

**SUPPORTING STATEMENT FOR THE
INFORMATION COLLECTION REQUIREMENTS OF THE
ASBESTOS IN SHIPYARDS STANDARD (29 CFR 1915.1001)¹
(OFFICE OF MANAGEMENT AND BUDGET (OMB)
CONTROL NO. 1218-0195 (February 2009))**

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

To protect employee health, the OSH Act authorizes the Occupational Safety and Health Administration (OSHA) to develop standards that provide for “monitoring or measuring employee exposure” to occupational hazards and “prescribe the type and frequency of medical examinations and other tests which shall be made available [by the employer] to employees exposed to such hazards in order to most effectively determine whether the health of such employees is adversely affected by such exposure” (29 U.S.C. 655). In addition, the OSH Act mandates that “[e]ach employer shall make, keep and preserve, and make available to the Secretary [of Labor] . . . such records regarding [his/her] activities relating to this Act as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the causes and prevention of occupational accidents and illnesses” (29 U.S.C. 657). In addition, the OSH Act directs OSHA to “issue regulations requiring employers to maintain accurate records of employee exposure to potentially toxic materials or other harmful physical agents which are required to be monitored and measured,” and further specifies that such regulations provide “for each employee or former employee to have access to such records as will indicate [their] own exposure to toxic materials or harmful physical agents” (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. 651).

Under the authority granted by the OSH Act, OSHA published a health standard governing employee exposure to asbestos (29 CFR 1915.1001). The basis for this standard is a determination by the Assistant Secretary for OSHA that occupational exposure to asbestos poses a hazard to workers. Years of exposure to asbestos can cause numerous disabling or fatal

¹The purpose of this supporting statement is to analyze and describe the burden hours and costs associated with provisions of the Asbestos in Shipyard Standard that contain paperwork requirements; this supporting statement does not provide information or guidance on how to comply with, or how to enforce, the Standard.

diseases. Among these diseases are asbestosis, an emphysema-like condition; lung cancer; mesothelioma, a cancerous tumor that spreads rapidly in the cells of membranes covering the lungs and body organs; and gastrointestinal cancer.

The specific collection requirements of this standard are outlined below and fully discussed under questions 2 and 12.

- 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.**

Multi-employer Worksites (§ 1915.1001(d)(1))

Employers performing work that requires the establishment of a regulated area must inform other employers on the site of the nature of the employer's work with asbestos and/or presumed asbestos containing material (PACM), of the existence of and requirements pertaining to regulated areas, and the measures taken to ensure that employees of such other employers are not exposed to asbestos. Informing other employers at the worksite of asbestos and/or PACM ensures that the hazards concerning asbestos are known to all employers and employees working near this toxin; so that proper measures can be taken to eliminate any unnecessary exposures.

Regulated Areas (§ 1915.1001(e))

The Asbestos (Shipyards) standard requires employers who are conducting Class I, II, or III² asbestos work to designate areas where an employee's exposure to airborne concentrations of asbestos exceeds, or can reasonably be expected to exceed, the permissible exposure limits (PELs) - the eight (8)-hour time-weighted average limit³ or the excursion limit (EL)⁴. The area must be demarcated in any manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne asbestos.

Designated areas where employee exposures are over the PELs warn employees who are not essential to the performance of tasks within the areas to keep out. Demarcation also warns

²Class I asbestos work means activities involving the removal of thermal system insulation (TSI) or surfacing asbestos containing material (ACM) or PACM. Class II work means activities involving removal of ACM which is neither TSI or surfacing ACM. Class III asbestos work means repair and maintenance operations where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.

³Paragraph (c)(1) requires that the employer ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air as an (8) hour time-weighted average (TWA), as determined by the method prescribed in Appendix A of the standard, or by an equivalent method.

⁴Paragraph (c)(2) requires that the employer ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1f/cc) as averaged over a sampling period of thirty (30) minutes, as determined by the method prescribed in Appendix A of the standard, or by an equivalent method.

employees required to be in the regulated area that respirators need to be worn to avoid excessive exposure via inhalation and that good personal hygiene must be practiced to avoid exposure to asbestos via ingestion.

Exposure Assessments and Monitoring (§ 1915.1001(f))

Each employer who has a workplace or work operation where exposure-monitoring is required must conduct an exposure assessment to determine accurately the airborne concentrations of asbestos to which the employees may be exposed. Depending on the operation and class of asbestos work, the employer must conduct initial exposure assessment and/or negative exposure assessment. These assessments may include: using objective data to demonstrate that the materials or products the employer is working with cannot release airborne fibers in concentrations exceeding the TWA and EL; using previous monitoring results which represent workplace conditions "closely resembling" materials, products, processes, etc. of the current worksite; and/or exposure-monitoring of the worksite operation.

Exposure monitoring assists employers in identifying areas of operation that may require efforts to reduce exposure and come into compliance with the standard. Monitoring results also assist employers in determining the necessity for using engineering controls, instituting or modifying work practices and in selecting appropriate respiratory protection to prevent employees from over exposure.

Employee Notification of Monitoring Results (§ 1915.1001(f)(5))

Employers must either post, or individually inform employees in writing, of their exposure-monitoring results as soon as possible but no later than 5 working days after the receipt of the results. Posting enhances the collective knowledge in the workplace of employee exposures; which in turn enhances each employee's understanding of his/her own exposure. Posting the results facilitates other employees, their designated representatives, supervisor and employers in becoming aware of exposure levels within the workplace.

Alternative Control Methods for Class I work (§ 1915.1001(g)(6))

Employers may use other exposure controls methods not referenced in paragraph (g)(5), or modify paragraph (g)(5) methods when performing Class I asbestos work. However, if an employer chooses methods other than those in paragraph (g)(5), the employer must ensure that the alternative control method encloses, contains or isolates the processes or source of airborne asbestos dust, or otherwise captures or redirects such dust before it enters the breathing zone of employees.

In addition, a certified industrial hygienist or licensed professional engineer who is also qualified as a project designer must evaluate the work area and the projected work practices and engineering controls. This person must also certify that: the planned control method is adequate to reduce direct and indirect employee exposure to below the PELs under the worst-case conditions of use, and that the planned control method will prevent asbestos contamination outside the regulated area, and that the planned control method will prevent asbestos

contamination outside the regulated areas, as measured by clearance sampling which meets the requirements of the Environmental Protection Agency's Asbestos in Schools Rule issued under AHERA rules, or perimeter monitoring which meets the criteria in paragraph (g)(4)(ii)(B) of this standard.

Where the TSI or surfacing material to be removed is 25 linear or 10 square feet or less, the evaluation required in paragraph (g)(6) may be performed by a qualified person⁵ and may omit consideration of perimeter or clearance monitoring otherwise required.

The evaluation of employee exposure required in paragraph (g)(6) must include and be based on sampling and analytical data representing employee exposure during the use of such method under worst-case conditions and by employees whose training and experience is equivalent to employees who are to perform the current job.

Respirator Program (§ 1915.1001(h)(3)(i))

When respirators are required, the employer must establish a respiratory protection program in accordance with 29 1910.134 (b), (d), (e) and (f). 29 1910.134 (b) and (e) require that written standard operating procedures governing the selection and use of respirators be established as well as covering safe use of respirators in dangerous atmospheres that might be encountered in normal operations or in emergencies. The purpose of these requirements is to ensure that employers establish a standardized procedure for selecting, using, and maintaining respirators for each workplace where respirators will be used. Developing and writing down procedures requires employers to think through just how all of their requirements of the respiratory standard will be met in their workplace.

Respirator Fit Testing (§ 1915.1001(h)(4))

The employer must perform and record the results of either quantitative or qualitative fit tests at the time of initial fitting and at least every six months thereafter for each employee wearing a negative-pressure respirator. The test is used to select a respirator facepiece that exhibits minimum leakage and provides the required protection. Test protocols outlined in Appendix C of the standard must be followed and a record kept of the test.

⁵Qualified person means, in addition to the definition in 29 CFR 1926.32(f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f); in addition for Class I and Class II work who is specially trained in a training course which meet the criteria of the Environmental Protection Agency's (EPA) Model Accreditation Plan (40 CFR Part 763) for supervisor, or its equivalent, and for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2).

Laundering Protective Clothing (§ 1915.1001(i)(2)(ii))

Employers must notify the laundry of the potential harmful effects of asbestos. By providing this information to the person doing the laundry, they can be protected from the potentially harmful effects of asbestos.

Duties of Building /Vessel and Facility Owners (§ 1915.1001(k)(2))

Building/vessel and facility owners must identify the presence, location, and quantity of ACM and/or PACM at job work sites and notify the following in writing or through personal communication: prospective employers applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such material; employees of the owner who will work in or adjacent to areas containing such material; on multi-employer worksites, all employers of employees who will be performing work within or adjacent to areas containing such materials; and tenants who will occupy areas containing such material. This is to ensure that the hazards concerning asbestos are properly conveyed to all employers and employees working in the presence of this toxin.

Duties of Employers (§ 1915.1001(k)(3))

The following applies to employers whose employees perform work subject to this standard in or adjacent to areas containing ACM and PACM. Building/vessel and facility owners whose employees perform such work must comply with the following provision to the extent possible.

Before work in areas containing ACM and/or PACM is begun, employers must identify the presence, location and quantity of ACM and PACM and inform the following persons with the information: owners of the building/vessel or facility; employees who will perform the work; and employers of employees who work and/or will be working in adjacent areas. Further, within 10 days of the completion of such work, the employer whose employees have performed the work must inform the building/vessel or facility owner and employers of employees who will be working in the area of the current location and quantity of PACM and/or ACM remaining in the area. Again, this is to ensure that the hazards concerning asbestos are properly conveyed to all employers and employees working in the presence of this toxin.

Also, within 24 hours of its discovery, all employers who discover ACM and/or PACM on a worksite must convey information concerning the presence, location, and quantity of the newly discovered ACM and/or PACM to the owner and to other employers of employees working at the worksite. This is also to ensure that everyone is aware that the toxin is present.

Criterion to Rebut the Designation of Installed Material as PACM (§ 1915.1001(k)(5))

Employers and/or building/vessel owners may demonstrate that PACM does not contain asbestos by conducting inspections and tests of the materials. If the material is not ACM, building/vessel owners and/or employers are not required to communicate the information, however they must retain information, data and analysis supporting the determination that PACM does not contain asbestos. This is to ensure that the recognition of asbestos hazards is properly recognized.

Warning Signs (§ 1915.1001(k)(6) and (7))

Building/vessels owners must post signs at entrances to mechanical rooms/areas, where employees can reasonably be expected to enter, which contain ACM and/or PACM. These signs must identify the material which is present, its location, and appropriate work practices that will ensure ACM or PACM is not disturbed. Employees must be able to comprehend these signs.

Posting warning signs serve to warn employees, who may otherwise not know, that they are entering a regulated area. Such signs would warn employees that entry is permitted only if the employee is authorized and there is a specific need to enter the area. Warning signs supplement the training which employees receive under this standard.

Paragraph (k)(7) requires that regulated areas be identified by warning signs. Such signs must be posted at such a distance from the regulated area, that employees may read the signs and take necessary protective steps before entering the area. The warning signs must contain the following information; “DANGER, ASBESTOS, CANCER AND LUNG DISEASE HAZARD, AUTHORIZED PERSONNEL ONLY.” Where employees are required to wear respirators in the regulated areas, the warnings signs must also state: “RESPIRATORS AND PROTECTION CLOTHING ARE REQUIRED IN THIS AREA.”

Labels (§ 1915.1001(k)(8)(i), (ii), and (iii))

Employers must affix labels to any material/products containing asbestos. Labels must be used in accordance with 29 CFR 1910.1200(f); OSHA's Hazard Communication Standard.

The labels must be printed in large, bold letter on a contrasting background, contain a warning statement against breathing asbestos fibers, and state: “DANGER, CONTAINS ASBESTOS FIBERS, AVOID CREATING DUST, CANCER AND LUNG DISEASE HAZARD.”

Warning labels assure that downstream employers and employees are informed of the associated hazards with asbestos and that special practices may need to be implemented to insure against exposure. Furthermore, hazard labels alert other employers who, in the absence of such labels, might not know that asbestos is present in their workplace and that they have incurred obligation of complying with the standard.

Employee Information and Training (§ 1915.1001(k)(9), (o)(4))

Employers must institute a training program for all employees who are likely to be exposed in excess of a PEL and for all employees who perform Class I through Class IV asbestos operations. Employers must ensure that employees participate in the training program. Employers must train employees prior to or at the time of their initial assignment and at least annually thereafter. Training requirements and length vary depending on the type of operation. Requirements are as follow:

Class I and II:

Training for Class I and II operations, that require the use of critical barriers, or equivalent isolation methods, or negative pressure enclosures under this standard, must be the equivalent in curriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement workers training (40 CFR part 763, subpart E, appendix C).

Training for other Class II work:

Employers must train employees that work with asbestos containing roofing materials, flooring materials, siding materials, ceiling tiles, or transite panels, on the following elements in paragraph (k)(9): methods of recognizing asbestos, including requirements in paragraph (k)(1) of the standard to presume that certain building materials contain asbestos; the health effects associated with asbestos exposure; the relationship between smoking and producing lung cancer; the nature of operations that could result in exposure to asbestos; the importance of necessary protective controls to minimize exposure including, as applicable, engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, emergency procedures, and waste disposal procedures, and any necessary instruction in the use of these controls and procedures; the purpose, proper use, fitting instructions, and limitations of respirators as required by 29 CFR 1910.134; the appropriate work practices for the job; medical surveillance requirements; the content of the standard and the appendices; the names, addresses and phone numbers of public health organizations which provide information, materials and/or conduct programs concerning smoking cessation⁶; and the requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels.

Also, training must include the specific work practices and engineering controls set forth in paragraph (g) of the standard which specifically relate to this category. Such course must include “hands-on” training and must take at least 8 hours.

If an employee works with more than one of the categories of material specified in the preceding paragraph, they must receive training in the work practices applicable to each category of material that the employee removes and each removal method that the employee uses.

Employees performing Class II operations but are not working with asbestos contained in roofing, flooring materials, siding materials, ceiling tiles or transite materials must receive the same training as above but, in addition, must receive the specific work practices and engineering controls as stated in paragraph (g) of the standard which specifically relates to the category of material being removed. This training must also be “hands-on.”

Class III

Training for Class III employees must be equivalent to the Operations and Maintenance course developed by EPA for maintenance and custodial workers who conduct activities that will result

⁶Employers may distribute the list of such organizations contained in Appendix J to comply with this requirement.

in the disturbance of ACM. The training must include "hand-on" training in the use of respiratory protection and work practices and shall take at least 16 hours.

Class IV

Training for Class IV employees must be equivalent in curriculum and training method to the awareness training course developed by EPA for maintenance and custodial workers in buildings containing ACM as stated at 40 CFR 763.92 (a)(1). The course must include available information concerning the locations of thermal system insulation and surfacing ACM/PACM, and asbestos-containing flooring material, or flooring material where the absence of asbestos has not yet been certified; and instruction in recognition of damage, deterioration, and delamination of asbestos containing building materials. The course shall take at least 2 hours.

Employees likely to be exposed in excess of the PELs

Employees who are likely to be exposed in excess of the PEL, but who are not included in the above must be trained in accordance with paragraph (k)(9). These requirements are discussed above under Class II training.

In addition to training for Class I, II, III & IV employees, the standard (1915.1001(o)) requires employers to provide training for competent persons. The training method and length will also vary depending on the nature of the qualified person's work. For example, in Class I and II asbestos work, the qualified person must be trained in all aspects of asbestos removal and handling. Qualified persons involved in Class III and IV asbestos work must receive training equivalent in curriculum and training method to the 16-hour Operations and Maintenance course developed by EPA for maintenance and custodial workers.

Training is essential to inform employees of the hazards to which they are exposed and to provide employees with the necessary understanding of the degree to which they themselves can minimize the health hazard potential. Training serves to explain and reinforce the information presented to employees on signs, labels and MSDS's. These written forms of information and warning will be successful and relevant only when employees understand the information presented and are aware of the actions to be taken to avoid or minimize exposures.

Training provides information to the employee to enable them to be able to recognize how and where he or she might be occupationally exposed and what steps should be taken to limit exposure. Workers must be provided information on location, use, and work practices.

Medical Examinations and Consultations (§ 1915.1001(m)(2))

Employers must provide all employees who are engaged in Class I, II, III work for 30 days or more per year, or who are exposed at or above the PEL with medical examinations. Employee medical examinations must be provided by or under the supervision of a licensed physician and at no cost to the employee.

Medical examinations and consultation must be provided prior to assignment where negative-pressure respirators are worn and must be provided 10 working days after the thirtieth day of exposure for employees working 30 or more days per year in Class I, II, and III work. Annual medical examinations must be offered by the employer to these employees.

Employers must offer more frequent employee medical examinations if the examining physician determines such examinations are necessary.

Employee medical examinations must include the following: a medical and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems; a standardized questionnaire contained in Part 1 of Appendix D on the initial visit, an abbreviated questionnaire on annual visits; and any other examinations that the physician determines to be necessary.

Medical examinations and the related information collection requirements provide continuous monitoring of the health of potentially exposed employees. Records of medical examinations are used by physicians who must periodically examine employees exposed to asbestos. Without records of previous medical examinations, the physician may not be able to determine whether an employee has suffered adverse health effects since his or her last examination. Further, when symptoms of organic damage appear, the physician often needs information as to the patient's previous medical conditions to make an accurate diagnosis of the new problem, its apparent cause, and the course of treatment required.

Medical records are also designed so that employees can determine whether or not treatment is needed for occupational exposures.

The maintenance period for records regarding employee health is necessary because of the lengthy latency periods associated with the manifestation of disease due to exposure to asbestos.

Information Provided to Physician (§ 1915.1001(m)(3))

Paragraph (m)(3) requires employers to make the following information available to the physician: a copy of the standard including Appendices D, E and I; a description of the affected employee's duties as they relate to the employee's asbestos exposure; the employee's representative exposure level, or anticipated exposure level; a description of any personal protective and respiratory equipment used or to be used; and information from previous medical examinations.

Making the required information available to the physician will aid in the evaluation of the employee's health and fitness for particular asbestos exposed job assignment.

Physician's Written Opinion (§ 1915.1001(m)(4))

Employers must obtain from the physician a written opinion, and instruct the physician not to reveal any medical findings not associated with occupational exposure to asbestos. This written opinion must include the following: the physician's opinion as to whether the employee has any

detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos; recommendations on employee limitations on the use of personal protective equipment; a statement that the employee has been informed of their results of the medical examination and of any medical conditions that may result from asbestos exposure; and, a statement that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure. The employer must provide a copy of the opinion to the employee within 30 days from receipt.

The purpose in requiring the employer to obtain a written opinion from the examining physician is to provide the employer with a medical basis to aid in the determination of initial placement of employees and to assess the employee's ability to use protective clothing and equipment. The physician's opinion will also provide information to the employer as to whether the employee may be suffering from overexposure asbestos. The requirement that a physician's opinion be in written form will ensure that employers have had the benefit of the information.

The requirement that an employee be provided a copy of the physician's written opinion will ensure that the employee is informed of the results of the medical examination.

Objective Data Records (§ 1915.1001(n)(1))

Employers relying on objective data showing that products made from or containing asbestos will not expose employees to asbestos in excess of the PELs must establish and maintain an accurate record. This record must contain the elements as stated in paragraph (n)(1) of the standard.

The purpose of requiring an employer to document objective data determinations and retain them is to discourage abuse of this provision since employees and their representatives are permitted access to this information. Access enables employees and their representatives to ensure that the exemption determination is a reasonable one, thereby encouraging use of objective data determinations only in cases where the data warrant such use. Maintaining a record of the objective data determinations will permit OSHA to ascertain whether compliance with the standard has been achieved.

Exposure Measurements and Medical Surveillance (§ 1915.1001(n)(2) and(3))

The standard requires employers to maintain employee exposure and medical records. Medical and monitoring records are maintained for employee disclosure and are designed to provide valuable information to both the employee and the employer. The medical and monitoring records required by this standard will aid the employee and his/her physician in determining whether or not treatment is needed for occupational exposure to asbestos and what level of treatment is necessary. The employer benefits by keeping these records, since the information will enable the employer to better ensure that employees are not being overexposed; such information may alert the employer that steps must be initiated in order to reduce exposures.

The standard requires that exposure records be kept for at least 30 years and that medical records be kept for the duration of employment plus 30 years. It is necessary to keep these records for extended periods of time because of the long latency period commonly associated with carcinogenesis. Cancer often cannot be detected until 20 or more years after the first exposure.

Training Records (§ 1915.1001(n)(4))

Employers must maintain employee's training records for one year beyond the last date of employment by that employer. Maintaining training programs/materials provides a resource for an employee to refresh his or her training should they need it during the year. Retaining records of training demonstrates to OSHA, that the employer has been conducting annual training.

Records to Rebut PACM (§ 1915.1001(n)(5))

Where the building owner and employer have relied on data to demonstrate that PACM is not asbestos-containing, such data shall be maintained for as long as they are relied upon to rebut the presumption. This is to ensure that all PACMs are properly distinguished from ACMs. This is important in the communications of asbestos hazards to both employers and employees.

Records of Required Notification (§ 1915.1001(n)(6))

Where the building/vessel owner has communicated and received information concerning the identity, location and quantity of ACM and PACM, written records of such notification and their content shall be maintained by the owner for the duration of ownership and shall be transferred to successive owners of such buildings/facilities/vessels. This is to ensure that any new owners of such buildings/facilities/vessels are aware of the hazards of asbestos.

Availability (§ 1915.1001(n)(7)(ii) and (iii))

The employer, upon request, must make any exposure and medical records required by paragraphs (f) and (n) of this section available for examination and copying to affected employees, former employees, designated representatives, in accordance with 29 CFR 1910.1020 (a) through (e) and (g) through (i).

Transfer of Records (§ 1915.1001(n)(8))

Under certain circumstances, employers are required to transfer records to NIOSH. Records that have been transferred may be used for research purposes. In addition, by having employee records submitted to NIOSH, NIOSH serves as a repository. Employees may then be able to access their records if needed for health or other reasons.

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 improved information technology when establishing and maintaining exposure monitoring and medical-surveillance records. OSHA wrote the paperwork requirements of the Regulation in performance-oriented language (i.e., in terms of what data to maintain, not how to maintain the data).

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

The information required to be collected and maintained is specific to each employer and employee involved and is not available or duplicated by another source. The information required by this standard is available only from employers. At this time, there is no indication that any alternate source is available.

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

The information collection requirements of the Standard 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 information collection frequencies specified by this Standard are the minimum that OSHA believes are necessary to ensure that the employer and OSHA can effectively monitor the exposure and health status of employees working with asbestos in shipyards.

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

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

In accordance with paragraph (k)(3)(iii), once an employer has completed work subject to this standard, the employer must inform building/vessel or facility owner and any employers whose employees may be working in the area, of the current location and quantity of PACM and/or ACM that is remaining in the former regulated area and final monitoring results if any, within 10 days of completion of such work.

Paragraph (k)(4) requires, all employers who discover ACM and/or PACM on a worksite must convey information concerning the presence, location, and quantity of the newly discovered ACM and/or PACM to the owner and to other employers of employees working at the worksite, within 24 hours. This is also to ensure that everyone is aware that the toxin is present.

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

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

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

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3506(c)(2)(A)), OSHA published a **Federal Register** on November 4, 2008 (73 FR 65683, Docket No. OSHA-2008-0048) soliciting comments from the public and other interested parties on its extension of the information collection requirements contained in the Asbestos in Shipyards Standards. This notice is part of a preclearance consultation program intended to provide those interested parties the opportunity to comment on OSHA's request for an extension by the Office of Management and Budget (OMB) of a previous approval of the information collection requirements found in the Asbestos in Shipyards Standard. The Agency did not receive any comments regarding the proposed information collection request.

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

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

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

To ensure that the personal information contained in medical records required by the Standard remains confidential, the Agency developed and implemented § 1913.10 ("Rules of agency practice and procedure concerning OSHA access to employee medical records") to regulate access to these records.

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 reason 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.**

The paperwork requirements specified by the Standard do not 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 burden, 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 of OMB Form 83-I.

Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.

ESTABLISHMENTS

OSHA assumes that shipyard employees may be exposed to asbestos when repairing foreign or older vessels. The Agency assumes that of the 638 shipyards, the six largest shipyards do not repair vessels containing Asbestos lagging, for example, this work is contracted out. Of the remaining 632 shipyards, approximately half repair vessels that have little or no machinery, for example, barges and other small craft; therefore, employees would not engage in asbestos removal. In addition, OSHA assumes that each of the 316 remaining shipyards employ three employees; for a total of 948 employees who may be exposed to asbestos materials.

Wage Rates for Shipyards

The Agency determined average wage rates for Asbestos in Shipyards using average hourly earnings, including benefits, to represent the cost of employee time. The Agency adopted the mean wage rates from “*Employer Costs for Employee Compensation, June 2008*,” U.S. Department of Labor, Bureau of Labor Statistics <http://stats.bls.gov/home.htm>. Total compensation for these occupational categories includes an adjustment of 29.4 percent (*Employer Costs for Employee Compensation, June 2008*) for fringe benefits; this figure represents the average level of fringe benefits in the private sector. The costs of labor used in this analysis are, therefore, estimates of total hourly compensation. These hourly wages are:

Supervisors	\$42.96
Employees	\$27.17
Clerical/Secretary	\$22.06

**Table 1
Summary of Burden hours and Costs**

Information Collection Requirement	Current Burden Hours	Requested Burden Hours	Change	Estimated Cost
Multi-employer Worksites	1	15	14	\$644
Regulated Areas	0	0	0	\$0
Exposure Assessment and Monitoring	11	190	179	\$8,162
Notification of Monitoring Results	1	15	14	\$331
Methods of Compliance	13	13	0	\$558
Respirator Program	0	0	0	\$0
Emergency-Use Respirator Certification	0	0	0	\$0
Respirator Fit Testing	394	379	-15	\$13,290
Laundering Protective Clothing	0	0	0	\$0
Communication of Hazards				
Duties of Bldg. and Facility Owners	10	10	0	\$430
Duties of Employers	8	8	0	\$344
Criterion to Rebut PACM	0	0	0	\$0
Warning Signs and Labels	0	0	0	\$0
Employee Information and Training	446	431	-15	\$18,516
Medical Surveillance				
Medical Examinations	384	374	-10	\$10,162
Medical Questionnaires (Part I)	30	29	-1	\$788
Medical Questionnaires (Part II)	33	32	-1	\$869
Information Provided to Physician	20	20	0	\$441
Physicians Written Opinion	20	20	0	\$441
Objective Data Records	1	20	19	\$441
Exposure & Medical Records	21	35	14	\$772
Training Records	20	20	0	\$441
Records of Notification	1	1	0	\$22
Employee Access	10	10	0	\$221
Transfer of Records	1	1	0	\$22

OSHA Access	1	1	0	\$43
Total	1,426	1,624	198	\$56,938

Annual Burden Hour and Cost Determinations

Multi-employer worksites (§ 1915.1001(d))

OSHA estimates that 20% of the 316 employers (63) conduct sampling three times annually. As a clerical employee may not be present at a multi-employer worksite, OSHA assumes a manager takes 5 minutes (.08 hour) to post each notification.

Burden hours: 63 x 3 notifications annually x .08 hour = 15 hours

Cost: 15 hours x \$42.96 = \$644

Regulated Areas (§ 1915.1001(e))

All class I, II and III asbestos work is conducted within regulated areas that are demarcated. Employers may use signs as prescribed in section (k) of the standard. Burden for this activity is therefore addressed in that paragraph.

Exposure Assessments and Monitoring (§ 1915.1001(f))

Initial Assessment/Monitoring

The Agency estimates 316 employers conduct exposure assessment, and that 80% of these employers use means other than exposure-monitoring sampling, i.e., objective data, prior sampling, etc., to demonstrate compliance with the PEL. The remaining 20% of the employers conduct exposure-monitoring of the job sites. These employers take an average of three samples annually and each sample takes one hour of supervisor time to collect and mail the samples for analysis.

Burden hours: (20% x 316 employers) x 3 samples per year x 1 hour per sample = 190 hours

Cost: 190 hours x \$42.96 = \$8,162

Periodic monitoring

In addition to initial monitoring, employers must conduct periodic monitoring at various times when workers are being exposed above the PEL. However, OSHA assumes that no periodic monitoring occurs. Monitoring is expensive and it is more beneficial for employers to take other measures to ensure compliance with the PEL such as equipping employees with supplied-air respirators and following control methods outlined in the standard. Employers are assumed to use the least burdensome method to comply with exposure provisions and therefore no burden has been taken for periodic monitoring.

Notification of Monitoring Results (§ 1915.1001(f)(5))

It is assumed employers would choose the least costly method to comply with this provision which would be posting the results of the monitoring in a central location. Posting requires 5 minutes (.08 hour) of secretarial time.

Burden hours: (20% x 316 employers) x 3 samples per year x .08 hour = 15
hour

Cost: 15 hours x \$22.06 = \$331

Methods of Compliance (§ 1915.1001(g))

Provisions contained in this paragraph of the regulation require employers to use prescribed engineering controls and work practices, including monitoring and notifying employers of findings (paragraph (g)(4)(ii)(B)). The burden for this requirement is included under the exposure monitoring section or the methods of compliance section for alternate methods of compliance in the paperwork package (see narrative below).

The standard prescribes work practices for various operations involving asbestos. However, employers involved with Class I and II operations may choose to use an alternate control method. The paperwork burden for this requirement follows.

Alternative Control Methods for Class I Work

OSHA has received, on average, 7 notifications annually from employers who choose new or modified control technology to reduce exposures in Class I asbestos. OSHA estimates it takes a supervisor, on average, 1.83 hours to develop the alternative control methods.

Burden hours: 7 notifications x 1.83 hours = 13 hours

Cost: 13 hours x \$42.96 = \$558

Additional Controls for Class II Work

The Regulatory Impact Analysis (RIA) assumed that work in shipyards would be predominately Class I work, so no burden was assumed for Class II work.

Respiratory Protection (§ 1915.1001(h))

Respirator Program (§ 1915.1001(h)(3)(i))

Employers must institute a respiratory protection program in accordance with §1910.134. This burden is taken in the “Respiratory Protection” information collection request (OMB Control Number 1218-0099).

For the 11 projects, OSHA estimates a facility owner will take 45 minutes (.75 hour) to evaluate high risk jobs and five minutes (.08 hour) to notify persons; for a total of .83 hours.

Burden hours: 11 projects x .83 hour = 9 hours
Cost: 9 hours x \$42.96 = \$387

Notification by building owners to contractors (other employers)

Building owners take 3 minutes (.05 hour) to notify contractors. The universe is the same as above, 11 projects.

Burden hours: 11 projects x .05 hour = 1 hour
Cost: 1 hour x \$42.96 = \$43

Duties of Employers (§ 1915.1001(k)(2)(3))

Identification of ACM/PACM and Notification by Contractors to Building Owners

OSHA estimates the time to identify/document and notify owners of ACM/PACM in high risk projects is 30 minutes (.5 hour). Further, the Agency recognizes that there might be some overlap in the counting of building owners notification to contractors and this provision. Taking these assumptions into account, the RIA estimated that the weighted time for this provision would be .5 hour. The number of projects and compliance rate is the same as above.

Burden hours: 11 projects x .5 hour = 6 hours
Cost: 6 hours x \$42.96 = \$258

Notification by contractors to employees and employers

The time to notify employees and other employers at the project takes approximately 5 minutes (.08 hr). The number of projects is the same as above.

Burden hours: 11 projects x .08 hour = 1 hour
Cost: 1 hour x \$42.96 = \$43

Notification by contractors to owners on asbestos remaining in the building.

Within 10 days after a job is completed, the employers whose employees have performed the asbestos work are required to inform the building owners of remaining asbestos. The number of projects and the compliance rate are the same as above. It takes a contractor 5 minutes (.08 hour) to perform this notification.

Burden hours: 11 projects x .08 hour = 1 hour
Cost: 1 hour x \$42.96 = \$43

In addition to the above requirements, all employers who discover ACM and/or PACM on a worksite shall convey information concerning the presence, location and quantity of the newly discovered ACM and/or PACM to the owner and to other employers of employees working at the work site, within 24 hours of the discovery. The burden for this activity is accounted for in the above notification estimates.

Criteria to Rebut the Designation of Installed Material as PACM (§ 1915.1001(k)(5))

An employer or owner may demonstrate that PACM does not contain asbestos by conducting inspections and tests of the materials. If the material is not ACM, building owners and/or employers are not required to communicate the information, however they must retain information of the results. This evaluation was to be conducted for buildings constructed before 1981. Burden for this evaluation was taken in a previous information collection request. Since this was a one time event, there is no recurring burden.

Warning Signs (§ 1915.1001(k)(6) and (7))

Under this section warning signs are to be posted and displayed at each regulated area. The standard provides the language to be included on the signs, therefore no burden is assumed for this provision.

Labels (§ 1915.1001(k)(8)(i), (ii) and (iii))

Under this section warning labels are to be affixed to all products containing asbestos and to all containers containing such products. The standard provides the language to be included on the labels; therefore, no burden is assumed for this provision.

Employee Information and Training (§ 1915.1001(k)(9))

Qualified person training (§ 1915.1001(o)(4))

The RIA assumed that shipyard work is predominately Class I work, and so no burden is taken for the other classes of work. Twenty percent of the 948 employees, 190 employees, are trained annually. OSHA assumes a turnover rate of 1.3, and training takes 32 hours. Other variables include that some employers were already providing training that would meet OSHA requirements under the EPA regulation and a greater number of employees would receive the shorter-length training courses. Further, OSHA assumes 20 employees can be trained in one training session.

Burden hours: (190 employees ÷ 20 sessions] x 1.3 turnover rate x 1 time per year x 32 hours = 395 hours

Cost: 395 hours x \$42.96 = \$16,969

In addition to training for Class I, II, III & IV employees, the standard (§ 1915.1001(o)) requires employers to provide training for qualified persons. The training method and length will also vary depending on the nature of the qualified person's work. For example, in Class I and II asbestos work, the qualified person must be trained in all aspects of asbestos removal and

handling. Qualified persons involved in Class III and IV asbestos work must receive training equivalent in curriculum and training method to the 16-hour Operations and Maintenance course developed by EPA for maintenance and custodial workers. The RIA assumed that 20% of 88.5 qualified persons or 18 qualified persons would be trained in 20-person training sessions. A non-compliance rate of 0.2 and training of 40 hours were assumed.

Burden hours: $[18 \text{ qualified persons} \div 20 \text{ sessions}] \times 1 \text{ time per year} \times 40 \text{ hours} = 36$
hours

Cost: $36 \text{ hours} \times \$42.96 = \$1,547$

Medical Surveillance (§ 1915.1001(m))

Medical Examinations (§ 1915.1001(m)(2))

OSHA assumes 20% of the 948 employees (190 employees) require examinations annually and such examinations take 1.5 hours of employee time per examination (this includes 30 minutes of travel time). An employee turnover rate of 30% is used in the equation. Therefore, the total number of employees receiving a medical examination is 256 employees.

Burden hours: $[190 \text{ employees} + (197 \times 30\% \text{ turnover rate})] \times 1 \text{ per year} \times 1.5$
hours = 374 hours

Cost: $374 \text{ hours} \times \$27.17 = \$10,162$

Medical Questionnaire (§ 1915.1001(m)(2)(ii)(B)) Part I

As part of the initial examination, Part I of a medical questionnaire is administered. Completing the questionnaire takes 30 minutes (.50 hour) for each new employee/examination. The number of new employees is based on a 30% turnover rate for the 190 employees (20% of the 948) subject to medical surveillance for a total of 30 hours.

Burden hours: $190 \text{ employees} \times 30\% \text{ turnover rate} \times 1 \text{ per year} \times .50 \text{ hour} = 29 \text{ hours}$

Cost: $29 \text{ hours} \times \$27.17 = \$788$

Medical Questionnaire (§ 1915.1001(m)(2)(ii)(B)) Part II

As part of the annual medical examination, a follow-up medical questionnaire is administered for each employee. The abbreviated questionnaire takes each of the 190 employees receiving the annual medical examinations 10 minutes (.17 hour) to complete.

Burden hours: $190 \text{ examinations} \times 1 \text{ per year} \times .17 \text{ hour} = 32 \text{ hours}$

Cost: $32 \text{ hours} \times \$27.17 = \$869$

Information Provided to the Physician (§ 1915.1001(m)(3))

Employers provide information for 247 employees. A clerical takes 5 minutes (.08 hour) to provide this information to the examining physician.

Burden hours: 247 employee medical examinations x .08 hour = 20 hours
Cost: 20 hours x \$22.06 = \$441

Physician's Written Opinion (§ 1915.1001(m)(4))

As stated above, the estimated number of examinations is based on the current and new employees, and 5 minutes of secretarial time (.08 hour).

Burden hours: 247 employee medical examinations x .08 hour = 20 hours
Cost: 20 hours x \$22.06 = \$441

Recordkeeping (§ 1915.1001 (n))

The Agency estimates that it takes a secretary 5 minutes (.08 hour) to maintain records associated with objective data, exposure-monitoring, and medical records. Also that it takes 5 minutes to make the records available to employees.

Objective Data

The Agency assumes that 80% of the employers use objective data to exempt themselves from performing exposure-monitoring. Therefore, the burden is as follows:

Burden hours: (80% x 316 employers) x 1 sample per year x .08 hour = 20 hour
Cost: 20 hour x \$22.06 = \$441

Exposure Monitoring

Burden hours: (20% x 316 employers) x 3 samples per year x .08 hour = 15 hour
Cost: 15 hour x \$22.06 = \$331

Medical Records

Burden hours: 247 medical examinations x .08 hour = 20 hours
Cost: 20 hours x \$22.06 = \$441

Training Records

Note: The 1.3 turnover rate equates to (190 employees + (190 x 30%)).

Burden hours: 190 employees x 1.3 turnover rate x 1 per year x .08 hour = 20 hours
Cost: 20 hours x \$22.06 = \$441

Records of Notifications by Building Owners

Burden hours: 11 Projects x 1 time per year x .08 hour = 1 hour

Cost: 1 hour x \$22.06 = \$22

Employee Access to Records

The Agency assumes that 10% of the employees will request to see his/her records annually, therefore, the burden and cost associated is as follows:

Burden hours: 948 employees x 10% x 1.3 turnover rate x .08 hour = 10 hours

Cost: 10 hours x \$22.06 = \$221

OSHA Access to Records

The previous ICR estimates OSHA conducts 4 inspections a year. It takes a supervisor 5 minutes (.08 hour) to disclose records to compliance officer, thus the burden and cost is as follows:

Burden hours: 4 inspections x .08 hour = 1 hour

Cost: 1 hour x \$42.96 = \$43

Transfer of Records

Whenever the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify and transfer the records to NIOSH. In the past, NIOSH received asbestos records relating to construction and burden was accounted for in the construction paperwork package. Based on the previous ICR, no records will be transmitted for shipyards; however, to allow for any future transfers of any asbestos in shipyard records to NIOSH during the period of this clearance, the Agency has allocated 1 burden hour at a cost of \$22.06 to process each record or \$22.

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).

The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.

If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.

Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.

Exposure monitoring

The Agency assumes that employers will incur costs for analyzing and supplies used in monitoring the employees. Twenty percent of the 316 employers conduct exposure-monitoring. The Agency assumes a cost of \$30 per sample; this includes supplies used and the analysis of the sample taken. The costs are as follows:

Cost: 316 employers x 20% x 3 samples per year x \$30 = \$5,688

Medical Examinations

The Agency assumes that employers will incur a cost of \$130 per exam. The total cost is as follows:

247 employee medical examinations x \$130 = \$32,110

TOTAL COST UNDER ITEM 13: \$37,798

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.**

The Asbestos Standard requires that if an employer ceases to do business and there is no successor to preserve and maintain employee records for the required periods of time, the records must be transmitted to NIOSH. Also, at the expiration of the retention period for the records required to be maintained, employers must notify NIOSH at least three months prior to the disposal of such records and transmit those records to NIOSH if requested within the period.

The cost to the Federal government consists of the costs associated with processing records from employers who cease to do business and have no successor to preserve and maintain employee records, or when the retention period for those records has expired and NIOSH has requested the records be transmitted to them. OSHA determines the cost by contacting NIOSH to learn how many records NIOSH has received from employers in the past year. OSHA then uses this figure to estimate the number of records NIOSH will receive in the future.

However, to allow for any future transfer of records to NIOSH during the period covered by this clearance, we have allocated a burden of one hour for the request. NIOSH estimated that 15 records can be processed in one hour at a cost \$15.00 per hour. Therefore, the Federal cost for records transfer is estimated to be \$15.00 per year.

Federal Inspections

The Agency assumes that it will take a compliance officer (GS 12, step 5) who earns \$39.70 (www.opm.gov) per hour 10 minutes to review the records. Therefore, the cost to the Federal Government related to inspections is as follows:

$$4 \text{ inspections} \times \$39.70 \times .17 \text{ hour} = \$27$$

15. Explain the reasons for any program changes or adjustments.

OSHA increased the number of employers who may have asbestos in the workplace from 19 to 316. Therefore, the Agency is requesting an adjustment increase in burden hours and burden 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 of information, completion of report, publication dates, and other actions.

The information required to be collected by the Asbestos in Shipyards Standard will not have results that will be published for statistical use.

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.

There are no forms on which to display the expiration date.

18. Explain each exception to the certification statement in ROCIS.

OSHA is not requesting an exception to the certification statement in ROCIS.