SUPPORTING STATEMENT FOR THE INFORMATION COLLECTION REQUIREMENTS CONTAINED IN THE FINAL STANDARD ON GENERAL WORKING CONDITIONS IN SHIPYARD EMPLOYMENT (29 CFR PART 1915, SUBPART F)¹ OFFICE OF MANAGEMENT AND BUDGET (OMB) CONTROL NO. 1218-0259 (April 2011)

A. 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 of 1970 (OSH Act) (651 U.S.C. 651 *et seq.*) 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." To achieve this objective, the OSH Act specifically authorizes "the development and promulgation of occupational safety and health standards" (29 U.S.C 651).

With regard to recordkeeping, the OSH Act 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 this Act . . .". (29 U.S.C. 657). The OSH Act states further that "[t]he Secretary . . . shall prescribe such rules and regulations as [he/she] may deem necessary to carry out [his/her] responsibilities under this Act, including rules and regulations dealing with the inspection of an employer's establishment" (29 U.S.C. 657).

Under the authority granted by the OSH Act, the Occupational Safety and Health Administration (OSHA) is publishing a final rule to revise the standards on General Working Conditions in Shipyard Employment (29 CFR part 1915, subpart F). The revision updates existing requirements to reflect advances in industry practices and technology. Also, the revision will cross reference general industry standards either that are already applicable to shipyard employment or that OSHA intends to apply. Finally, OSHA is adding provisions that would provide protection from hazards not addressed by existing standards, including provisions on the control of hazardous energy (lockout/tags-plus). Items 2 and 12 below describe in detail the information collection requirements contained in subpart F.

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.

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

§1915.83 Utilities

Paragraph (a)(1) requires employers to obtain a written or oral determination from a responsible vessel's representative, a contractor, or any other person who is qualified by training, knowledge, or experience to make such a determination, that the working pressure of the vessel's steam piping system is safe .

OSHA believes that obtaining an oral or written determination of the safe working condition of the pressure for the vessel's steam piping system is a normal exchange of information between an engineer and a technician. Therefore, there is no burden associated with this collection of information requirement (see 5 CFR 1320.3(b)(2)).

Paragraph (c)(3) requires employers to obtain a written or oral determination from a responsible vessel's representative, a contractor, or any other person who is qualified by training, knowledge, or experience to make such determination, that each circuit to be energized is in a safe condition. OSHA believes that obtaining an oral or written determination of each circuit energized is a usual and customary practice when determining the safe condition. Therefore, there is no burden associated with this collection of information requirement (see 5 CFR 1320.3(b)(2)).

§1915.87 Medical Services and First Aid

First Aid Providers

Paragraph (c)(5) requires employers to ensure that there are an adequate number of trained first aid providers at each worksite during each workshift, and that any worker designated to provide first aid maintains current first aid and CPR certifications, such as issued by the Red Cross, American Heart Association, or other equivalent organization. Employees with up-to-date firstaid knowledge ensure that injured employees receive appropriate intervention in the timeliest manner possible.

OSHA believes that the first aid training and certificate requirement is similar to performanceoriented training requirements, and, therefore, imposes no burden hours or costs. The final rule is designed to give employers the maximum flexibility in meeting this requirement. The employer does not prepare the first-aid certificate, and it is a usual and customary practice for associations such as the American Red Cross, and American Heart Association, to provide certificates to those individuals that have attended and satisfactorily completed first aid training.

Marking Location of Basket Stretchers

Paragraph (f)(3) requires employers to store basket stretchers, or the equivalent, and related equipment (for example, restraints, blankets) in a clearly marked location in a manner that prevents damage, and protects the equipment from environmental conditions. Marking stretchers and their related equipment locations will make them easily located in the event of an emergency.

§1915.88 Sanitation

Marking Non-potable Water Supplies

Paragraph (c)(2) requires employers to clearly mark non-potable water supplies and outlets as "not safe for health or personal use." Marking such supplies ensures that workers do not accidentally ingest unhealthy water. OSHA provides the specific language to the employer for public disclosure; therefore, this is not a collection of information under 5 CFR 1320.3(c)(2).

Informing Employees to Wash Hands and Face

Paragraph (e)(3) requires employers to inform each employee engaged in the application of paints or coatings or in other operations where hazardous or toxic substances can be ingested or absorbed about the need for removing surface contaminants from the surface of their skin by thoroughly washing their hands and face at the end of the workshift and prior to eating, drinking, or smoking. This requirement has been a usual and customary practice in shipyard employment since adopted by OSHA in 1972. Pursuant to section 6(a) of the OSH Act, which allowed the Agency in the first two years after enactment of the Act to adopt as OSHA standards existing Federal and national consensus standards (37 FR 22458 (10/19/1972)), OSHA adopted this provision from safety standards promulgated under the Longshore and Harbor Workers' Compensation Act (33 U.S.C. 941). Therefore, OSHA believes this is a normal activity and there are no burden hours or costs for this provision.

Informing workers to wash their hands and face helps ensure workers will not overlook taking the necessary precaution to avoid exposure to potentially hazardous substances. This can be accomplished by posting a sign in the workplace, training new workers of the requirement, or by posting the information in bathrooms as a reminder for workers to wash their hands.

§1915.89 Control of Hazardous Energy (Lockout/Tags-plus)

Developing Lockout and Tags-plus Program

Paragraph (b) requires that employers establish and implement a written program and procedures for the use of lockout and tags-plus systems to control hazardous energy during the servicing of any machinery, equipment, or system in shipyard employment. This program must include the following:

(1) Procedures for lockout/tags-plus systems while servicing machinery, equipment, or systems in accordance with paragraph (c);

(2) Procedures for protecting employees involved in servicing any machinery, equipment, or system in accordance with paragraphs (d) - (m);

(3) Specification for locks and tags-plus hardware in accordance with paragraph (n);

(4) Employee information and training in accordance with paragraph (o);

- (5) Incident investigations in accordance with paragraph (p); and
- (6) Program audits in accordance with paragraph (q).

This information is needed so that the lockout/tags-plus coordinator can effectively oversee all lockout/tags-plus applications prior to the maintenance and repair of any machinery, equipment, or system, which will ensure the safety of each authorized and affected employee.

Paragraph(c)(3) requires the employer to ensure the use of a tags-plus system to prevent energization or startup, or the release of hazardous energy, before any servicing is started if an energy-isolating device is not capable of being locked.

Paragraph (c)(4)(i) requires that a tag be affixed to each energy-isolating device that is secured.

Lockout and Tags-plus Log

Paragraph (c)(7)(iv) requires employers to ensure that the lockout/tags-plus coordinator maintains and administers a continuous log of each lockout and tags-plus system. The log shall contain:

- (A) Location of machinery, equipment, or system to be serviced;
- (B) Type of machinery, equipment, or system to be serviced;
- (C) Name of the authorized employee applying the lockout/tag s-plus system;
- (D) Date that the lockout/tags-plus system is applied;
- (E) Name of the authorized employee removing the lock or tags-plus system; and
- (F) Date that lockout/tags-plus system is removed.

Note to paragraph (c)(7)

The note to paragraph (c)(7) gives an exemption to employers, stating that when the military ship's force serves as the lockout/tags-plus coordinator and maintains control of the lockout/tags-plus log, the employer need not comply with the requirements in paragraph (c)(7) when coordination between the ship's force and the employer occurs to ensure that applicable lockout/tags-plus procedures are followed and documented.

Lockout and Tags-plus Written Procedures

Paragraph (d)(1) requires the employer to establish and implement written procedures to prevent energization or startup, or the release of hazardous energy, during the servicing of any machinery, equipment, or system. Each procedure shall include:

(i) A clear and specific outline of the scope and purpose of the lockout/tags-plus procedure;

(ii) The means the employer will use to enforce compliance with the lockout/tags-plus program and procedures; and

(iii) The steps that must be followed for:

(A) Preparing for shutting down and isolating the machinery, equipment, or system to be serviced, in accordance with paragraph (e);

(B) Applying the lockout/tags-plus system, in accordance with paragraph (f);

(C) Releasing hazardous energy and verifying isolation, in accordance with paragraph (g);

(D) Testing the machinery, equipment, or system, in accordance with paragraph (h);

(E) Removing lockout/tags-plus systems, in accordance with paragraph (i);

(F) Starting up the machinery, equipment, or system that is being serviced, in accordance with paragraph (j);

(G) Applying lockout/tags-plus systems in multiple-employee servicing operations, in accordance with paragraph (k);

(H) Addressing multi-employer worksites involved in servicing any machinery, equipment, or system, in accordance with paragraph (l); and

(I) Addressing shift or personnel changes during servicing operations, in accordance with paragraph (m).

Note to paragraph (d)(1)

The note to paragraph (d)(1) specifies that the employer need only develop a single procedure for a group of similar machines, equipment, or systems if the machines, equipment, or systems have the same type and magnitude of energy and the same or similar types of controls, and if a single procedure can satisfactorily address the hazards and the steps to be taken to control these hazards.

Procedures for Shutdown and Isolation

Paragraph (e)(1)(ii) requires employers to notify each affected employee that the machinery, equipment, or system will be shutdown and deenergized prior to servicing, and that a lockout/tags-plus system will be implemented.

Note to paragraph (e)

Note to paragraph (e) states that when the Navy ship's force shuts down any machinery, equipment, or system, and relieves, disconnects, restrains, or otherwise renders safe all potentially hazardous energy that is connected to the machinery, equipment, or system, the employer will be in compliance with the requirements in paragraph (e) when the employer's authorized employee verifies that the machinery, equipment, or system being serviced has been properly shut down, isolated, and deenergized.

Procedures for Removal of Lockout and Tags-plus Systems

Paragraph (i)(1)(i) requires the authorized employee to notify all other authorized and affected employees that the lockout/tags-plus system will be removed before physically removing any lockout/tags-plus system and restoring the machinery, equipment, or system to use.

Procedures for Multi-employer Worksites

Paragraph (l)(1) requires that the host employer establish and implement procedures for the lockout/tags-plus program to protect workers from hazardous energy in multi-employer worksites.

Paragraph (l)(2) requires the host employer inform each contract employer about the content of the host employer's lockout/tags-plus program and procedures; instruct each contract employer to follow the host employer's lockout/tags-plus program and procedures; and ensure that the lockout/tags-plus coordinator knows about all servicing operations and communicates this information with each contract employer who performs servicing or works in an area where servicing is being conducted.

Paragraph (1)(3) requires the contract employer, when working in a multi-employer worksite, to follow the host employer's lockout/tags-plus program and procedures, and ensure that the host employer knows about the lockout-tags plus hazards associated with the contract employer's work, and what the contract employer is doing to address the hazards. In addition, the contract employer must inform the host employer of any previously unidentified lockout/tags-plus hazards that the contract employer identifies at the multi-employer worksite.

These provisions ensure that there is an exchange of information between the host employer and the contract employer before servicing begins. This exchange of knowledge prevents any misunderstanding regarding the implementation of lockout or tags-plus procedures, and the use of lockout or tags-plus devices for a particular application. The exchange of information between the host employer and the contract employer is usual and customary practice that is included in the initial lockout tags-plus procedures.

Lockout and Tags-plus Devices

Paragraph (n)(3)(iv) requires that each lock and tag to indicate the identity of the authorized employee applying it. Paragraph (n)(3)(v) requires that each tag warn against hazardous

conditions that could arise if the machinery, equipment or system is energized. In addition, the tag must include a legend such as one of the following: <u>Do Not Start; Do Not Open; Do Not</u> <u>Close; Do Not Energize; Do Not Operate</u>.

This provision provides safe work practice to authorized employees applying the lockout/tagsplus devices by giving the identity of the person applying it and warning against hazards that might exist.

Employee Training and Training Certification

Paragraphs (o)(1), (o)(2), and (o)(6) require that the employer provide initial training, as well as retraining as necessary, to ensure that workers understand the purpose and function of the energy- control program and acquire the knowledge and skills necessary for the safe application, use, and removal of energy controls. Further, employers must provide retraining to authorized and affected employees when the energy-control procedures are changed, when a change in job assignment occurs, or when a change in equipment presents a new hazard. Additional retraining also must be provided when an inspection reveals, or the employer has reason to believe, that there are deviations from, or inadequacies in, the employee's knowledge or use of the energy-control procedures. Retraining must reestablish proficiency and describe any new or revised control methods and procedures, as necessary.

The details of the training (for example, amount and type of training) or retraining may vary depending on factors such as the employee's job duties under the energy-control program and the complexity of the equipment or lockout/tags-plus procedures. The relative degree of knowledge that authorized, affected, and other employees (for example, the lockout/tags-plus coordinator) must acquire also varies. Authorized employees are required to receive the most extensive training because of their responsibility for implementing energy-control procedures (applying lockout and tags-plus devices) and performing servicing operations. Paragraph (o)(3) describes requirements for additional training for affected employees; and paragraph (o)(4) describes requirements for additional training for authorized employees; and paragraph (o)(5) describes requirements for additional training for lockout/tags-plus coordinators.

The training requirements include recognition of hazardous-energy sources; the understanding the purpose and function of the energy-control procedures; and knowledge and skills necessary to implement the safe application, use and removal of energy controls. This knowledge enables employees to prevent serious accidents by using appropriate control procedures in a safe manner to isolate the hazards. Since the training requirement is performance-oriented, no burden hours or costs are attributed to this provision under Item 12 of this supporting statement.

Paragraph (o)(7) requires the employer to prepare training records that document the accomplishment of the employee training and designate that the training is current. The training certification shall contain at least the employees' name, date of training, and subject of training. The requirement for employers to maintain written certification of their employees' training helps employers keep track of the training the employees have.

Incident Investigations

Paragraph (p)(2) requires that the employer promptly, but not later than 24 hours following the incident, initiate an incident investigation and notify each employee who was, or could have been, reasonably affected by the incident.

Paragraph (p)(4) requires the employer to prepare a written report of the incident investigation that must include: (i) the date and time of the incident; (ii) the date and time the incident investigation began; (iii) the location of the incident; (iv) a description of the incident; (v) the factors that contributed to the incident; and (vi) a copy of any lockout/tags-plus log that was current at the time of the incident; and (vii) any corrective actions that need to be taken as a result of the incident. Paragraph (p)(5) requires the employer to review the written incident report with each employee whose job tasks are relevant to the incident investigation findings, including contract employees when applicable. In accordance with paragraph (p)(6), the employer must ensure that the incident investigation and written report are completed, and all corrective actions implemented, within 30 days following the incident.

Paragraph (p)(7) requires the employer to prepare a written abatement plan if it is determined infeasible to implement all of the corrective actions within 30 days. The abatement plan must contain an explanation of the circumstances causing the delay, a proposed timetable for the abatement, and a summary of the steps the employer is taking in the interim to protect employees from hazardous energy while servicing machinery, equipment, or systems.

Auditing of the Energy Control Procedures

Paragraph (q)(1) requires the employer to conduct an audit of their current lockout/tags-plus program and procedures, at least annually. This is to ensure that the procedures and requirements of the final rule are being followed, and that any deficiencies are being corrected.

Paragraph (q)(3) requires the employer to ensure that the audit includes:(i) a review of the written lockout/tags-plus program and procedures; (ii) a review of the current lockout/tags-plus log; (iii) verification of the accuracy of the lockout/tags-plus log; and (iv) a review of incident reports since the last audit. OSHA believes the review of audits by employers is usual and customary and, therefore, will not impose a paperwork burden.

Paragraph (q)(4) requires the employer to prepare a written audit report that includes at least: (i) the date of the audit; (ii) the identity of the individual(s) who performed the audit; (iii) the identity of the procedure, and machinery, equipment, or system being audited; (iv) the findings of the program audit and recommended actions to correct any deviations or deficiencies identified during the audit; (v) any incident investigation reports since the previous audit; and (vi) descriptions of corrective actions the employer has taken in response to the findings and recommendations.

Conducting an audit of the energy-control procedures will ensure that the procedures in place are working properly and help to identify any deviations or inadequacies with the current procedures.

Recordkeeping

Paragraph (r)(1) specifies in Table F-3 what records the employer must retain and how long they must be retained:

The employer must keep the following records	For at least
(i) Current lockout/tags-plus program and procedures	Until replaced by updated program and procedures
(ii) Training records	Until replaced by updated records for each type of training
(iii) Incident investigation reports	Until the next program audit is completed
(iv) Program audit report	12 months after being replaced by the next audit report

Table F-3 to Subpart F – Retention of Records Required by § 1915.89

Paragraph (r)(2) directs employers to make all records required by the final rule available to employees, their representatives, and the Assistant Secretary in accordance with the procedures and time periods specified in 29 CFR 1910.1020(e)(1) and (e)(3).

§1915.92 Retention of DOT Markings, Placards, and Labels

Paragraphs (a) and (b) require that employers retain labels and markings on any hazardous materials or freight containers, rail freight cars, motor vehicles, or transportation vehicles that the U.S. Department of Transportation regulations require to be marked until the hazardous materials are sufficiently removed, and free of any residue and any vapors purged to prevent potential hazards. This would apply regardless of whether the shipyard receives the hazardous materials in packages or in bulk. Employers need not affix labels to freight containers, rail freight cars, motor vehicles, or transportation vehicles that already have labels and markings that designate their containment of hazardous materials. As such, OSHA does not believe this requirement will impose paperwork burdens or costs on shipyard employers.

Paragraph (c) requires that the markings, placards, and labels on the hazardous materials be maintained so that they are "readily visible." This requirement does not impose paperwork burdens or costs on shipyard employers.

Paragraph (d) informs employers that for non-bulk packages that will not be reshipped, the requirements of this section are met if a label or other acceptable marking is affixed in accordance with 29 CFR 1910.1200, Hazard Communication. Labels serve as a means to notify employers and employees about the presence of hazardous materials in their immediate work

area.

§1915.93 Motor Vehicle Safety Equipment, Operation, and Maintenance

Paragraph (a)(3) of this section requires employers to comply with the maintenance, inspection, operation, and training requirements in §1910.178 for powered industrial trucks, which already applies to shipyard employment. The burden hour and costs are included in the Powered Industrial Truck information collection request (ICR) (OMB control number 1218-0242).²

§1915.94 Servicing Multi-piece and Single Piece Rim Wheels

Section 1915.94 incorporates by reference the general industry standard (§1910.177) and nonmandatory appendices on servicing multi-piece and single piece rim wheels. Paragraph (d)(3)(iv) of the general industry standard requires that when defective restraining devices and barriers are removed from service, they must not be returned to service until they are repaired and reinspected. If the repair is structural (for example, component replacement or rewelding), the manufacturer or a Registered Professional Engineer must certify that the strength requirements specified in (d)(3)(i) of the standard have been met. The burden hours and costs for shipyards complying with this requirement are already included in the Multi-Piece and Single Rim Wheel ICR (1218-0219). The burden hour and costs estimates in the Multi-Piece and Single Rim Wheel ICR are based on discussions with the Tire Industry Association and a manufacturer of restraining devices. In addition, the Tire Industry Association and manufacturer of restraining devices reported that few damaged restraining devices and/or barriers are repaired. Given this, OSHA estimated that approximately eight damaged devices and barriers are annually repaired. OSHA believes this estimate is inclusive of shipyards.

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 when establishing and maintaining the required records. To satisfy the goal of reduced employer burden, the Agency has written the subpart F requirements in performance-oriented language (i.e., in terms of <u>what</u> data to collect, not <u>how</u> 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 A.2 above.

The requirements to collect and maintain information are specific to each employer and the 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).

²See Final Rule for General Working Conditions in Shipyard Employment.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The information collection requirements in subpart F 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 subpart F are the minimum frequencies necessary to effectively 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 in the OSH Act (29 U.S.C. 651).

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-inaid, 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;
- 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 set forth 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.

OSHA published the proposed rule on December 20, 2007 (72 FR 72452). In accordance with the Paperwork Reduction Act of 1995 (PRA-95) (44 U.S.C. 3506(c)(2)), the proposed regulation solicited public comments on the *General Working Conditions in Shipyard Employment (29 CFR 1915, subpart F)* Information Collection Request (ICR) (paperwork burden hour and cost analysis) for the proposal. The Department also submitted this ICR to OMB for review in accordance with 44 U.S.C. 3507(d) on December 20, 2007. On February 15, 2008, OMB informed the Department of Labor to use OMB Control Number 1218-0259 in future paperwork submissions involving this rulemaking. OMB also commented, "This OMB action is not an approval to conduct or sponsor an information collection under the Paperwork Reduction At of 1995." OMB also stated that "OMB will review the proposed collection again in parallel with the final regulation prior to approval."

The final General Working Conditions in Shipyard Employment Standard contains collection of information requirements (paperwork) that are subject to review by the Office of Management and Budget (OMB). The Department of Labor submitted the final ICR to OMB for approval. A copy of the ICR is available at <u>http://www.reginfo.gov</u>. OSHA will publish a separate notice in the **Federal Register** that will announce the results of that review. The Department of Labor notes that a Federal agency cannot conduct or sponsor a collection of information unless it is approved by OMB under the PRA-95, and displays a currently valid OMB control number. Also, notwithstanding any other provision of law, no employer shall be subject to penalty for failing to comply with a collection of information if the collection of information does not display a currently valid OMB control number.

OSHA received no public comments on the *General Working Conditions in Shipyard Employment (29 CFR 1915, subpart F)* ICR. However, based on the rulemaking record OSHA did modify the ICR. These modifications are discussed below.

In paragraph (c)(7)(iv), OSHA specified six items that the coordinator must maintain in the log, including: the location and the type of the machinery, equipment, or system (paragraphs (c)(7)(iv)(A) and (B)); the name of the authorized employee applying the lockout/tag-plus system (paragraph (c)(7)(iv)(C)); the date that the lockout/tags-plus system was applied (paragraph (c)(7)(iv)(D)); the name of the authorized person removing the lock or tags-plus system (paragraph (c)(7)(iv)(E)); and the date that the lockout/tags-plus system was removed (c)(7)(iv)(F)). This information is needed so that the lockout/tags-plus coordinator can effectively oversee all lockout/tags-plus applications prior to servicing operations to ensure the safety of each authorized and affected employee. Inclusion of this information in the log will permit the coordinator to know, at all times, which systems are under lockout/tags-plus and which authorized person is responsible for each lockout/tags-plus application. This requirement was not proposed; however, testimony was heard stating that employers do use some sort of a

lockout/tags-plus log to collect the abovementioned information. For example, Trident Seafoods when asked if they use some sort of documentation, such as a lockout/tags-plus log, as part of their control of hazardous energy program, they stated "We have logs. I can't say it's for across to our smaller vessels, but our larger vessels do have lockout/tagout logs" (Ex. 199, pp. 178-179).

Paragraph (d) – Lockout/tags-plus written procedures.

Paragraph (d), Lockout/tags-plus written procedures, is a departure from the proposal (§ 1915.89(b)(4)), which was based on the general industry standard. Changes from the proposal primarily involve the recognition that servicing machinery, equipment, and systems in the shipyard environment often entails complexities that require a different approach regarding documentation of procedures.

Paragraph (d)(1) requires that employers establish and implement written energy-control procedures to prevent energization or startup, or the release of hazardous energy, during the servicing of machinery, equipment, or systems. This provision was proposed as paragraph (b)(4)(i). The written procedures must include all information employees must know in order to control hazardous energy during servicing.

OSHA received several comments requesting clarification whether OSHA was proposing to require a written procedure for every machine, piece of equipment, or system. Accordingly, a group of commenters, including Lake Union Drydock Company, American Seafoods Company, Puget Sound Shipbuilders, Dakota Creek Industries, North Pacific Fishing Vessel Owners Association, and iWorkWise, inquired: "How are they to require or generate such written procedures for all equipment when as shipyards they will not work on most of it, and they have no control over the existing equipment installations?" (Exs. 101.1; 105.1; 124; 126; 128; 130.1). Prowler LLC and Ocean Prowler LLC commented: "Will [ship]yards have to write procedures for every piece of equipment they work on?" (Ex. 100).

As OSHA stated in the proposal the standard does not require separate procedures to be written for each and every piece of equipment (72 FR 72452, 72493, Dec. 20, 2007). Similar machines and/or equipment (such as those using the same type and magnitude of energy) that have the same or similar types of controls can be covered with a single procedure. For example, employers may develop one set of procedures for all steering gear systems, ship's lighting systems, ship's refrigeration systems, fire-suppression systems, grinders, or lathes if the type and magnitude of energy and type of controls are the same or similar for the particular systems, and as long as the procedure satisfactorily addresses hazards and the steps that must be taken to control these hazards. However, if unique conditions are present, such as multiple energy sources or different means of connection, then the employer must develop specific energycontrol procedures to address these conditions to ensure that employees are protected. For example, if a system requires that a unique shutdown sequence be followed, specific energycontrol procedures will be required for that system.

OSHA added a note to paragraph (d)(1), specifically addressing this issue, which explains that employers only need to develop a single procedure for a group of similar machines, equipment,

and systems if the machines, equipment, or systems have the same type and magnitude of energy and the same or similar type of controls, and if a single procedure can satisfactorily address the hazards and the steps to be taken. Under those circumstances, a separate procedure need not be written for each and every machine or piece of equipment.

Prowler LLC and Ocean Prowler LLC asked the following question: "If the ship has not clearly labeled their equipment or disconnects, will the [ship] yard then have to write a procedure prior to working on it as they are not 'readily identifiable'?" (Ex. 100). OSHA believes that whether a vessel undergoing repair is in a shipyard for a few weeks, a few months, or a few years, it is the responsibility of the shipyard employer to develop procedures that will cover all machinery, equipment, or systems on which it will perform servicing operations. OSHA understands that vessels typically do not return for repairs to the shipyards in which they were built, and that some vessels, particularly foreign-built vessels, may have components that are difficult to identify. However, the release of hazardous energy is a serious hazard, and OSHA concludes that employers must not exclude any machinery, equipment, or systems from their lockout/tags-plus programs. In this regard, it is the employer's responsibility to correctly identify all energy sources and the means to control them. When the shipyard employer cannot identify and control all energy sources, the entire systems may need to be shut down.

Manitowoc Marine Group described how its employees assist in this process: What we have tried to do is we have tried to somewhat model the general industry to a point. We will identify the energy sources as best we can with the crew. We usually have the crew members with us, walking through the processes. And what we try to do with this is, we identify a "boat boss," for lack of better phrase. He will actually shut the entire systems down, because in most cases, we are not working with the systems. We are doing physical repair of the vessel. All of these complex systems and beltings are all locked out physically, from pneumatics, hydraulics, whatever the case may be, identified, and placement of the locks (Ex. 168, pp. 110-111).

Paragraph (d)(1)(i) requires that the written energy control procedures include a clear and specific outline of the scope and purpose of the lockout/tags-plus procedures. As proposed (proposed paragraph (b)(4)(ii)), this provision would have required the procedure to have an outline of the scope, purpose, authorization, rules, techniques used to control hazardous energy, and the means to enforce compliance. After reviewing accident reports, comments, and testimony on conditions in shipyard employment, OSHA concluded that requiring documentation of the authorization and rules regarding the control of hazardous energy is not necessary or appropriate. However, because the consequences of the release of hazardous energy can be serious, the Agency included the provision requiring a means of enforcement in paragraph (d)(1)(ii) of this final rule; this paragraph addresses the employer's enforcement responsibility. This requirement does not specify how an employer must enforce employee compliance with the lockout/tags-plus program and procedures, only that the employer must do so. OSHA made this requirement performance-based, allowing employers to establish disciplinary programs that will be effective under the unique conditions of each shipyard. OSHA believes this requirement will ensure that employers and employees understand the importance of following the established lockout/tags-plus procedures. At the same time, this provision will provide employers with flexibility to tailor their enforcement programs to their shipyard

conditions.

Paragraph (d)(1)(iii) requires employers to provide the steps employees must follow when using each of the procedures specified by paragraphs (d)(1)(iii)(A) through (I). OSHA included paragraphs (A) through (E) in the proposal. These paragraphs specify, respectively, the following procedures: preparations for shutting down and isolating the machinery, equipment, or system to be serviced in accordance with paragraph (e) of this section; application of the lockout/ tags-plus system in accordance with paragraph (f) of this section; verification of isolation in accordance with paragraph (g); testing the machinery, equipment, or system in accordance with paragraph (h); and removing lockout/tags-plus systems in accordance with paragraph (i).

In addition to these procedures, OSHA added the procedures specified by paragraphs (d)(1)(iii)(F) through (I) to the final standard. Accordingly, employers are to provide the steps employees must follow when using each of these procedures. Paragraphs (F) through (I) specify: starting up the machinery, equipment, or system in accordance with paragraph (j) of this section; applying lockout/tags-plus systems in group servicing operations in accordance with paragraph (k); addressing multi-employer worksites involved in servicing machinery, equipment, or systems in accordance with paragraph (l); and addressing shift or personnel changes during servicing operations in accordance with paragraph (m).

During the Washington, DC, public hearing, Northrop Grumman--Newport News emphasized the benefit of training employees on their procedures, further illustrating how important a single set of standards can be:

They [land-side employees] do go on-board and often the workload shifts, we will bring work into the shops and we will work in the shops, and we will take it back and reinstall it, so there is some movement back and forth between shop and ship, so it's not like there is never the twain shall meet. Furthermore, as there has been integration, for example, Newport News has been integrated with our Gulf Coast yards, and we are moving people back and forth between the Gulf yards and Newport News, and we think it is important, if we can get there, to have a consistent set of standard or standards that would apply across the board, so I don't have to retrain Gulf employees in my procedures and/or vice versa (Ex. 168, pp. 264-265).

OSHA agrees that, by establishing procedures that include all of the steps necessary for identifying each source of hazardous energy, applying the lockout/tags-plus system, releasing the energy, testing the equipment, removing the lockout/tags-plus system, and starting up the machinery, equipment, or system, the employer will have a comprehensive and easy-to-administer lockout/tags-plus program. In addition, employers will be able to establish the basic provisions of a lockout/tags-plus program throughout their facilities and with the entire workforce, which OSHA believes will enable employees to better protect themselves.

OSHA acknowledges that circumstances may arise when an employer must develop specific procedures that apply to only one work situation. Manitowoc Marine Group testified on a recent procedure it developed:

We just recently developed a lockout procedure specifically for a self-unloading belt system, because of a potential that we did discover. But that is only as good as that system for that vessel. And that is where I guess where we struggle the most is the different types of exotic systems that come in here, identifying and

developing the procedures. It will be wonderful if we identify all of these vessels and have all these procedures in place, and they would come back year after year. But as you well know, those things change season to season (Ex. 168, p. 111).

Paragraph (l)(1) requires that the host employer establish and implement procedures to protect employees from hazardous energy in multi-employer worksites. The procedures must specify the responsibilities for both the host employer and the contract employer(s). The responsibilities of the host employer are established in § 1915.89(l)(2). Paragraph (l)(2)(i) requires the host employer to inform each contract employer about the contents of the host employer's lockout/tags-plus program and procedures, which may also include training. The host employer, in conjunction with the contract employers, must decide which employees to train. These new provisions were included in the final rule in response to comments requesting clarification of the roles of shipyard employers and contractors in lockout/tags-plus situations. Further, several other comments were received stating that the host employer, and not the contract employer, should be responsible for lockout/tags-plus. American Seafoods commented "The employees or contractors who perform work on a particular system are unlikely to have the capability of identifying all energy sources, either initially based on engineering drawings and schematics or physically on the ship" (Ex. 105.1). Manitowoc Marine Group testified that it will train employees of contract employers when necessary:

And I have even seen cases where you will have another company -- this is really important about the multi-employer work site where you actually have to deal with these other employees so that they know there are other ways -- even if you lockout, there are other ways to bypass some of these older systems and energize. So it is very important that we not only train our employees and safeguard them against the energies, we have to come in and train the contractors and actually get them, with our supervision, to understand what they are doing, what their processes are, and put in place our best practices (Ex. 168, pp113-114).

Paragraph (l)(2)(ii) requires that the host employer instruct each contract employer to follow the host employer's lockout/tags-plus program and procedures. Shipyard employers provided testimony on how they are already implementing this requirement at their facilities.

Other comments received further codify that many shipyards are already successfully controlling hazardous energy by requiring contractors to follow the host employer's procedures. For example, Bath Iron Works explained how contract employers must comply with Bath Iron Works' program, and report to Bath's system experts to apply a lock or tags-plus system:

Under our program at Bath . . . we have contractors come in, but they follow our standard, we have systems experts located within a facility on those halls that control hazardous energy. For example, our electricians, we have 500 electricians in the plant. Only 50 of those, 45 or 50 are what we call system experts. So, anytime anybody works on those ships, whether it is our own employees, contractors, vendors, anybody, they have to follow the guideline and the authority of that particular ship system expert. So, we lockout, we will tagout that particular system for that contractor. He validates it, so do we (Ex. 168, p. 252).

Paragraph (l)(3) requires the contract employer, when working in a multi-employer worksite, to follow the host employer's lockout/tags-plus program and procedures, and ensure that the host employer knows about the lockout-tags plus hazards associated with the contract employer's work, and what the contract employer is doing to address the hazards. In addition,

the contract employer must inform the host employer of any previously unidentified lockout/tags-plus hazards that the contract employer identifies at the multi-employer worksite. Manitowoc Marine Group provided testimony regarding how it interacts with contract employers, and particularly how its shipyards obtains information regarding the work the contractor employer will perform, when it first arrives at the worksite:

When they come on site, we have a quick orientation with everybody that steps in the facility, myself or any of my staff will actually, once the general orientation is over with, try to get a grasp of what their work scope is, to identify the different processes. And if it is identified that there will be a lockout procedure or work near equipment that has been locked out, we will go through our process, what we expect, and ensure that they follow our procedure (Ex. 168, p. 124).

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

The Agency will <u>not</u> provided payment 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.

No elements of confidentiality are involved.

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 subpart F require the collection of sensitive information.

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

- Indicate 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. Generally 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 burden estimates for each form and aggregate the hour burdens in Item 13.
- 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 13.

Burden-Hour and Cost Determinations

The burden hours and estimated costs used in this ICR are based primarily on the Final Economic Analysis (FEA) of the final rule prepared by OSHA's Office of Regulatory Analysis. Table 9 summarizes the burden hours and costs associated with each provision in the final rule that contains a paperwork requirement.

Wage Rates

The wage rates below, which include benefits, are also from the FEA.

- Supervisors (\$32.98 per hour for shipyards, \$44.13 per hour for water transportation, \$33.53 per hour for fish processing, \$20.37 per hour for commercial fishing)
- Authorized Workers (\$23.72 per hour for shipyards, \$46.46 per hour for water transportation, \$31.78 per hour for fish processing, \$16.30 per hour for commercial fishing))
- Affected Workers (\$19.51 per hour per hour for shipbuilding and repair establishments; \$30.58 for water transportation, \$18.09 per hour for fish-processing vessels, and \$16.30 per hour for commercial fishing)
- Secretary (\$17.54 per hour)
- Shipyard workers (\$26.51 per hour)

Burden Hour and Cost Determinations

The following sections summarize the methodology used for estimating the number of burden hours and costs resulting from the paperwork requirements contained in the Final.

§1915.87 Medical services and first aid (marking location of stretchers)

Paragraph (f)(3) requires employers to store basket stretchers, or the equivalent, and related equipment (for example, restraints, blankets) in a clearly marked location in a manner that prevents damage and protects them from environmental conditions. OSHA believes that most of the existing stretcher locations are already marked. The Agency assumes that 10% of the 179 shipyards (size class 20 and above) may need to mark additional locations of stretchers and that a shipyard employee earning \$26.51 an hour would take 10 minutes (.17 hour) per shipyard to develop or copy and post a sign marking the location of all the stretchers in the entire shipyard. Again, burden hours to develop would be minimal as most shipyards already have developed the stretcher location signs.

Burden hours: 18 shipyards x .17 hour = 3 hours **Cost**: 3 hours x \$26.51 = \$80 Similarly, OSHA believes no more than 10% of the 179 shipyards would need to annually prepare or replace stretcher location signs. The number of stretchers would be limited, and no new information would need to be developed; therefore, it is estimated that these shipyards would only expend 10 minutes (.17 hour) to repost the location signs.

Burden hours: 18 shipyards x .17 hour = 3 hour **Cost**: 3 hour x \$26.51 = \$80

§1915.89 Control of Hazardous Energy (lockout/Tags-plus)

Developing Lockout/Tags-plus Procedures

Paragraph (b) requires that employers develop and implement written programs and procedures for the control of hazardous energy when employees are engaged in the servicing of any machinery, equipment, or system in shipyard employment. Paragraph (d)(1) requires the employer to establish and implement written procedures to prevent energization or startup, or the release of hazardous energy, during the servicing of any machinery, equipment, or system. The class size of the establishment determines how many hours a supervisor takes to develop, document, and maintain the hazardous-control procedures.

Paragraph (l)(1) requires the host employer to establish and implement lockout/tags-plus procedures to protect workers from hazardous energy in multi-employer worksites.

Paragraph (1)(3) requires the contract employer, when working in a multi-employer worksite, to follows the host employer's lockout/tags-plus program and procedures, and ensure that the host employer knows about the lockout-tags plus hazards associated with the contract employer's work, and what the contract employer is doing to address the hazards. In addition, the contract employer must inform the host employer of any previously unidentified lockout/tags-plus hazards that the contract employer identifies at the multi-employer worksite.

The Agency estimates that, on a yearly basis, a supervisor takes from 2 hours to 80 hours, depending on the size of the affected establishment, to develop and implement procedures. Table 1, *Initial Burden Hours and Costs for Energy Control Procedures*, provides the number of affected establishments in each size class and the burden hours and costs to develop initial control procedures for each size establishment.

	Size Class	Affected Establishments	Time in Hours	Total Hours	Supervisor's Wage Rate	Cost
Chinesendo	1000 e U.				0	\$26.294
Shipyards	1000 & Up	40	20	800	\$32.98	\$26,384
	500-999	25	20	500	\$32.98	\$16,490
	200-499	32	80	2,560	\$32.98	\$84,429
	100-199	51	40	2,040	\$32.98	\$67,279
	20-99	31	12	372	\$32.98	\$12,269
Offsite	20-99*	85	12	1,020	\$32.98	\$33,640
	1 – 19*	371	2	742	\$32.98	\$24,471
Commercial Fishing	1000 & Up	7	20	140	\$20.37	\$2,852
	500-999	3	20	60	\$20.37	\$1,222
	200-499	1	80	80	\$20.37	\$1,630
	100-199	8	40	320	\$20.37	\$6,518
	20-99	25	12	300	\$20.37	\$6,111
	1-19	1,076	2	2,152	\$20.37	\$43,836
Fish Processing	1000 & Up	22	20	440	\$33.53	14,753
	500-999	6	20	120	\$33.53	\$4,024
	200-499	11	80	880	\$33.53	\$29,506
	100-199	17	40	680	\$33.53	\$22,800
	20-99	46	12	552	\$33.53	\$18,509
	1-19	98	2	196	\$33.53	\$6,572
Tug & Towing Services	1000 & Up	45	20	900	\$44.13	\$39,717
	500-999	27	20	540	\$44.13	\$23,830
	200-499	8	80	640	\$44.13	\$28,243
	100-199	13	40	520	\$44.13	\$22,948
	20-99	88	12	1,056	\$44.13	\$46,601
	1-19	468	2	936	\$44.13	\$41,306
Passenger Vessels	20-99	20	12	240	\$44.13	\$10,591
й (Р	1-19	101	2	202	\$44.13	\$8,914
	TOTAL	2,725		18,988		\$645,445
*Thasa astahl		h are shipyard contr	actors and s	/	will either develo	

Table 1Initial Burden Hours and Costs for
Energy-Control Procedures

The Agency also estimates that, on a yearly basis, a supervisor takes from 30 minutes (.50 hour) to 20 hours, depending on the size of the affected establishment, to inspect and update procedures. Table 2, *Recurring Annual Burden Hours and Costs for Energy Control Procedure*

Updates, provides the number of affected establishments in each size class and the burden hours and costs for each size establishment.

	Size Class	Affected Establishments	Time in Hours	Total Hours	Supervisor's Wage Rate	Cost
Shipyards	1000 & Up	40	20	800	\$32.98	\$26,38
~FJ	500-999	25	20	500	\$32.98	\$16,49
	200-499	32	20	640	\$32.98	\$21,10
	100-199	51	12	612	\$32.98	\$20,18
	20-99	31	4	124	\$32.98	\$4,09
Offsite	20-99*	85	4	340	\$32.98	\$11,21
	1 – 19*	371	0.5	186	\$32.98	\$6,13
Commercial Fishing	1000 & Up	7	20	140	\$20.37	\$2,85
0	500-999	3	20	60	\$20.37	\$1,22
	200-499	1	20	20	\$20.37	\$40
	100-199	8	12	96	\$20.37	\$1,95
	20-99	25	4	100	\$20.37	\$2,03
	1-19	1,076	0.5	538	\$20.37	\$10,95
Fish Processing	1000 & Up	22	20	440	\$33.53	\$14,75
0	500-999	6	20	120	\$33.53	\$4,02
	200-499	11	20	220	\$33.53	\$7,37
	100-199	17	12	204	\$33.53	\$6,84
	20-99	46	4	184	\$33.53	\$6,17
	1-19	98	0.5	49	\$33.53	\$1,64
Tug & Towing Services	1000 & Up	45	20	900	\$44.13	\$39,71
	500-999	27	20	540	\$44.13	\$23,83
	200-499	8	20	160	\$44.13	\$7,06
	100-199	13	12	156	\$44.13	\$6,88
	20-99	88	4	352	\$44.13	\$15,53
	1-19	468	0.5	234	\$44.13	\$10,32
Passenger Vessels	20-99	20	4	80	\$44.13	\$3,53
	1-19	101	0.5	51	\$44.13	\$2,25
	TOTAL	2,725		7,846		\$274,97

Table 2 **Recurring Annual Burden Hours and Costs for Energy Control Procedure Updates**

Source: Office of Regulatory Analysis, OSHA.

Lockout/Tags-plus Log

Paragraph (c)(7)(iv) requires that the lockout/tags-plus coordinator maintain and administer a continuous lockout/tags-plus log of each lockout/tags-plus system. The log must contain the location and type of machinery, equipment, or system to be serviced, the name of the authorized employee applying the lockout/tags-plus system, the date the system is applied, the name of the authorized employee removing the lock or tags-plus system, and the date the system is removed. The Agency estimates that it takes 5 minutes (0.08 hour) of the lockout/tags-plus coordinator's time (at the authorized worker's wage rate) to complete the lockout/tags-plus log per lockout/tags-plus application. The number of lockout/tags-plus activities per year is based on the estimates presented below (See Table 3).

	Size Class	Affected Establishments	Systems Secured per Year	Time in Hours	Burden Hours	Authorized Worker	Total Cost
Shipyards	1000 & Up	40	26,000	0.08	2,080	\$23.72	\$49,338
	500-999	25	3,072	0.08	246	\$23.72	\$5,835
	200-499	32	24,467	0.08	1,957	\$23.72	\$46,420
	100-199	51	36,386	0.08	2,911	\$23.72	\$69,049
	20-99	31	1,379	0.08	110	\$23.72	\$2,609
Offsite	20 - 99*	85	2,576	0.08	206	\$23.72	\$4,886
	1 – 19*	371	6,355	0.08	508	\$23.72	\$12,050
Commercial Fishing	1000 & Up	7	2,919	0.08	234	\$16.30	\$3,814
	500-999	3	584	0.08	47	\$16.30	\$766
	200-499	1	178	0.08	14	\$16.30	\$228
	100-199	8	487	0.08	39	\$16.30	\$636
	20-99	25	452	0.08	36	\$16.30	\$587
	1-19	1,076	3,504	0.08	280	\$16.30	\$4,564
Fish Processing	1000 & Up	22	5,818	0.08	465	\$31.78	\$14,777
	500-999	6	582	0.08	47	\$31.78	\$1,494
	200-499	11	1,339	0.08	107	\$31.78	\$3,401
	100-199	17	1,015	0.08	81	\$31.78	\$2,574
	20-99	46	1,307	0.08	105	\$31.78	\$3,337
	1-19	98	570	0.08	46	\$31.78	\$1,303
Tug & Towing Services	1000 & Up	45	318	0.08	25	\$46.46	\$1,162
	500-999	27	187	0.08	15	\$46.46	\$697
	200-499	8	77	0.08	6	\$46.46	\$279
	100-199	13	123	0.08	10	\$46.46	\$465
	20-99	88	839	0.08	67	\$46.46	\$3,113
	1-19	468	4,449	0.08	356	\$46.46	\$16,958

Table 3 Lockout/Tags-plus Log

	Size Class	Affected Establishments	Systems Secured per Year	Time in Hours	Burden Hours	Authorized Worker	Total Cost
Passenger Vessels	20-99	20	188	0.08	15	\$46.46	\$697
	1-19	101	956	0.08	77	\$46.46	\$3,577
	TOTAL	2,725	126,127		10,090		\$254,616

Notification Application and Removal of the Lockout/Tags-plus Systems:

Paragraph (e)(1)(ii) requires the employer to notify each affected employee that the machinery, equipment or system will be shut down and deenergized prior to servicing, and that a lockout/tags-plus system will be implemented.

Paragraph (i)(1)(i) requires the authorized employer to notify all other authorized and affected employees that the lockout/tags-plus system will be removed before removing any lockout/tags-plus system and restoring the machinery, equipment, or system to use.

Paragraph (l)(2) requires the host employer, in multi-employer worksites, to inform each contract employer about the content of the host employer's lockout/tags-plus program and procedures; and to instruct each contract employer to follow the host employer's lockout/tags-plus program and procedures. Also, the host employer must ensure that the lockout/tags-plus coordinator knows about all servicing operations and communicates this information with each contract employer who performs servicing or works in an area where servicing is being conducted.

Paragraph (n)(3)(iv) requires that each lock and tag indicate the identity of the authorized employee applying it. Paragraph (n)(3)(v) requires that each tag warn against hazardous conditions that could arise if the machinery, equipment, or system is energized. In addition, the tag must include a legend such as one of the following: <u>Do Not Start; Do Not Open; Do Not</u> <u>Close; Do Not Energize; Do Not Operate</u>.

The FEA estimates the power sources considered in this analysis include electrical (primary), air, hydraulic, and steam (primary); electrical (secondary); air, hydraulic, and steam (secondary); and all non-vessel sources (for example, electrical panel boxes in buildings and in off-site establishments) to which locks or tags-plus systems are applied.

Economic assumptions for Electrical Systems or Equipment include:

- Large shipyards and commercial vessel industries (those with 500 or more employees) are already employing some form of energy control when performing work on electrical systems or equipment. OSHA estimates that those shipyards and commercial-vessel industries will not incur any additional costs associated with applying a lockout or tags-plus system.
- OSHA estimates that medium to small shipyards and commercial-vessel industries (those with fewer than 500 employees) do not currently employ any form of energy

control when performing electrical work other than as required by 29 CFR Part 1915, subpart J (Ship's Machinery and Piping Systems), and subpart L (Electrical Machinery).

The FEA estimates it will take two minutes (.03 hour) to go to the system, tag it, and attach a clip. The labor-time estimate also includes the time to notify the affected and other authorized employees of the application and removal of lockout or tags-plus devices. Also, OSHA estimates that it will take an additional 3 minutes (0.05 minutes) of labor time to obtain the tag information. The application includes the necessary written requirements (See Table 4).

Industry Name	Size Class	Affected Establishments	Number of Electrical Systems	Time in Hours	Total Burden Hours	Affected Worker Wage Rage	Cost
J.	1,000 &						
Shipyards	Up	40	32,992	0	0	\$19.51	\$0
	500-999	25	2,633	0	0	\$19.51	\$0
	200-499	32	22,816	0.08	1,825	\$19.51	\$35,606
	100-199	51	34,315	0.08	2,745	\$19.51	\$53,555
	20-99	31	1,234	0.08	99	\$19.51	\$1,932
Contractor/Off- Site	20-99	85	2,333	0.08	187	\$19.51	\$3,648
	1-19	371	5,918	0.08	473	\$19.51	\$9,228
Commercial Fishing Vessels	1,000 & Up	7	2,502	0	0	\$16.30	\$0
Tishing (coscis	500-999	3	500	0	0	\$16.30	\$0
	200-499	1	152	0.08	12	\$16.30	\$196
	100-199	8	416	0.08	33	\$16.30	\$538
	20-99	25	384	0.08	31	\$16.30	\$505
	1-19	1,076	2,850	0.08	228	\$16.30	\$3,716
Fish Processing	1,000 &						
Vessels	Up	22	4,987	0	0	\$18.09	\$0
	500-999	6	499	0	0	\$18.09	\$0
	200-499	11	1,146	0.08	92	\$18.09	\$1,664
	100-199	17	867	0.08	69	\$18.09	\$1,248
	20-99	46	1,113	0.08	89	\$18.09	\$1,610
	1-19	98	475	0.08	38	\$18.09	\$687

Table 4 Notification of the Application and Removal of the Lockout/Tags-plus System (Burden and Cost for Electrical Systems)

Industry Name	Size Class	Affected Establishments	Number of Electrical Systems	Time in Hours	Total Burden Hours	Affected Worker Wage Rage	Cost
Tug & Towing	1,000 &						
Services	Up	45	272	0	0	\$30.58	\$0
	500-999	27	160	0	0	\$30.58	\$0
	200-499	8	65	0.08	5	\$30.58	\$153
	100-199	13	104	0.08	8	\$30.58	\$245
	20-99	88	707	0.08	57	\$30.58	\$1,743
	1-19	468	3,746	0.08	300	\$30.58	\$9,174
Passenger Vessels	20-99	20	158	0.08	13	\$30.58	\$398
	1-19	101	805	0.08	64	\$30.58	\$1,957
	Total	2,725	124,149		6,368		\$127,803

Economic Assumptions for Air and Hydraulic Power Sources.

The FEA estimated that an authorized employee will expend one hour to go to the system, tag it, and attach a clip. This one hour includes the labor-time to notify the affected employees of the application and removal of lockout or tags-plus devices.

Paragraph (l)(2) requires the host employer, in multi-employer worksites, to inform each contract employer about the content of the host employer's lockout/tags-plus program and procedures; and to instruct each contract employer to follow the host employer's lockout/tags-plus program and procedures. Also, the host employer must ensure that the lockout/tags-plus coordinator knows about all servicing operations and communicates this information with each contract employer who performs servicing or works in an area where servicing is being conducted.

Paragraph (n)(3)(iv) requires that each lock and tag indicate the identity of the authorized employee applying it. Paragraph (n)(3)(v) requires that each tag warn against hazardous conditions that could arise if the machinery, equipment, or system is energized. In addition, the tag must include a legend such as one of the following: <u>Do Not Start; Do Not Open; Do Not</u> <u>Close; Do Not Energize; Do Not Operate</u>.

Table 5Notification of the Application and Removal
of the Lockout-tags plus System(Burden and Cost for Air or Hydraulic Systems)

Industry Name	Size Class	Number of Establishments	Number of Air or Hydraulic Systems	Time in Hours	Total Burden Hours	Authorized Employee Wage/Rate	Cost
	1,000 &						
Shipyards	Up	40	5,499	1	5,499	\$23.72	\$130,436
	500-999	25	439	1	439	\$23.72	\$10,413
	200-499	32	1,651	1	1,651	\$23.72	\$39,162
	100-199	51	2,071	1	2,071	\$23.72	\$49,124
	20-99	31	145	1	145	\$23.72	\$3,439
Contractor/Off-Site	20-99	85	243	1	243	\$23.72	\$5,764
	1-19	371	437	1	437	\$23.72	\$10,366
Commercial Fishing	1,000 &						
Vessels	Up	7	417	1	417	\$16.30	\$6,797
	500-999	3	83	1	83	\$16.30	\$1,353
	200-499	1	26	1	26	\$16.30	\$424
	100-199	8	71	1	71	\$16.30	\$1,157
	20-99	25	68	1	68	\$16.30	\$1,108
	1-19	1,076	654	1	654	\$16.30	\$10,660
	1,000 &					** *	** • • • • •
Fish Processing Vessels	Up	22	831	1	831	\$31.78	\$26,409
	500-999	6	83	1	83	\$31.78	\$2,638
	200-499	11	193	1	193	\$31.78	\$6,134
	100-199	17	147	1	147	\$31.78	\$4,672
	20-99	46	193	1	193	\$31.78	\$6,134
	1-19	98	95	1	95	\$31.78	\$3,019
	1,000 &						
Tug & Towing Services	Up	45	45	1	45	\$46.46	\$2,091
	500-999	27	27	1	27	\$46.46	\$1,255
	200-499	8	12	1	12	\$46.46	\$558
	100-199	13	19	1	19	\$46.46	\$883
	20-99	88	132	1	132	\$46.46	\$6,133
	1-19	468	702	1	702	\$46.46	\$32,615
Passenger Vessels	20-99	20	30	1	30	\$46.46	\$1,394
	1-19	101	151	1	151	\$46.46	\$7,016
	Total	2,725	14,464		14,464		\$397,563

Incident Investigations

Paragraph (p)(1) requires that the employer investigate each incident that resulted in, or could reasonably have resulted in, the energization or startup or the release of hazardous energy, while servicing machinery, equipment, or systems. Paragraph (p)(2) specifies that the incident investigation must be initiated no later than 24 hours after occurrence.

Paragraph (p)(4) requires the employer to prepare a written report of the investigation that includes: the date of the incident; date and time the incident investigation began; location and description of the incident; factors contributing to the incident; and a copy of the lockout/tagsplus log that was current at the time of the incident. OSHA estimates that the recordable incident is one percent of all systems subject to the standard per year. The incident investigation and written report will take five workdays (40 hours) of authorized worker time to complete.

	Size Class	Affected Establishments	Total Systems	Total (1%) Reportable Incidents	Time in Hours	Total Hours (Rounded)	Authorized Worker Wage Rate	Cost
Shipyards	1000 &	40	26,000	260	40	10,400	\$23.72	\$246,688
	Up							
	500-999	25	16,250	163	40	6,520	\$23.72	\$154,654
	200-499	32	20,800	208	40	8,320	\$23.72	\$197,350
	100-199	51	34,229	342	40	13,680	\$23.72	\$324,490
	20-99	31	727	7	40	280	\$23.72	\$66,416
Offsite	20 - 99*	85	1,597	16	40	640	\$23.72	\$15,181
	1 – 19*	371	5,334	53	40	2,120	\$23.72	\$50,286
Commercial	1000 &	7	18	0.2	40	8	\$16.30	\$130
Fishing	Up	/	10	0.2	40	0	\$10.50	\$150
0	500-999	3	8	0.1	40	4	\$16.30	\$65
	200-499	1	3	0.03	40	1	\$16.30	\$16
	100-199	8	20	0.2	40	8	\$16.30	\$130
	20-99	25	63	1	40	40	\$16.30	\$652
	1-19	1,076	2,690	27	40	1,080	\$16.30	\$17,604
T' 1	1000.0	22		1	40	10	¢21.70	¢1.071
Fish Processing	1000 & Up	22	55	1	40	40	\$31.78	\$1,271
0	500-999	6	15	0.2	40	8	\$31.78	\$254
	200-499	11	27	0.3	40	12	\$31.78	\$381
	100-199	17	42	0.4	40	16	\$31.78	\$509
	20-99	46	116	1	40	40	\$31.78	\$1,271
	1-19	98	245	2	40	80	\$31.78	\$2,542
Tug &	1000 &	45	113	1	40	40	\$46.46	\$1,888
Towing Services	Up							

Table 6Incident Investigation
(Burden and Cost)

	Size Class	Affected Establishments	Total Systems	Total (1%) Reportable	Time in	Total Hours	Authorized Worker	Cost
				Incidents	Hours	(Rounded)	Wage Rate	
	500-999	27	67	1	40	40	\$46.46	\$1,888
	200-499	8	20	0.2	40	8	\$46.46	\$372
	100-199	13	32	0.3	40	12	\$46.46	\$578
	20-99	88	221	2	40	80	\$46.46	\$3,717
	1-19	468	1,171	12	40	480	\$46.46	\$22,301
Passenger Vessels	20-99	20	50	0.5	40	20	\$46.46	\$929
	1-19	101	252	3	40	120	\$46.46	\$5,575
	TOTAL	2,725	110,165	1,102		44,097		\$1,117,078

Program Audits

Paragraph (q)(1) requires the employer to conduct an audit of the lockout/tags-plus program and procedures at least annually to ensure that the procedures and the requirements of this Standard are being followed, and to correct any deficiencies.

Paragraph (q)(4) requires the employer to prepare a written audit report that includes at least: (i) the date of the audit; (ii) the identity of the individuals who performed the audit; (iii) the identity of the procedure and the machinery, equipment or system being audited; (iv) the results of the program audit and recommended actions to correct deviations or deficiencies identified; (v) any incident investigation reports since the previous audit; and (vi) corrective actions the employer has taken in response to the audit findings and recommendations.

Conducting an audit of the energy-control procedures will ensure that the current procedures being used are appropriate in protecting workers. The purpose of this audit is to correct and to identify any deviations or inadequacies in the procedures that need to be corrected.

The FEA estimates that an authorized worker and a supervisor take an average of 30 minutes (.50 hour) each, for a total of 1.00 hour, to correct any deviations or inadequacies in the procedures that were identified for each establishment. In addition to this time, the supervisor takes 20 minutes (.33 hour), to develop and maintain a written audit report, for a total burden of one hour and 20 minutes (1.33 hour) per establishment. OSHA estimates that each of the 2,725 establishments will conduct one program audit each year. In determining the hourly cost, OSHA used the following hourly cost equation:

Shipyards:

Hourly cost = $((0.5 \text{ hour x authorized worker wage rate ($23.72 per hour)) + (.5 hour x supervisory wage rate ($32.98 per hour))) + (.33 hour x supervisory wage rate ($32.98 per hour)) = $39.23 per hour$

Burden hours: 635 establishments x 1 audit annually x 1.33 hours = 845 hours. **Cost**: 845 hours x \$39.23 per hour = \$33,149 Commercial Fishing:

Hourly Cost = $((0.5 \text{ hour x authorized worker wage rate ($16.30 per hour)) + (.5 hour x supervisory wage rate ($20.37 per hour))) + (.33 hour x supervisory wage rate ($20.37 per hour))) = $25.06 per hour$

Burden hours: 1,120 establishments x 1 audit annually x 1.33 hours = 1,490 hours. **Cost**: 1,490 hours x \$25.06 per hour = \$37,339

Fish Processing Vessels:

Hourly Cost = $((0.5 \text{ hour x authorized worker wage rate ($31.78 per hour)) + (.5 hour x supervisory wage rate ($33.53 per hour))) + (.33 hour x supervisory wage rate ($33.53 per hour))) = $43.73 per hour$

Burden hours: 200 establishments x 1 audit annually x 1.33 hours = 266 hours. Cost: 266 hours x 43.73 per hour = 11,632

Tug & Towing Services:

Hourly Cost = $((0.5 \text{ hour x authorized worker wage rate ($46.46 per hour)) + (.5 hour x supervisory wage rate ($44.13 per hour))) + (.33 hour x supervisory wage rate ($44.13 per hour))) = $59.86 per hour$

Burden hours: 649 establishments x 1 audit annually x 1.33 hours = 863 hours. **Cost**: 863 hours x \$59.86 per hour = \$51,659

Passenger Vessels:

Hourly Cost = $((0.5 \text{ hour x authorized worker wage rate ($46.46 per hour)) + (.5 hour x supervisory wage rate ($44.13 per hour))) + (.33 hour x supervisory wage rate ($44.13 per hour))) = $59.86 per hour$

Burden hours: 121 establishments x 1 audit annually x 1.33 hours = 161 hours. **Cost**: 161 hours x \$59.86 per hour = \$9,638

Total Burden Hours: 845 hours + 1,490 hours + 266 hours + 863 hours + 161 hours = 3,625 hours

Total Cost: \$33,149 + \$37,339 + \$11,632 + \$51,659 + \$9,638 = \$143,417

Training Certification

Paragraph (0)(7) requires employers to keep records of training that has been accomplished by

employees, and that this training is current. The training record must contain, at least, each employee's name, the date of training, and the subject matter of the training. Employers must provide initial training and retraining, as necessary, to ensure that employees understand the purpose and function of the energy control program and acquire the knowledge and skills necessary for the safe application, use, and removal of the energy-control applications. In addition, retraining must be provided whenever there is a change in the employee's job assignment that presents new hazards or requires a greater degree of knowledge about the employer's lockout/tags-plus procedures. Also, retraining must be provided when there is a change in machinery, equipment, or systems to be serviced, and when there is a change in the employer's lockout/tags-plus program and procedures. In the case where an audit or incident investigation reveals that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures, retraining must be provided. Further, the rule requires that employers train employees who are incidentally in the vicinity of a lockout/tags-plus application; however, OSHA estimates that these employees are already receiving such training during their general orientation and; therefore employers should not incur any costs associated with this requirement.

To estimate the number of authorized and affected employees who must be trained, the FEA has included as authorized and affected employees those employees engaged in lockout/tags-plus applications. The FEA estimates that three minutes (0.05 hour) of secretarial time will be needed per employee to develop and maintain training records.

	Size Class	Authorized Employees	Time in Hours	Burden Hours	Secretary's Wage Rate	Initial Cost
Shipyard	1000 &	5,499	.05 hour	275	\$17.54	\$4,824
	Up					
	500-999	439	.05 hour	22	\$17.54	\$386
	200-499	611	.05 hour	31	\$17.54	\$544
	100-199	360	.05 hour	18	\$17.54	\$316
	20-99	109	.05 hour	6	\$17.54	\$105
Contractor/ Off-Site	20-99	163	.05 hour	8	\$17.54	\$140
	0-19	170	.05 hour	9	\$17.54	\$158
	TOTAL	7,351		369		\$6,473
Commercial Fishing	1000 & Up	417	.05 hour	21	\$17.54	\$368
	500-999	83	.05 hour	4	\$17.54	\$70
	200-499	25	.05 hour	1	\$17.54	\$18
	100-199	67	.05 hour	3	\$17.54	\$53
	20-99	56	.05 hour	3	\$17.54	\$53

Table 7Initial Training of Authorized and Affected Employees
(Burden Hours and Costs)

	0-19	116	.05 hour	6	\$17.54	\$105
	TOTAL	764		38		\$667
Fish	1000 &	831	.05 hour	42	\$17.54	\$737
Processing	Up	001	100 11001		<i>q</i> 1 <i>1 1 0 1</i>	<i><i></i></i>
0	500-999	83	.05 hour	4	\$17.54	\$70
	200-499	187	.05 hour	9	\$17.54	\$158
	100-199	139	.05 hour	7	\$17.54	\$123
	20-99	170	.05 hour	9	\$17.54	\$158
	0-19	47	.05 hour	2	\$17.54	\$35
	TOTAL	1,457	lot nour	73	<i><i><i>q</i>₁<i>n</i>₀</i></i>	\$1,281
	TOTIL	1,107		10		<i>41,201</i>
Tug &	1000 &	425	.05 hour	21	\$17.54	\$368
Towing	Up	725	.05 11001	21	φ17.34	φ500
Services	Ср					
20111005	500-999	338	.05 hour	17	\$17.54	\$298
	200-499	128	.05 hour	6	\$17.54	\$105
	100-199	106	.05 hour	5	\$17.54	\$88
	20-99	242	.05 hour	12	\$17.54	\$211
	0-19	122	.05 hour	6	\$17.54	\$105
	TOTAL	1,361	.05 11001	<u> </u>	\$17.54	\$1,175
	IOIAL	1,501		07		\$1,175
Desserver	20-99	50	.05 hour	3	\$17.54	\$53
Passenger Vessels						
	0-19	31	.05 hour	2	\$17.54	\$35
	TOTAL	81		5		\$88
		01		Ð		400
						φυυ
						ţ
			Time in			ψου
		Affected	Time in Hours		Secretary's	
	Size Class		Time in Hours	Burden Hours	Secretary's Wage Rate	Initial Cost
	Size Class	Affected Employees	Hours	Burden Hours	Wage Rate	Initial Cost
Shipyard	Size Class	Affected				
Shipyard	Size Class 1000 & Up	Affected Employees 14,057	Hours 0.05 hour	Burden Hours 703	Wage Rate \$17.54	Initial Cost \$12,331
Shipyard	Size Class 1000 & Up 500-999	Affected Employees 14,057 2,146	Hours 0.05 hour 0.05 hour	Burden Hours 703 107	Wage Rate \$17.54 \$17.54	Initial Cost \$12,331 \$1,877
Shipyard	Size Class 1000 & Up 500-999 200-499	Affected Employees 14,057 2,146 1,374	Hours 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69	Wage Rate \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210
Shipyard	Size Class 1000 & Up 500-999 200-499 100-199	Affected Employees 14,057 2,146 1,374 1,375	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210
	Size Class 1000 & Up 500-999 200-499 100-199 20-99	Affected Employees 14,057 2,146 1,374 1,375 660	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69 33	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$579
Shipyard Contractor/ Off-Site	Size Class 1000 & Up 500-999 200-499 100-199	Affected Employees 14,057 2,146 1,374 1,375	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210
Contractor/	Size Class 1000 & Up 500-999 200-499 100-199 20-99	Affected Employees 14,057 2,146 1,374 1,375 660	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69 33	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$579
Contractor/	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19	Affected Employees 14,057 2,146 1,374 1,375 660 463 438	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69 33 23 22	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$579 \$403 \$386
Contractor/	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99	Affected Employees 14,057 2,146 1,374 1,375 660 463	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69 33 23	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$1,210 \$579 \$403
Contractor/ Off-Site	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL	Affected Employees 14,057 2,146 1,374 1,375 660 463 438 20,513	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69 33 23 22 1,026	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$1,210 \$579 \$403 \$386 \$17,996
Contractor/ Off-Site Commercial	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 0-19 TOTAL 1000 &	Affected Employees 14,057 2,146 1,374 1,375 660 463 438	Hours 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour 0.05 hour	Burden Hours 703 107 69 69 33 23 22	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$579 \$403 \$386
Contractor/ Off-Site	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL	Affected Employees 14,057 2,146 1,374 1,375 660 463 438 20,513	Hours 0.05 hour	Burden Hours 703 107 69 69 33 23 22 22 1,026	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$1,210 \$579 \$403 \$386 \$386 \$17,996 \$737
Contractor/ Off-Site Commercial	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL 1000 & Up 500-999	Affected Employees 14,057 2,146 1,374 1,375 660 463 463 438 20,513 834 834	Hours 0.05 hour	Burden Hours 703 107 69 69 33 23 23 22 1,026 42 8	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$1,210 \$579 \$403 \$386 \$17,996 \$737 \$140
Contractor/ Off-Site Commercial	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL 1000 & Up 500-999 200-99	Affected Employees 14,057 2,146 1,374 1,375 660 463 438 20,513 834 834	Hours 0.05 hour	Burden Hours 703 703 107 69 69 33 23 23 22 1,026 42 8 3	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$579 \$403 \$386 \$17,996 \$737 \$140 \$53
Contractor/ Off-Site Commercial	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL 1000 & Up 500-999 200-499 100-199	Affected Employees 14,057 2,146 1,374 1,375 660 463 438 20,513 834 834 167 50 133	Hours 0.05 hour 0.05 hour	Burden Hours 703 703 107 69 69 33 23 23 22 1,026 42 8 3 67	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$579 \$403 \$386 \$17,996 \$737 \$140 \$53 \$1,175
Contractor/ Off-Site Commercial	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL 1000 & Up 500-999 200-499 100-199 200-499 100-199 200-499	Affected Employees 14,057 2,146 1,374 1,375 660 463 438 20,513 834 834 167 50 133 111	Hours 0.05 hour	Burden Hours 703 703 107 69 69 33 23 22 1,026 42 8 3 67 6	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$1,210 \$579 \$403 \$386 \$17,996 \$386 \$17,996 \$737 \$140 \$53 \$1,175 \$105
Contractor/ Off-Site Commercial	Size Class 1000 & Up 500-999 200-499 100-199 20-99 20-99 20-99 0-19 TOTAL 1000 & Up 500-999 200-499 100-199	Affected Employees 14,057 2,146 1,374 1,375 660 463 438 20,513 834 834 167 50 133	Hours 0.05 hour 0.05 hour	Burden Hours 703 703 107 69 69 33 23 23 22 1,026 42 8 3 67	Wage Rate \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54 \$17.54	Initial Cost \$12,331 \$1,877 \$1,210 \$1,210 \$1,210 \$579 \$403 \$386 \$17,996 \$737 \$140 \$53 \$1,175

Fish	1000 &	1,662	0.05 hour	83	\$17.54	\$1,456
Processing	Up					
	500-999	166	0.05 hour	8	\$17.54	\$140
	200-499	375	0.05 hour	19	\$17.54	\$333
	100-199	278	0.05 hour	14	\$17.54	\$246
	20-99	340	0.05 hour	17	\$17.54	\$298
	0-19	93	0.05 hour	5	\$17.54	\$88
	TOTAL	2,914		146		\$2,561
Tug & Towing Services	1000 & Up	850	0.05 hour	43	\$17.54	\$754
	500-999	676	0.05 hour	34	\$17.54	\$596
	200-499	257	0.05 hour	13	\$17.54	\$228
	100-199	212	0.05 hour	11	\$17.54	\$193
	20-99	484	0.05 hour	24	\$17.54	\$421
	0-19	244	0.05 hour	12	\$17.54	\$211
	TOTAL	2,723		137		\$2,403
Passenger Vessels	20-99	99	0.05 hour	5	\$17.54	\$88
	0-19	62	0.05 hour	3	\$17.54	\$53
	TOTAL	161		8		\$141
TOTAL		38,853		2,007		\$35,205

Retraining of Authorized and Affected employees

For retraining of authorized employees, it will take three minutes of secretarial time per employee to prepare and maintain the training record. Using a turnover rate of 32.5 percent for the shipyard industry and fish-processing vessels, and 43 percent for water transportation and commercial fishing from the FEA, OSHA estimates that 2,863 employees (32.5% of 8,808 employees) will need retraining in the shipyard industry and fish-processing vessels and 949 employees (43% of 2,206 employees) will need retraining in water transportation and commercial fishing.

Burden hours: $(2,863 \text{ workers} + 949 \text{ workers}) \times 0.05 \text{ hour} = 191 \text{ hours}$

Cost: 191 hours x \$17.54 = \$3,350

For retraining of affected employees, it will also take three minutes of secretarial time per employee to prepare and maintain the training record. Using a turnover rate of 32.5 percent for the shipyard industry and fish-processing vessels, and 43 percent for water transportation and commercial fishing from the FEA, OSHA estimates that 7,614 employees (32.5% of 23,427 employees) will need retraining in the shipyard industry and fish-processing vessels and 1,897 employees (43% of 4,412 employees) will need retraining in water transportation and commercial fishing.

Burden hours: (7,614 workers + 1,897 workers) x 0.05 hour = 476 hours

Cost: 476 hours x \$17.54 = \$8,349

Total Burden Hours = 667 hours; Total Cost = \$11,699

Disclosure of Records to OSHA Compliance Officers

Employers would provide OSHA access to records required to be maintained by subpart F. OSHA believes that approximately 38 establishments³ covered by the subpart would be subject to an OSHA inspection and required to disclose these records annually. OSHA estimates that it takes a supervisor five minutes (.08 hour) to disclose the requested information.

The wage rates for a supervisor are an average of the rates for shipyard, commercial fishing, fish-processing vessels, and water transportation employment: (\$32.98 + \$44.13 + \$33.53 + \$20.37)/4 = \$32.75

Burden hours: 38 establishments inspected x .08 hour = 3 **Cost**: 3 hours x \$32.75 = \$98

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 14.)

In the final rule, paragraph (n)(3)(iv) requires that each lock and tag indicate the identity of the authorized employee applying it. Paragraph (n)(3)(v) requires that each tag warn against hazardous conditions that could arise if the machinery, equipment, or system is energized. In addition, the tag must include a legend such as one of the following: <u>Do Not Start; Do Not</u> <u>Open; Do Not Close; Do Not Energize; Do Not Operate</u>. The Agency is estimating the cost of a tag is \$1.00 at an average use of 7 times per tag. The cost for each tag and tie is 0.17 cents.

	Size Class	Affected Establishments	Systems Secured per Year	Seven Uses per Tag of Systems Secured	Cost per Tag and a Tie	Total Cost
Shipyards	1000 & Up	40	26,000	3,714	\$0.17	\$631
	500-999	25	3,072	439	\$0.17	\$75
	200-499	32	24,467	3,495	\$0.17	\$594
	100-199	51	36,386	5,198	\$0.17	\$884
	20-99	31	1,379	197	\$0.17	\$34
Offsite	20 - 99*	85	2,576	368	\$0.17	\$63
	1 – 19*	371	6,355	908	\$0.17	\$154

Table 8Per Unit Costs of a Tag

³OSHA estimated the number of inspections by determining the inspection rate (1.4%) for all establishments under the jurisdiction of the Act (including both Federal OSHA and approved state-plan agencies) and then multiplying the total number of establishments covered by the Standard (i.e., 2,725) by this percentage (i.e., 2,725 establishments x 1.4% = 38 inspections).

	Size Class	Affected Establishments	Systems Secured per Year	Seven Uses per Tag of Systems Secured	Cost per Tag and a Tie	Total Cost
Commercial Fishing	1000 & Up	7	2,919	417	\$0.17	\$71
<u> </u>	500-999	3	584	83	\$0.17	\$14
	200-499	1	178	25	\$0.17	\$4
	100-199	8	487	70	\$0.17	\$12
	20-99	25	452	65	\$0.17	\$11
	1-19	1,076	3,504	501	\$0.17	\$85
Fish Processing	1000 & Up	22	5,818	831	\$0.17	\$141
	500-999	6	582	83	\$0.17	\$14
	200-499	11	1,339	191	\$0.17	\$33
	100-199	17	1,015	145	\$0.17	\$25
	20-99	46	1,307	187	\$0.17	\$32
	1-19	98	570	81	\$0.17	\$14
Tug & Towing Services	1000 & Up	45	318	45	\$0.17	\$8
20111005	500-999	27	187	27	\$0.17	\$5
	200-499	8	77	11	\$0.17	\$2
	100-199	13	123	18	\$0.17	\$3
	20-99	88	839	120	\$0.17	\$20
	1-19	468	4,449	636	\$0.17	\$108
Passenger Vessels	20-99	20	188	27	\$0.17	\$5
	1-19	101	956	137	\$0.17	\$23
	TOTAL	2,725	126,127	18,019		\$3,065

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 \$37.37,⁴ spends about five minutes (.08 hour) during an inspection reviewing the documents required by subpart F. The Agency determined that its compliance officers would conduct approximately 38 inspections under subpart F during each year covered by this ICR (see footnote 4). 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 subpart F. Therefore, the total cost of these paperwork requirements to the Federal government is:

⁴ Source: U.S. Office of Personnel Management; 2011 General Schedule (GS) Locality Pay Tables; Salary Table 2011-RUS, http://www.opm.gov/oca/11tables/pdf/rus_h.pdf.

Cost: 38 inspections x .08 hour x \$37.37 = \$114

15. Explain the reasons for any program changes or adjustments reported in ROCIS.

OSHA is revising the maritime standards on General Working Conditions in Shipyard Employment (29 CFR part 1915, subpart F). The final rule would impose 99,645 initial new burden hours to 2,725 shipyard employment establishments after the effective date of the final standard. Table 9 summarizes the burden hours and costs associated with each provision in the final rule that contains a paperwork requirement. Table 8, under item 13, estimates a program change in cost of \$3,065.

Collection of Information	Initial Burden Hours	Initial Costs	Recurring Burden Hours	Recurring Cost	Cost under Item 13	Total Number of Responses
Marking Location of Stretchers (§1915.87(f)(3))	3	\$80	3	\$80	0	- 36
Informing employees to Wash Hands and Face (\$1915.88(e)(3))	0	\$0	0	\$0	0	0
Developing Lockout/tags-plus Procedures (§1915.89 (b))	18,988	\$645,445	7,846	\$274,975	\$3,065	2,725
Lockout/tag-plus Log (§ 1915.89 (c)(7)(iv))	10,090	\$254,616	10,090	\$254,616	0	126,127
Notification of the Application and Removal of the Lockout or tags-plus System for the Electrical Devices (§ 1915.89 (e)(1) and (i)(1)(i))	6,368	\$127,803	6,368	\$127,803	0	124,149
Notification of the Application and Removal of the Lockout or tags-plus System for the Air and Hydraulic Power Sources (§ 1915.89 (e)(1), (l)(2), (n)(3)(iv), and (i)(1)(i))	14,464	\$397,563	14,464	\$397,563	0	14,464
Preparing Written Reports of the Incident Investigation (§ 1915.89 (p)(4))	44,097	\$1,117,078	44,097	\$1,117,078	0	1,102
Program Audits (§1915.89(q)(4))	3,625	\$143,417	3625	\$143,417	0	2,725
Employee Training and Training Certification (§1915.89(o)(7))	2,007	\$35,205	667	\$11,699	0	38,853
Disclosure of Records to OSHA (§ 1915.89 (r)(2))	3	\$98	3	\$98	0	38
TOTAL	99,645	\$2,721,305	87,163	\$2,327,329	\$3,065	310,181

Table 9 -- Summary ofBurden Hours and Costs

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 revised subpart F.

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

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

18. Explain each exception to the certification statement in www.reginfo.gov.

OSHA is not seeking an exception to the certification statement in www.reginfo.gov.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

The supporting statement does not contain any collection of information requirements that employ statistical methods.