret accurately the test results of that equipment;

(5) Ability to perform all required tests and inspections which are or may be performed by a competent person as set forth in subparts B, C, D and H of this part.

(6) Ability to inspect, test, and evaluate spaces to determine the need for further testing by a Marine Chemist or a Certified Industrial Hygienist; and

(7) Ability to maintain records required by this section.

(d) *Recordkeeping.* (1) When tests and inspections are performed by a competent person, Marine Chemist, or Certified Industrial Hygienist as required by any provisions of subparts B, C, D, or H of this part, the employer shall ensure that the person performing the test and inspection records the location, time, date, location of inspected spaces, and the operations performed, as well as the test results and any instructions.

(2) The employer shall ensure that the records are posted in the immediate vicinity of the affected operations while work in the spaces is in progress. The records shall be kept on file for a period of at least three months from the completion date of the specific job for which they were generated.

(3) The employer shall ensure that the records are available for inspection by the Assistant Secretary, Director, and employees and their representatives.

[59 FR 37856, July 25, 1994]

§ 1915.8 OMB control numbers under the Paperwork Reduction Act.

The following sections or paragraphs contain a collection of information requirement which has been approved by the Office of Management and Budget under the control number listed.

29 CFR citation	OMB control No.
1915.11-1915.16	1218-0011
1915.113	1218-0220
1915.152(b)	1218-0215
1915.152(e)	1218-0215
1915.159(d)	1218-0215
1915.160(d)	1218-0215
1915.172	1218-0220
1915.501(d)	1218-0248
1915.502(a)	1218-0248
1915.502(b)	1218-0248
1915.502(c)	1218-0248
1915.502(d)	1218-0248
1915.504(a)	1218-0248
1915.505(a)	1218-0248
1915.505(b)	1218-0248
1915.505(d)	1218-0248
1915.506(b)	1218-0248
1915.507(c)	1218-0248
1915.508(a)	1218-0248

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29 CFR citation	OMB con- trol No.
1915.508(b)	1218–0248
1915.508(c)	1218–0248
1915.508(d)	1218–0248
1915.508(e)	1218–0248
1915.508(f)	1218–0248
1915.1001	1218–0195
1915.1003	1218–0085
1915.1004	1218–0084
1915.1006	1218–0086
1915.1007	1218–0083
1915.1008	1218–0087
1915.1009	1218–0089
1915.1010	1218–0082
1915.1011	1218–0090
1915.1012	1218–0080
1915.1013	1218–0079
1915.1014	1218–0088
1915.1015	1218–0044
1915.1016	1218–0081
1915.1017	1218–0010
1915.1018	1218–0104
1915.1025	1218–0092
1915.1026	1218–0252
1915.1027	1218–0185
1915.1028	1218–0129
1915.1030	1218–0180
1915.1044	1218–0101
1915.1045	1218–0126
1915.1047	1218–0108
1915.1048	1218–0145
1915.1050	1218–0184
1915.1120	1218–0065
1915.1200	1218–0072
1915.1450	1218–0131

[61 FR 5509, Feb. 13, 1996, as amended at 62 FR 33547, June 20, 1997; 63 FR 13340, Mar. 19, 1998; 70 FR 13371, Mar. 21, 2005; 71 FR 38086, July 5, 2006]

Subpart B—Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment

SOURCE: 59 FR 37857, July 25, 1994, unless otherwise noted.

§ 1915.11 Scope, application and definitions applicable to this subpart.

(a) *Scope and application.* 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.

(b) *Definitions applicable to this subpart.* *Adjacent spaces* means those spaces bordering a subject space in all directions, including all points of contact, corners, diagonals, decks, tank tops, and bulkheads.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Certified Industrial Hygienist (CIH) means an industrial hygienist who is certified by the American Board of Industrial Hygiene.

Coast Guard authorized person means an individual who meets the requirement of appendix B to subpart B of this part 1915 for tank vessels, for passenger vessels, and for cargo and miscellaneous vessels.

Dangerous atmosphere means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (i.e., escape unaided from a confined or enclosed space), injury, or acute illness.

Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Enter with Restrictions denotes a space where entry for work is permitted only if engineering controls, personal protective equipment, clothing, and time limitations are as specified by the Marine Chemist, Certified Industrial Hygienist, or the shipyard competent person.

Entry means the action by which a person passes through an opening into a space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant’s body breaks the plane of an opening into the space.

Hot work means any activity involving riveting, welding, burning, the use of powder-actuated tools or similar fire-producing operations. Grinding, drilling, abrasive blasting, or similar spark-producing operations are also considered hot work except when such operations are isolated physically from any atmosphere containing more than 10 percent of the lower explosive limit of a flammable or combustible substance.

Immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life or that is likely to result in acute or immediate severe health effects.

Inert or inerted atmosphere means an atmospheric condition where:

(1) The oxygen content of the atmosphere in the space is maintained at a level equal to or less than 8.0 percent by volume or at a level at or below 50 percent of the amount required to support combustion, whichever is less; or

(2) The space is flooded with water and the vapor concentration of flammable or combustible materials in the free space atmosphere above the water line is less than 10 percent of the lower explosive limit for the flammable or combustible material.

Labeled means identified with a sign, placard, or other form of written communication, including pictograms, that provides information on the status or condition of the work space to which it is attached.

Lower explosive limit (LEL) means the minimum concentration of vapor in air below which propagation of a flame does not occur in the presence of an ignition source.

Marine Chemist means an individual who possesses a current Marine Chemist Certificate issued by the National Fire Protection Association.

Not Safe for Hot Work denotes a space where hot work may not be performed because the conditions do not meet the criteria for Safe for Hot Work.

Nationally Recognized Testing Laboratory (NRTL) means an organization recognized by OSHA, in accordance with appendix A of 29 CFR 1910.7, which tests for safety and lists or labels or accepts equipment and materials that meet all the criteria found in § 1910.7(b)(1) through (b)(4)(ii).

Not Safe for Workers denotes a space where an employee may not enter because the conditions do not meet the criteria for Safe for Workers.

Oxygen-deficient atmosphere means an atmosphere having an oxygen concentration of less than 19.5 percent by volume.

Oxygen-enriched atmosphere means an atmosphere that contains 22.0 percent or more oxygen by volume.

Safe for Hot Work denotes a space that meets all of the following criteria:

(1) The oxygen content of the atmosphere does not exceed 22.0 percent by volume;

(2) The concentration of flammable vapors in the atmosphere is less than 10 percent of the lower explosive limit;

(3) The residues or materials in the space are not capable of producing a higher concentration than permitted in paragraph (1) or (2) of the above, under existing atmospheric conditions in the presence of hot work and while maintained as directed by the Marine Chemist or competent person, and

(4) All adjacent spaces have been cleaned, or inerted, or treated sufficiently to prevent the spread of fire.

Safe for Workers denotes a space that meets the following criteria:

(1) The oxygen content of the atmosphere is at least 19.5 percent and below 22 percent by volume;

(2) The concentration of flammable vapors is below 10 percent of the lower explosive limit (LEL);

(3) Any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, or inerting media are within permissible concentrations at the time of the inspection; and

(4) Any residues or materials associated with the work authorized by the Marine Chemist, Certified Industrial Hygienist, or competent person will not produce uncontrolled release of toxic materials under existing atmospheric conditions while maintained as directed.

Space means an area on a vessel or vessel section or within a shipyard such as, but not limited to: cargo tanks or holds; pump or engine rooms; storage lockers; tanks containing flammable or combustible liquids, gases, or solids; rooms within buildings; crawl spaces; tunnels; or accessways. The atmosphere within a space is the entire area within its bounds.

Upper explosive limit (UEL) means the maximum concentration of flammable vapor in air above which propagation of flame does not occur on contact with a source of ignition.

Vessel section means a sub-assembly, module, or other component of a vessel being built, repaired, or broken.

Visual inspection means the physical survey of the space, its surroundings and contents to identify hazards such as, but not limited to, restricted accessibility, residues, unguarded machinery, and piping or electrical systems.

§ 1915.12 Precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres.

The employer shall ensure that atmospheric testing is performed in the following sequence: oxygen content, flammability, toxicity.

(a) *Oxygen content.* (1) The employer shall ensure that the following spaces are visually inspected and tested by a competent person to determine the atmosphere's oxygen content prior to initial entry into the space by an employee:

(i) Spaces that have been sealed, such as, but not limited to, spaces that have been coated and closed up, and non-ventilated spaces that have been freshly painted;

(ii) Spaces and adjacent spaces that contain or have contained combustible or flammable liquids or gases;

(iii) Spaces and adjacent spaces that contain or have contained liquids, gases, or solids that are toxic, corrosive, or irritant;

(iv) Spaces and adjacent spaces that have been fumigated; and

(v) Spaces containing materials or residues of materials that create an oxygen-deficient atmosphere.

(2) If the space to be entered contains an oxygen deficient atmosphere, the space shall be labeled "Not Safe for Workers" or, if oxygen-enriched, "Not Safe for Workers—Not Safe for Hot Work." If an oxygen-deficient or oxygen-enriched atmosphere is found, ventilation shall be provided at volumes and flow rates sufficient to ensure that the oxygen content is maintained at or above 19.5 percent and below 22.0 percent by volume. The warning label may be removed when the oxygen content is equal to or greater than 19.5 and less than 22.0 percent by volume.

(3) An employee may not enter a space where the oxygen content, by volume, is below 19.5 percent or above 22.0 percent. Exception: An employee may enter for emergency rescue or for a short duration for installation of ventilation equipment necessary to start work in the space provided:

(i) The atmosphere in the space is monitored for oxygen content, by volume, continuously; and

(ii) Respiratory protection and other appropriate personal protective equipment and clothing are provided in accordance with subpart I of this part.

NOTE TO PARAGRAPH (a): Other provisions for work in IDLH atmospheres are located in subpart I of this part.

(b) *Flammable atmospheres.* (1) The employer shall ensure that spaces and adjacent spaces that contain or have contained combustible or flammable liquids or gases are:

(i) Inspected visually by the competent person to determine the presence of combustible or flammable liquids; and

(ii) Tested by a competent person prior to entry by an employee to determine the concentration of flammable vapors and gases within the space.

(2) If the concentration of flammable vapors or gases in the space to be entered is equal to or greater than 10 percent of the lower explosive limit, the space shall be labeled "Not Safe for Workers" and "Not Safe for Hot Work." Ventilation shall be provided at volumes and flow rates sufficient to ensure that the concentration of flammable vapors is maintained below 10 percent of the lower explosive limit. The warning labels may be removed when the concentration of flammable vapors is below 10 percent of the lower explosive limit.

(3) An employee may not enter a space where the concentration of flammable vapors or gases is equal to or greater than 10 percent of the lower explosive limit. Exception: An employee may enter for emergency rescue or for a short duration for installation of ventilation equipment necessary to start work in the space, provided:

(i) No ignition sources are present;

(ii) The atmosphere in the space is monitored continuously;

(iii) Atmospheres at or above the upper explosive limit are maintained; and

(iv) Respiratory protection and other appropriate personal protective equipment and clothing are provided in accordance with subpart I of this part.

NOTE 1 TO PARAGRAPH (b): Additional provisions for work in IDLH atmospheres are located in subpart I of this part.

NOTE 2 TO PARAGRAPH (b): Additional provisions for work in spaces containing a flammable substance which also has a permissible exposure limit, are located in subpart Z of 29 CFR part 1915, and §1915.12(c).

(c) *Toxic, corrosive, irritant or fumigated atmospheres and residues.* (1) The employer shall ensure that spaces or adjacent spaces that contain or have contained liquids, gases, or solids that are toxic, corrosive or irritant are:

(i) Inspected visually by the competent person to determine the presence of toxic, corrosive, or irritant residue contaminants; and

(ii) Tested by a competent person prior to initial entry by an employee to determine the air concentration of toxics, corrosives, or irritants within the space.

(2) If a space contains an air concentration of a material which exceeds a part 1915 subpart Z permissible exposure limit (PEL) or is IDLH, the space shall be labeled "Not Safe for Workers." Ventilation shall be provided at volumes and flow rates which will ensure that air concentrations are maintained within the PEL or, in the case of contaminants for which there is no established PEL, below the IDLH. The warning label may be removed when the concentration of contaminants is maintained within the PEL or below IDLH level.

(3) If a space cannot be ventilated to within the PELs or is IDLH, a Marine Chemist or CIH must re-test until the space can be certified "Enter with Restrictions" or "Safe for Workers."

(4) An employee may not enter a space whose atmosphere exceeds a PEL or is IDLH. Exception: An employee may enter for emergency rescue, or for a short duration for installation of ventilation equipment provided:

(i) The atmosphere in the space is monitored continuously;

(ii) Respiratory protection and other necessary and appropriate personal protective equipment and clothing are provided in accordance with subpart I of this part.

NOTE TO PARAGRAPH (c): Other provisions for work in IDLH atmospheres are located in subpart I of this part.

(d) *Training of employees entering confined and enclosed spaces or other dangerous atmospheres.* (1) The employer

shall ensure that each employee that enters a confined or enclosed space and other areas with dangerous atmospheres is trained to perform all required duties safely.

(2) The employer shall ensure that each employee who enters a confined space, enclosed space, or other areas with dangerous atmospheres is trained to:

(i) Recognize the characteristics of the confined space;

(ii) Anticipate and be aware of the hazards that may be faced during entry;

(iii) Recognize the adverse health effects that may be caused by the exposure to a hazard;

(iv) Understand the physical signs and reactions related to exposures to such hazards;

(v) Know what personal protective equipment is needed for safe entry into and exit from the space;

(vi) Use personal protective equipment; and

(vii) Where necessary, be aware of the presence and proper use of barriers that may be needed to protect an entrant from hazards.

(3) The employer shall ensure that each entrant into confined or enclosed spaces or other dangerous atmospheres is trained to exit the space or dangerous atmosphere whenever:

(i) The employer or his or her representative orders evacuation;

(ii) An evacuation signal such as an alarm is activated ; or

(iii) The entrant perceives that he or she is in danger.

(4) The employer shall provide each employee with training:

(i) Before the entrant begins work addressed by this section; and

(ii) Whenever there is a change in operations or in an employee's duties that presents a hazard about which the employee has not previously been trained.

(5) The employer shall certify that the training required by paragraphs (d)(1) through (d)(4) of this section has been accomplished.

(i) The certification shall contain the employee's name, the name of the certifier, and the date(s) of the certification.

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(ii) The certification shall be available for inspection by the Assistant Secretary, the Director, employees, and their representatives.

(e) *Rescue teams.* The employer shall either establish a shipyard rescue team or arrange for an outside rescue team which will respond promptly to a request for rescue service.

(1) Shipyard rescue teams shall meet the following criteria:

(i) Each employee assigned to the shipyard team shall be provided with and trained to use the personal protective equipment he or she will need, including respirators and any rescue equipment necessary for making rescues from confined and enclosed spaces and other dangerous atmospheres.

(ii) Each employee assigned to the shipyard rescue team shall be trained to perform his or her rescue functions including confined and enclosed and other dangerous atmosphere entry.

(iii) Shipyard rescue teams shall practice their skills at least once every 12 months. Practice drills shall include the use of mannequins and rescue equipment during simulated rescue operations involving physical facilities that approximate closely those facilities from which rescue may be needed.

NOTE TO PARAGRAPH (e)(1)(iii): If the team performs an actual rescue during the 12 month period, an additional practice drill for that type of rescue is not required.

(iv) At least one person on each rescue team shall maintain current certification in basic first aid which includes maintenance of an airway, control of bleeding, maintenance of circulation and cardiopulmonary resuscitation (CPR) skills.

(2) The employer shall inform outside rescue teams of the hazards that the team may encounter when called to perform confined and enclosed space or other dangerous atmosphere rescue at the employer's facility so that the rescue team can be trained and equipped.

NOTE TO PARAGRAPH (e): The criteria for in-house rescue, listed in paragraph (e)(1) can be used by the employer in evaluating outside rescue services.

(f) *Exchanging hazard information between employers.* Each employer whose employees work in confined and enclosed spaces or other dangerous

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atmospheres shall ensure that all available information on the hazards, safety rules, and emergency procedures concerning those spaces and atmospheres is exchanged with any other employer whose employees may enter the same spaces.

[59 FR 37857, July 25, 1994, as amended at 60 FR 14219, Mar. 16, 1995]

§ 1915.13 Cleaning and other cold work.

(a) *Locations covered by this section.* The employer shall ensure that manual cleaning and other cold work are not performed in the following spaces unless the conditions of paragraph (b) of this section have been met:

(1) Spaces containing or having last contained bulk quantities of combustible or flammable liquids or gases; and

(2) Spaces containing or having last contained bulk quantities of liquids, gases or solids that are toxic, corrosive or irritating.

(b) *Requirements for performing cleaning or cold work.* (1) Liquid residues of hazardous materials shall be removed from work spaces as thoroughly as practicable before employees start cleaning operations or cold work in a space. Special care shall be taken to prevent the spilling or the draining of these materials into the water surrounding the vessel, or for shore-side operations, onto the surrounding work area.

(2) Testing shall be conducted by a competent person to determine the concentration of flammable, combustible, toxic, corrosive, or irritant vapors within the space prior to the beginning of cleaning or cold work.

(3) Continuous ventilation shall be provided at volumes and flow rates sufficient to ensure that the concentration(s) of:

(i) Flammable vapor is maintained below 10 percent of the lower explosive limit; and

NOTE TO PARAGRAPH (b)(3)(i): Spaces containing highly volatile residues may require additional ventilation to keep the concentration of flammable vapors below 10 percent of the lower explosive limit and within the permissible exposure limit.

(ii) Toxic, corrosive, or irritant vapors are maintained within the permissible exposure limits and below IDLH levels.

(4) Testing shall be conducted by the competent person as often as necessary during cleaning or cold work to assure that air concentrations are below 10 percent of the lower explosive limit and within the PELs and below IDLH levels. Factors such as, but not limited to, temperature, volatility of the residues and other existing conditions in and about the spaces are to be considered in determining the frequency of testing necessary to assure a safe atmosphere.

NOTE TO PARAGRAPH (b)(4): See appendix A for additional information on frequency of testing.

(5) Spills or other releases of flammable, combustible, toxic, corrosive, and irritant materials shall be cleaned up as work progresses.

(6) An employee may not enter a confined or enclosed space or other dangerous atmosphere if the concentration of flammable or combustible vapors in work spaces exceeds 10 percent of the lower explosive limit. Exception: An employee may enter for emergency rescue or for a short duration for installation of ventilation equipment provided:

- (i) No ignition sources are present;
- (ii) The atmosphere in the space is monitored continuously;
- (iii) The atmosphere in the space is maintained above the upper explosive limit; and
- (iv) Respiratory protection, personal protective equipment, and clothing are provided in accordance with subpart I of this part.

NOTE TO PARAGRAPH (b)(6): Other provisions for work in IDLH and other dangerous atmospheres are located in subpart I of this part.

(7) A competent person shall test ventilation discharge areas and other areas where discharged vapors may collect to determine if vapors discharged from the spaces being ventilated are accumulating in concentrations hazardous to employees.

(8) If the tests required in paragraph (b)(7) of this section indicate that concentrations of exhaust vapors that are hazardous to employees are accumu-

lating, all work in the contaminated area shall be stopped until the vapors have dissipated or been removed.

(9) Only explosion-proof, self-contained portable lamps, or other electric equipment approved by a National Recognized Testing Laboratory (NRTL) for the hazardous location shall be used in spaces described in paragraph (a) of this section until such spaces have been certified as "Safe for Workers."

NOTE TO PARAGRAPH (b)(9): Battery-fed, portable lamps or other electric equipment bearing the approval of a NRTL for the class, and division of the location in which they are used are deemed to meet the requirements of this paragraph.

(10) The employer shall prominently post signs that prohibit sources of ignition within or near a space that has contained flammable or combustible liquids or gases in bulk quantities:

- (i) At the entrance to those spaces;
- (ii) In adjacent spaces; and
- (iii) In the open area adjacent to those spaces.

(11) All air moving equipment and its component parts, including duct work, capable of generating a static electric discharge of sufficient energy to create a source of ignition, shall be bonded electrically to the structure of a vessel or vessel section or, in the case of land-side spaces, grounded to prevent an electric discharge in the space.

(12) Fans shall have non-sparking blades, and portable air ducts shall be of non-sparking materials.

NOTE TO PARAGRAPH (b): See §1915.12(c) of this part and applicable requirements of 29 CFR part 1915, subpart Z for other provisions affecting cleaning and cold work.

§ 1915.14 Hot work.

(a) *Hot work requiring testing by a Marine Chemist or Coast Guard authorized person.* (1) 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 of 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":

- (i) Within, on, or immediately adjacent to spaces that contain or have contained combustible or flammable liquids or gases.

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(ii) Within, on, or immediately adjacent to fuel tanks that contain or have last contained fuel; and

(iii) On pipelines, heating coils, pump fittings or other accessories connected to spaces that contain or have last contained fuel.

(iv) Exception: On dry cargo, miscellaneous and passenger vessels and in the landside operations within spaces which meet the standards for oxygen, flammability and toxicity in §1915.12, but are adjacent to spaces containing flammable gases or liquids, with a flash point below 150 °F (65.6 °C) when the distance between such spaces and the work is 25 feet (7.62 m) or greater.

NOTE TO PARAGRAPH (a)(1)(iv): For flammable liquids with flash points above 150 °F (65.6 °C), see paragraph (b) of this section.

(2) The certificate issued by the Marine Chemist or Coast Guard authorized person shall be posted in the immediate vicinity of the affected operations while they are in progress and kept on file for a period of at least three months from the date of the completion of the operation for which the certificate was generated.

(b) *Hot work requiring testing by a competent person.* (1) Hot work is not permitted in or on the following spaces or adjacent spaces or other dangerous atmospheres until they have been tested by a competent person and determined to contain no concentrations of flammable vapors equal to or greater than 10 percent of the lower explosive limit:

(i) Dry cargo holds,

(ii) The bilges,

(iii) The engine room and boiler spaces for which a Marine Chemist or a Coast Guard authorized person certificate is not required under paragraph (a)(1)(i) of this section.

(iv) Vessels and vessel sections for which a Marine Chemist or Coast Guard authorized person certificate is not required under paragraph (a)(1)(iv) of this section.

(v) Land-side confined and enclosed spaces or other dangerous atmospheres not covered by paragraph (a)(1) of this section.

(2) If the concentration of flammable vapors or gases is equal to or greater than 10 percent of the lower explosive limit in the space or an adjacent space

where the hot work is to be done, then the space shall be labeled “Not Safe for Hot Work” and ventilation shall be provided at volumes and flow rates sufficient to ensure that the concentration of flammable vapors or gases is below 10 percent by volume of the lower explosive limit. The warning label may be removed when the concentration of flammable vapors and gases are below 10 percent lower explosive limit.

NOTE TO §1915.14: See appendix A of this subpart for additional information relevant to performing hot work safely.

[59 FR 37857, July 25, 1994, as amended at 60 FR 14219, Mar. 16, 1995; 67 FR 44541, July 3, 2002]

§ 1915.15 Maintenance of safe conditions.

(a) *Preventing hazardous materials from entering.* Pipelines that could 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.

(b) *Alteration of existing conditions.* When a change that could alter conditions within a tested confined or enclosed space or other dangerous atmosphere occurs, work in the affected space or area shall be stopped. Work may not be resumed until the affected space or area is visually inspected and retested and found to comply with §§1915.12, 1915.13, and 1915.14 of this part, as applicable.

NOTE TO PARAGRAPH (b): Examples of changes that would warrant the stoppage of work include: The opening of manholes or other closures or the adjusting of a valve regulating the flow of hazardous materials.

(c) *Tests to maintain the conditions of a Marine Chemist’s or Coast Guard authorized person’s certificates.* A competent person shall visually inspect and test each space certified as “Safe for Workers” or “Safe for Hot Work,” as often as necessary to ensure that atmospheric conditions within that space are maintained within the conditions established by the certificate after the certificate has been issued.

(d) *Change in the conditions of a Marine Chemist's or Coast Guard authorized person's certificate.* If a competent person finds that the atmospheric conditions within a certified space fail to meet the applicable requirements of §§1915.12, 1915.13, and 1915.14 of this part, work in the certified space shall be stopped and may not be resumed until the space has been retested by a Marine Chemist or Coast Guard authorized person and a new certificate issued in accordance with §1915.14(a).

(e) *Tests to maintain a competent person's findings.* After a competent person has conducted a visual inspection and tests required in §§1915.12, 1915.13, and 1915.14 of this part and determined a space to be safe for an employee to enter, he or she shall continue to test and visually inspect spaces as often as necessary to ensure that the required atmospheric conditions within the tested space are maintained."

(f) *Changes in conditions determined by competent person's findings.* After the competent person has determined initially that a space is safe for an employee to enter and he or she finds subsequently that the conditions within the tested space fail to meet the requirements of §§1915.12, 1915.13, and 1915.14, of this part, as applicable, work shall be stopped until the conditions in the tested space are corrected to comply with §§1915.12, 1915.13, and 1915.14, as applicable.

[59 FR 37857, July 25, 1994, as amended at 60 FR 14219, Mar. 16, 1995; 67 FR 44541, July 3, 2002]

§ 1915.16 Warning signs and labels.

(a) *Employee comprehension of signs and labels.* The Employer shall ensure that each sign or label posted to comply with the requirements of this subpart is presented in a manner that can be perceived and understood by all employees.

(b) *Posting of large work areas.* A warning sign or label required by paragraph (a) of this section need not be posted at an individual tank, compartment or work space within a work area if the entire work area has been tested and certified: not safe for workers, not safe for hot work, and if the sign or label to this effect is posted conspicu-

ously at each means of access to the work area.

APPENDIX A TO SUBPART B OF PART 1915—COMPLIANCE ASSISTANCE GUIDELINES FOR CONFINED AND ENCLOSED SPACES AND OTHER DANGEROUS ATMOSPHERES

This appendix is a non-mandatory set of guidelines provided to assist employers in complying with the requirements of this subpart. This appendix neither creates additional obligations nor detracts from obligations otherwise contained in the standard. It is intended to provide explanatory information and educational material to employers and employees to foster understanding of, and compliance with, the standard.

Sections 1915.11 through 1915.16. These standards are minimum safety standards for entering and working safely in vessel tanks and compartments.

Section 1915.11(b) Definition of "Hot work." There are several instances in which circumstances do not necessitate that grinding, drilling, abrasive blasting be regarded as hot work. Some examples are:

1. Abrasive blasting of the hull for paint preparation does not necessitate pumping and cleaning the tanks of a vessel.
2. Prior to hot work on any hollow structure, the void space should be tested and appropriate precautions taken.

Section 1915.11(b) Definition of "Lower explosive limit." The terms lower flammable limit (LFL) and lower explosive limit (LEL) are used interchangeably in fire science literature.

Section 1915.11(b) Definition of "Upper explosive limit." The terms upper flammable limit (UFL) and upper explosive limit (UEL) are used interchangeably in fire science literature.

Section 1915.12(a)(3). After a tank has been properly washed and ventilated, the tank should contain 20.8 percent oxygen by volume. This is the same amount found in our normal atmosphere at sea level. However, it is possible that the oxygen content will be lower. When this is the case, the reasons for this deficiency should be determined and corrective action taken.

An oxygen content of 19.5 percent can support life and is adequate for entry. However, any oxygen level greater than 20.8 percent by volume should alert the competent person to look for the cause of the oxygen-enriched atmosphere and correct it prior to entry. In addition, any oxygen level lower than 19.5 percent level should also alert the competent person to look for the cause of the oxygen-deficiency and correct it prior to entry.

Section 1915.12(b)(3) Flammable atmospheres. Atmospheres with a concentration of flammable vapors at or above 10 percent of the

lower explosive limit (LEL) are considered hazardous when located in confined spaces. However, atmospheres with flammable vapors below 10 percent of the LEL are not necessarily safe.

Such atmospheres are too lean to burn. Nevertheless, when a space contains or produces measurable flammable vapors below the 10 percent LEL, it might indicate that flammable vapors are being released or introduced into the space and could present a hazard in time. Therefore, the cause of the vapors should be investigated and, if possible, eliminated prior to entry.

Some situations that have produced measurable concentrations of flammable vapors that could exceed 10 percent of the LEL in time are:

1. Pipelines that should have been blanked or disconnected have opened, allowing product into the space.

2. The vessel may have shifted, allowing product not previously cleaned and removed during washing to move into other areas of the vessel.

3. Residues may be producing the atmosphere by releasing flammable vapor.

Section 1915.12(b)(6) Flammable atmospheres that are toxic. An atmosphere with a measurable concentration of a flammable substance below 10 percent of the LEL may be above the OSHA permissible exposure limit for that substance. In that case, refer to §1915.12(c) (2), (3), and (4).

Sections 1915.13(b)(4), 1915.15(c), and 1915.15(e). The frequency with which a tank is monitored to determine if atmospheric conditions are being maintained is a function of several factors that are discussed below:

1. *Temperature.* Higher temperatures will cause a combustible or flammable liquid to vaporize at a faster rate than lower temperatures. This is important since hotter days may cause tank residues to produce more vapors and that may result in the vapors exceeding 10 percent of the LEL or an overexposure to toxic contaminants.

2. *Work in the tank.* Any activity in the tank could change the atmospheric conditions in that tank. Oxygen from a leaking oxyfuel hose or torch could result in an oxygen-enriched atmosphere that would more easily propagate a flame. Some welding operations use inert gas, and leaks can result in an oxygen-deficient atmosphere. Manual tank cleaning with high pressure spray devices can stir up residues and result in exposures to toxic contaminants. Simple cleaning or mucking out, where employees walk through and shovel residues and sludge, can create a change in atmospheric conditions.

3. *Period of time elapsed.* If a period of time has elapsed since a Marine Chemist or Coast Guard authorized person has certified a tank as safe, the atmospheric condition should be

rechecked by the competent person prior to entry and starting work.

4. *Unattended tanks or spaces.* When a tank or space has been tested and declared safe, then subsequently left unattended for a period of time, it should be retested prior to entry and starting work. For example, when barges are left unattended at night, unidentified products from another barge are sometimes dumped into their empty tanks. Since this would result in a changed atmosphere, the tanks should be retested prior to entry and starting work.

5. *Work break.* When workers take a break or leave at the end of the shift, equipment sometimes is inadvertently left in the tanks. At lunch or work breaks and at the end of the shift are the times when it is most likely someone will leave a burning or cutting torch in the tank, perhaps turned on and leaking oxygen or an inert gas. Since the former can produce an oxygen-enriched atmosphere, and the latter an oxygen-deficient atmosphere, tanks should be checked for equipment left behind, and atmosphere, monitored if necessary prior to re-entering and resuming work. In an oxygen-enriched atmosphere, the flammable range is severely broadened. This means that an oxygen-enriched atmosphere can promote very rapid burning.

6. *Ballasting or trimming.* Changing the position of the ballast, or trimming or in any way moving the vessel so as to expose cargo that had been previously trapped, can produce a change in the atmosphere of the tank. The atmosphere should be retested after any such move and prior to entry or work.

Section 1915.14 (a) and (b) Hot work. This is a reminder that other sections of the OSHA shipyard safety and health standards in part 1915 should be reviewed prior to starting any hot work. Most notably, subpart D, Welding, Cutting and Heating, places additional restrictions on hot work. The requirements of §§1915.51 and 1915.53 must be met before hot work is begun on any metal that is toxic or is covered by a preservative coating respectively; the requirements of §1915.54 must be met before welding, cutting, or heating is begun on any hollow containers or structures not covered by §1915.12.

Section 1915.12(a)(2). During hot work, more than 20.8 percent oxygen by volume can be unsafe since it extends the normal flammable range. The standard permits the oxygen level to reach 22 percent by volume in order to account for instrument error. However, the cause of excess oxygen should be investigated and the source removed.

Section 1915.16(b). If the entire vessel has been found to be in the same condition, then employers shall be considered to be in compliance with this requirement when signs using appropriate warning language in accordance with §1915.16(a) are posted at the

gangway and at all other means of access to the vessel.

[47 FR 16986, Apr. 20, 1982, as amended at 67 FR 44541, July 3, 2002]

APPENDIX B TO SUBPART B OF PART 1915—REPRINT OF U.S. COAST GUARD REGULATIONS REFERENCED IN SUBPART B, FOR DETERMINATION OF COAST GUARD AUTHORIZED PERSONS

This appendix provides a complete reprint of U.S. Coast Guard regulations as of October 1, 1993, referenced in subpart B for purposes of determining who is a Coast Guard authorized person.

1. Title 46 CFR 35.01-1 (a) through (c) covering hot work on tank vessels reads as follows:

(a) The provisions of "Standard for the Control of Gas Hazards on Vessels to be Repaired," NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, shall be used as a guide in conducting the inspections and issuance of certificates required by this section.

(b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions shall be made:

(1) Within or on the boundaries of cargo tanks that have been used to carry flammable or combustible liquid or chemicals in bulk, or within spaces adjacent to such cargo tanks; or

(2) Within or on the boundaries of fuel tanks; or

(3) To pipe lines, heating coils, pumps, fittings, or other appurtenances connected to such cargo or fuel tanks.

(c) Such inspections shall be made and evidenced as follows:

(1) In ports or places in the United States or its territories and possessions, the inspection shall be made by a Marine Chemist certificated by the National Fire Protection Association; however, if the services of such certified Marine Chemists are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative, shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicates that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified Marine Chemist or the authorized person before the work is started. Such qualifications shall include any requirements as may be deemed necessary to maintain, inso-

far as can reasonably be done, the safe conditions in the spaces certified, throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that may be present from protective coatings or residues from cargoes.

2. Title 46 CFR 71.60(c)(1) covering hot work on passenger vessels reads as follows:

(a) The provisions of "Standard for the Control of Gas Hazards on Vessels to be Repaired," NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, shall be used as a guide in conducting the inspections and issuance of certificates required by this section.

(b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions shall be made:

(1) Within or on the boundaries of cargo tanks which have been used to carry flammable or combustible liquid or chemicals in bulk, or within spaces adjacent to such cargo tanks; or

(2) Within or on the boundaries of fuel tanks; or

(3) To pipe lines, heating coils, pumps, fittings, or other appurtenances connected to such cargo or fuel tanks.

(c) Such inspections shall be made and evidenced as follows:

(1) In ports or places in the United States or its territories and possessions the inspection shall be made by a Marine Chemist certificated by the National Fire Protection Association; however, if the services of such certified Marine Chemist are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative, shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicated that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified Marine Chemist or the authorized person before the work is started. Such qualifications shall include any requirements as may be deemed necessary to maintain, insofar as can reasonably be done, the safe conditions in the spaces certified throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that may be present from protective coatings or residues from cargoes.

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3. Title 46 CFR 91.50-1(c)(1) covering hot work on cargo and miscellaneous vessels as follows:

(a) The provisions of "Standard for the Control of Gas Hazards on Vessels to be Repaired," NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, shall be used as a guide in conducting the inspections and issuance of certificates required by this section.

(b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions shall be made:

(1) Within or on the boundaries of cargo tanks which have been used to carry flammable or combustible liquid or chemicals in bulk, or within spaces adjacent to such cargo tanks; or,

(2) Within or on the boundaries of fuel tanks; or,

(3) To pipe lines, heating coils, pumps, fittings, or other appurtenances connected to such cargo or fuel tanks.

(c) Such inspections shall be made and evidenced as follows:

(1) In ports or places in the United States or its territories and possessions the inspection shall be made by a Marine Chemist certificated by the National Fire Protection Association; however, if the services of such certified Marine Chemist are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative, shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicated that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified Marine Chemist or the authorized person before the work is started. Such qualifications shall include any requirements as may be deemed necessary to maintain, insofar as can reasonably be done, the safe conditions in the spaces certified throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that may be present from protective coatings or residues from cargoes.

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Subpart C—Surface Preparation and Preservation

§ 1915.31 Scope and application of subpart.

The standards contained in this subpart shall apply to ship repairing and shipbuilding and shall not apply to shipbreaking.

§ 1915.32 Toxic cleaning solvents.

(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 a concentration which is safe for the entire work period.

(3) Employees shall be protected against toxic vapors by suitable respiratory protective equipment in accordance with the requirements of subpart I of this part and, where necessary, against exposure of skin and eye contact with toxic solvents and their vapors by suitable clothing and equipment.

(b) The principles in the threshold limit values to which attention is directed in § 1915.4 will be used by the Department of Labor in enforcement proceedings in defining a safe concentration of air contaminants.

(c) When flammable solvents are used, precautions shall be taken in accordance with the requirements of § 1915.36.

[47 FR 16986, Apr. 20, 1982, as amended at 61 FR 26351, May 24, 1996]

§ 1915.33 Chemical paint and preservative removers.

(a) Employees shall be protected against skin contact during the handling and application of chemical paint and preservative removers and shall be protected against eye injury by goggles or face shields in accordance with the requirements of subpart I of this part.