## SUPPORTING STATEMENT FOR THE INFORMATION COLLECTION REQUIREMENTS FOR THE STANDARD ON PERMIT-REQUIRED CONFINED SPACES (29 CFR 1910.146)<sup>1</sup> (OFFICE OF MANAGEMENT AND BUDGET (OMB)) CONTROL NO. 1218-0203 (August 2018)

This ICR seeks to extend, without change, PRA authority to the Permit-Required Confined Spaces Standard information collection codified in regulations 29 CFR 1910.146 for 3 years.

#### 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 objective of the Occupational Safety and Health Act of 1970 (i.e., "the 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 Act authorizes "the development and promulgation of occupational safety and health standards" (29 U.S.C. 651).

Section 6(b)(7) of the Act specifies that "[a]ny standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure." This provision goes on to state that "[t]he Secretary, in consultation with the Secretary of Health and Human Services, may by rule promulgated pursuant to section 553 of title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning . . . as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulgation of the relevant standard" (29 U.S.C. 655).

With regard to recordkeeping, the 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 Act states further that "[t]he Secretary . . . shall prescribe such rules and

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

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 Act, the Occupational Safety and Health Administration (i.e., "OSHA" or "the Agency") published at 29 CFR 1910.146 a safety standard for general industry regulating permit-required confined spaces (i.e., "the Standard"). The paperwork provisions of the Standard specify requirements for developing and maintaining inspection records.

# 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.

The Standard specifies a number of collection of information requirements. The information collection requirements are used by employers and employees whenever entry is made into permit-required confined spaces. The following sections describe who uses the information collected under each requirement, as well as how they use it. The purpose of the information is to ensure that employers systematically evaluate the dangers in permit spaces before entry is attempted, and to ensure that adequate measures are taken to make the spaces safe for entry. In addition, the information is needed to determine, during an OSHA inspection by a compliance safety and health officer, if employers are in compliance with the Standard.

Section 1910.146(c)(2) requires the employer to post danger signs to inform exposed employees of the existence and location of, and the danger posed by, permit spaces.

Section 1910.146(c)(4) requires the employer to develop and implement a written "permit-space program" when the employer decides that its employees will enter permit-spaces. The written program is to be made available for inspection by employees and their authorized representatives. Section 1910.146(d) provides the employer with the requirements of a permit-required confined space program ("permit-space program") required under this paragraph.

Section 1910.146(c)(5)(i)(E) requires that the determinations and supporting data specified by paragraphs (c)(5)(i)(A), (c)(5)(i)(B), and (c)(5)(i)(C) of this section are documented by the employer and are made available to each employee who enters a permit space or to that employee's authorized representative.

Under paragraph (c)(5)(ii)(H) of §1910.146, the employer is required to verify that the space is safe for entry and that the pre-entry measures required by paragraph (c)(5)(ii) of this section have been taken, using a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification is to be made before entry

and is required to be made available to each employee entering the space or to that employee's authorized representative. Sections 1910.146(c)(5)(ii)(C) and (c)(5)(ii)(F) require atmospheric hazard testing.

Section 1910.146(c)(7)(iii) requires the employer to document the basis for determining that all hazards in a permit space have been eliminated using a certification that contains the date, the location of the space, and the signature of the person making the determination. The certification is to be made available to each employee entering the space or to that employee's authorized representative.

Section 1910.146(c)(8)(i) requires that the employer inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of this section. Section 1910.146(c)(8)(ii) requires that the employer apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space. Section 1910.146(c)(8)(iii) requires that the employer apprise the contractor of any precautions or procedures that the host employer has implemented for the protection of employees in or near permit spaces where contractor personnel will be working. Section 1910.146(c)(8)(v) requires the employer to debrief the contractor at the conclusion of the entry operations regarding the permit space program followed and regarding any hazards confronted or created in permit spaces during entry operations.<sup>2</sup>

Section 1910.146(c)(9)(iii) requires that the contractor inform the host employer of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation.<sup>3</sup>

This section identifies usual and customary communications between employers, contractors, and employees; therefore, it does not impose burden hours or costs on the employer. For example, as a matter of business practice, information about hazards and permit-confined spaces, etc., would be conveyed to contractors during initial discussions of work to be performed. Estimated burden hours and costs for establishments not in compliance with these requirements are included in Item 12, below.

<sup>3</sup>This section identifies usual and customary communications between employers, contractors, and employees; therefore, it does not impose burden hours or costs on the employer. For example, as a matter of business practice, information about hazards and permit-confined spaces, etc., would be conveyed to contractors during initial discussions of work to be performed. Estimated burden hours and costs for establishments not in compliance with these requirements are included in Item 12, below.

Section 1910.146(d)(5)(iii) provides for testing of atmospheric hazards.<sup>4</sup> Section 1910.146(d)(5) (vi) requires the employer to immediately provide each authorized entrant or that employee's authorized representative with the results of any testing conducted in accordance with paragraph (d) of this section.

Section 1910.146(d)(14) requires employers to review the permit space program, using the canceled permits retained under paragraph (e)(6) within 1 year after each entry and revise the program as necessary, to ensure that employees participating in entry operations are protected from permit space hazards.

Section 1910.146(e)(1) requires the employer to document the completion of measures required by paragraph (d)(3) by preparing an entry permit before employee entry is authorized. Paragraph (f) of §1910.146 specifies the information to be included on the entry permit. Paragraph (e)(3) requires that the employer make the completed permit available at the time of entry to all authorized entrants by posting the permit at the entry portal or by any other equally effective means, so that the entrants can confirm that pre-entry preparations have been completed. Paragraph (e)(6) requires the employer to retain each canceled entry permit for at least one year; any problems encountered during an entry operation must be noted on the pertinent permit so that revisions to the permit space program can be made.

Section 1910.146(g)(4) requires that the employer certify that the training required by paragraphs (g)(1) through (g)(3) has been accomplished by preparing a written certification record.<sup>5</sup>

Section 1910.146(h)(3) requires the employer to ensure that all authorized entrants communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required by paragraph (l)(6) of the Standard. Section 1910.146(h)(4) requires the employer to ensure that all authorized entrants alert the attendant whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation (paragraph (h)(4)(i)), or the entrant detects a prohibited condition (paragraph (h)(4)(ii)).

<sup>4</sup> The Agency believes the burden hours and costs associated with testing of atmospheric hazards, and recording those results on the permit, are included in the burden hours and costs for the permit. Note: There are document retention requirements in other OSHA standards, such as the 30-year retention period for employee exposure records required by 29 CFR 1910.1020(d) (Preservation of records) which may apply to this documentation. See definition of "employee exposure record" at 29 CFR 1910.1020(c)(5). Employee exposure records retention is covered under OMB Control # 1218-0065, "Access to Employee Exposure and Medical Records."

<sup>5</sup> OSHA is not taking burden for this activity under Item 12 of this Supporting Statement. However, the Agency retains burden hours and costs related to training certification.

<sup>6</sup> These sections identify usual and customary communications between employers, contractors, and

Section 1910.146(i)(5) requires the employer to ensure that each attendant communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space under the conditions specified in paragraphs (i)(6)(i)-(i)(6)(iv) of the Standard. Section 1910.146(i)(7) requires the employer to ensure that the attendant summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards. Section 1910.146(i)(8) requires that the employer ensure that the attendant warn unauthorized persons that they must stay away from the permit space (paragraph (i)(8)(i)); advise unauthorized persons that they must exit immediately if they have entered the permit space (paragraph (i)(8)(ii)); and inform authorized entrants and the entry supervisor if unauthorized persons have entered the permit space (paragraph (i)(8)(iii)).

Section 1910.146(j)(2) requires the employer to ensure that each entry supervisor verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.<sup>7</sup>

Section 1910.146(k)(1)(i) requires the employer to evaluate a prospective rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified; Section 1910.146(k)(1)(ii) requires the employer to evaluate a prospective rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular permit space or types of permit spaces identified. Section 1910.146(k)(1)(iv) requires that the employer inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site. Section 1910.146(k)(1)(v) requires that the employer to provide the rescue team or service selected with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans. 9

employees. Estimated burden hours and costs for establishments not in compliance with these requirements are included in Item 12, below.

<sup>7</sup> The burden hours and costs associated with endorsing the permit are considered part of the cost of the permit.

<sup>8</sup> OSHA considers these assessment provisions to be performance-oriented and, therefore, is not taking burden for the requirements under Item 12 below.

<sup>9</sup> The burden hours and costs of developing an in-house rescue plan are part of the cost of program development.

Section 1910.146(k)(2)(ii) requires that the employer train affected employees to perform assigned rescue duties. The employer must ensure that such employees successfully complete the training required to establish proficiency as an authorized entrant, as provided by paragraphs (g) and (h) of this section. Section 1910.146(k)(2)(iii) requires that the employer train affected employees in basic first-aid and cardiopulmonary resuscitation (CPR).<sup>10</sup>

Section 1910.146(k)(4) requires that if an injured entrant is exposed to a substance for which a "Material Safety Data Sheet" (MSDS) [now referred to as a SDS (Safety Data Sheet)] or other similar written information is required to be kept at the worksite, that the employer make the MSDS or written information available to the medical facility treating the exposed entrant.<sup>11</sup>

Section 1910.146(l)(1) requires that employers consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program required by paragraph (c).<sup>12</sup>

Section 1910.146(l)(2) requires that employers make all information required to be developed by this section available to affected employees and their authorized representatives.

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

<sup>10</sup> The requirement that employers provide training to workers under these provisions is not considered to be a collection of information. OSHA is not taking burden for training delivery under Item 12 of this Supporting Statement. The Agency assumes that the cost of training records associated with this activity are included in the general training records burden hours and costs under Item 12.

<sup>11</sup> The burden hours and cost for SDS accessibility is taken under OMB Control Number 1218-0072 (the Hazard Communication Standard (HCS) ICR).

<sup>12</sup>The burden hours and costs of the employee consultation provision are included in the burden hours and costs for the development of the written program.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purpose(s) described in A.2 above.

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

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

The collection of information requirements specified by 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 or is not conducted less frequently, and any technical or legal obstacles to reducing the burden.

The Agency believes that the information collection frequencies required by the Standard are the minimum frequencies necessary to effectively regulate permit-required confined spaces and, thereby, fulfill its mandate "to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources" as specified in the Act at 29 U.S.C. 651. Accordingly, if employers do not perform the required information collection, or delay in providing this information, employees may be subject to an increased risk of death and serious injury when working in permit-required confined spaces.

- 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 confidentially 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 confidentially to the extent permitted by law.

No special circumstances exist that require employers to collect information using the procedures specified by this item. The requirements are within 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 those comments. Specifically address comments received on cost and hour burdens.

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 three 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 notice in the *Federal Register* on May 22, 2018 (83 FR 23724) requesting public comment on its proposal to extend the Office of Management and Budget's approval of the collection of information requirements found in the Standard on Permit-Required Confined

Spaces (29 CFR 1910.146). This notice was part of a preclearance consultation program that provided the general public and government agencies with an opportunity to comment.

The Agency received one comment in response to this notice from Mr. Samuel Kambui. Mr. Kambui provides extensive comments on the nature of confined spaces hazards and suggested improvements in use of technology could be used to reduce burdens on employers, including paperwork burdens. He also expresses concern that the "proposal would increase the burden of information collection and reporting for all confined space related permits," and objected to some of the burden and cost calculations specified by the PRA.

#### **OSHA's Response:**

The Agency appreciates the comment and shares in the commenter's concern about workplace injury, illness or death resulting from work in confined spaces. Much of the comment, however, addresses areas beyond the scope of this Information Collection Request (ICR) review.

OSHA is not proposing any new regulatory action through this ICR review. As noted earlier in this ICR package, the PRA requires OSHA to periodically request re-approval from OMB for its authority to continue collection of information in a given standard. As part of this process, OSHA must update its previous estimates for the burdens and costs of these collections.

The estimated increase in burden hours in this ICR is not related to any change in the existing requirements of the standard, so the commenter's concern about OSHA's "proposal" increasing the burden on employers is misplaced. The basis for the estimated increase in burden hours is a result of the Agency's use of updated U.S. Census Bureau 2015 County Business Patterns (CBP) Survey data in the analysis. The 2015 CBP is the latest available data identified by the Agency. This is explained in Item 12 of the Supporting Statement. The Agency uses this same methodology every three years when seeking renewed OMB approval for the information collection requirements of the standard, to comply with the Paperwork Reduction Act (PRA). As the Census Bureau indicators increase and decrease over the three year period of OMB approval, the ICR estimates increase and decrease in the same manner.

Although the commenter recognizes that "[t]his is a simple extension of the currently approved collection," he also asserts that the action "represents an increase in the burden of proof" and questions the utility of some of the information collections. "Burden of proof" is a legal standard unrelated to the PRA, and OSHA does not see the connection between updating an ICR and altering a "burden of proof." The Agency believes this Supporting Statement adequately explains the utility of each information collection requirement associated with the standard.

The commenter also indicates his support for ensuring PPE is available, and for increasing the use of training, checks for compliance, and the use of sensors and other technology to warn

workers of hazards in confined spaces, as well as other actions. Such actions could only be accomplished with a rulemaking proceeding to revise the regulatory text of the standard; this ICR is unrelated to any rulemaking action. To the extent that the commenter is suggesting that OSHA change its standard to remove the longstanding permit process and instead rely solely on sensors and other technology to protect workers, OSHA takes that under advisement for consideration in future rulemaking projects but cannot make such a change through this ICR.

The commenter also provided several suggestions with respect to the types of burdens and costs that the Agency should be including in the ICR. One of these suggestions was that the Agency was not capturing fully the cost of the information collections pertaining to atmospheric monitoring in confined spaces. After careful review of the 1992 economic analysis associated with the original rulemaking for the standard, the Agency has identified costs related to atmospheric testing monitoring equipment and the labor costs to use such equipment. The RIA describes the equipment as oxygen, flammability and toxic meters and as instruments which are typically portable and designed to measure for a wide range of atmospheres. Where appropriate, a long probe fitted to the instrument allows employees to measure the atmospheric conditions without entering the space. Accordingly, the Agency has added atmospheric testing and monitoring costs to Item 12 (labor costs to use equipment in new section (L)) and Item 13 (costs for equipment purchase and operation and maintenance) of the ICR analysis.

The commenter also suggested that in the ICR OSHA should account for agency inspection costs, "slowed productivity" and opportunity costs, and the risk of worker death or injury. OSHA disagrees. The PRA and implementing regulations specify the information to be included in the ICR. The Agency's inspection activities are exempt from consideration under the PRA. Likewise, "slowed-productivity" and opportunity costs are not costs the Agency is required to address in its PRA analysis. And finally, unlike a rulemaking action, an ICR does not evaluate the risks associated with death or injury in conducting analysis under the PRA. Such risks are not a "collection of information" as defined under the PRA and the relevant regulations. The PRA analysis only addresses the burden hours and costs of the information collection requirements of the standard.

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

The Agency will <u>not</u> provide payments or gifts to the respondents.

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

The paperwork requirements specified by the Standard do not involve confidential information.

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

None of the provisions in the Standard require 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.
- Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.
   The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in item 14.

#### **Burden-Hour and Cost Determinations**

Estimates of the burden hours for each collection of information requirement are shown below. Information regarding the number of permit spaces, establishments with permit spaces, and permit space entrants were based on information derived from Table II-1 of the Final Regulatory Impact Analysis and Regulatory Flexibility Analysis (RIA) of the final Permit-Required Confined Space Standard (58 FR 4542, January 14, 1992).

First, the Agency determined the ratio between the numbers of establishments with permit spaces, number of permit spaces, and number of permit space entrants in the 1992 Analysis and then applied this ratio to update the numbers of establishments with permit spaces and permit space entrants. Second, OSHA updated the Standard Industrial Classification (SIC) Codes used in the 1992 Analysis to the North American Industry Classification System (NAICS) codes<sup>13</sup>; then used the number from the U.S. Census Bureau's 2015 County Business Patterns Survey to determine the number of new establishments. Third, OSHA applied the ratio from the 1992 Analysis to the new establishments to arrive at new estimates for the number of permit spaces, establishments with permit spaces, and permit space entrants.

#### I. RESPONDENT BURDEN-HOUR AND COST BURDEN DETERMINATIONS

The Agency determined the wage rates from mean hourly wage earnings to represent the cost of employee time. For the relevant standard occupational classification category, OSHA used the wage rates reported in the Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Employment Statistics (OES)*, *May 2017* [date accessed: April 23, 2018]. (OES data is available at <a href="https://www.bls.gov/oes/tables.htm">https://www.bls.gov/oes/tables.htm</a>. To access a wage rate, select the year, "Occupation Profiles," and the Standard Occupational Classification (SOC) code.)

To account for fringe benefits, the Agency used the Bureau of Labor Statistics' (BLS) *Occupational Employment Statistics (OES) (2017).* Fringe markup is from the following BLS release: *Employer Costs for Employee Compensation* news release text; released 10:00 AM (EDT), March 20, 2018 (<a href="https://www.bls.gov/news.release/pdf/ecec.pdf">https://www.bls.gov/news.release/pdf/ecec.pdf</a>). BLS reported that for civilian workers, fringe benefits accounted for 31.7 percent of total compensation and wages accounted for the remaining 68.3 percent. To calculate the loaded hourly wage for each occupation, the Agency divided the mean hourly wage rate by 1 minus the fringe benefits.

WAGE HOUR ESTIMATES <sup>14</sup>									
Occupational Title	Standard Occupation Code	Mean Hour Wage Rate (A)	Fringe Benefits (B)	Loaded Hourly Wage Rate (C) = (A)/((1-(B))					
Professional/Manager	51-1011	\$30.13	.317	\$44.11					
Clerical/Secretary	43-6014	\$17.75	.317	\$25.99					
Non-supervisory	51-0000	\$18.30	.317	\$26.79					

<sup>13</sup>See Table A at the end of this document for a complete list of establishments, permit-confined spaces, and permit-confined space entrants.

<sup>14</sup> Source: *Employer Costs for Employee Compensation, Supplementary Table 2*. U.S. Department of Labor, Bureau of Labor Statistics, December 2017.

laborer:		

# (A) Preparation of a "Danger--Permit Required Confined Space" Sign (§ 1910.146(c)(2))

OSHA estimates that approximately 4,576,718 permit spaces are entered annually, half of which (2,288,359) are susceptible to inadvertent entry and, therefore, must be marked by a warning sign. Signs are expected to last five years (averaged out to an annual rate of 20 percent).

The language for the required warning sign is provided by the Standard (i.e., "Danger–Permit-Required Confined Space. Do Not Enter"). Therefore, in accordance with Section 1320.3(c)(2) of the Paperwork Reduction Act of 1995 (PRA-95), this requirement does not fall within the definition of a collection of information. However, OSHA allows the employer to use "similar" language on the warning sign if desired. The Agency believes an employer would only rarely opt for the similar language; therefore, for purposes of this supporting statement, OSHA estimates that 2 percent of the susceptible spaces will include a warning sign with language other than that provided by OSHA. OSHA estimates that it takes five minutes (.08 hour) for a laborer to make up the language for these signs.

Burden hours: 2,288,359 spaces  $\times$  .02  $\times$  .20  $\times$  .08 hour = 732 hours Cost: 732 hours  $\times$  \$26.79 = \$19,610

# (B)(1) Preparation of a written permit-space entry program (§§ 1910.146(c)(4), 1910.146(d) and 1910.146(l)(1))

Employers whose employees enter permit spaces are required to develop, implement, and use an entry permit system that includes written procedures describing how permits are to be issued at the establishment. OSHA estimates that there are 210,281 establishments, with 4,576,718 permit spaces, subject to these provisions. The RIA states that an employer without a written program can expect to spend a minimum of 16 hours developing a written program. Since the Standard has been in effect for a number of years, OSHA believes that existing establishments have already prepared and implemented their permit-space entry program. The Agency has no definitive number of new establishments that will be required to develop a written program; therefore, the Agency is using an estimate of 5 percent of the total number of establishments (10,514) to account for new establishments that must prepare a written permit space entry

program. For purposes of this paperwork package, OSHA is assuming that all "new" establishments have no written program.

Burden hours: 10,514 new establishments  $\times$  16 hours = 168,224 hours

Cost:  $168,224 \text{ hours} \times \$44.11 = \$7,420,361$ 

# (B)(2) Annual review of written permit space entry program and cancelled permits §§ 1910.146(d)(14) and (e)(6))

Based on the RIA, OSHA estimates 2 hours of supervisor time to review and revise 99,884 (50% of 199,767<sup>15</sup>) written permit space programs and the related cancelled permits and other available information annually. The burden hour and cost estimates for reviewing and revising the written program are:

Burden hours: 99,884 permit programs  $\times$  2 hours = 199,768 hours

Cost: 199,768 hours × \$44.11 = \$8,811,766

# (C) Documentation of determinations and supporting data required for entries using the alternative procedures (§ 1910.146(c)(5)(i)(E))

The Agency estimates that approximately 2,302,819 million permit spaces will be entered each year under the alternative procedures allowed in paragraph (c)(5) of the Standard. A documentation of the determinations and supporting data (required by paragraphs (c)(5)(i)(A), (c)(5)(i)(B), and (c)(5)(i)(C)) for each entry under the alternative procedures must be maintained by the employer and disclosed to each employee who enters a permit space. OSHA believes that the process takes 15 minutes (.25 hour); accordingly, the Agency estimates that the total annual burden hours and cost of documenting determinations and supporting data required for entries using the alternative procedures is:

Burden hours: 2,302,819 permit spaces to be entered annually using the alternative

procedures × .25 hour required to complete documentation = 575,704

hours

Cost:  $575,704 \text{ hours} \times \$26.79 = \$15,423,137$ 

<sup>15</sup>The Agency subtracted 10,514 establishments from the total, 210,281 establishments, since burden hours and costs were attributed to them for developing a new program.

<sup>16</sup>The previous ICR estimated that there were 2,207,351 million permit spaces entered each year under the alternative procedures discussed in this section. Given that the total number of permit spaces increased by 4.325 percent, it was assumed that the number of permit spaces discussed in this section increased by 4.325 as well.

## (D) Written certification for the alternative procedures (§ 1910.146(c)(5)(ii)(H))

OSHA believes that approximately 2,302,819 permit spaces will be entered each year under the abbreviated permit system. A written certificate must be prepared in accordance with paragraph (c)(5)(ii)(H) of the Standard for each of these entries. OSHA estimates that it will take three minutes (.05 hour) to generate and maintain the written certification (one-year retention).

Burden hours: 2,302,810 permit spaces  $\times$  .05 hour to generate and maintain the written

certificate = 115,141 hours

Cost: 115,141 hours  $\times$  \$26.79 = \$3,084,627

# (E) Written certification that all hazards have been eliminated (reclassification of a permit space) (§ 1910.146(c)(7)(iii))

The Agency estimates that approximately 195,571 permit spaces will be reclassified each year under paragraph (c)(7) of the Standard.<sup>17</sup> A certificate must be prepared in accordance with paragraph (c)(7)(iii) for each of these entries. OSHA estimates that it takes 3 minutes (.05 hour) to generate and maintain the certification.

Burden hours: 195,571 permit spaces to be entered annually under the reclassification

 $\times$  .05 hour to generate and maintain (one year retention) = 9,779 hours

Cost:  $9,779 \text{ hours} \times \$26.79 = \$261,979$ 

# (F) Information Exchange – Host Employer and Contractor (§ 1910.146(c)(8)(i), (c)(8) (ii), (c)(8)(iii), (c)(8)(v) and (c)(9)(iii))

The Agency believes that the information exchange requirements between employer and contractor are usual and customary communications at most establishments. The Agency has no reliable data to estimate the information exchange costs between host employers and their contractors. For purposes of estimating burden hours and costs only, OSHA estimates that approximately 2,103 establishments (1% of the estimated 210,281 establishments with permit spaces) are not in compliance with the required communications associated with contractor permit space operations. The Agency estimates that a host employer would communicate with one contractor for an average of 8 minutes (.13 hours) for these requirements.

Burden hours: 2,103 establishments x 2 parties x .13 hours to exchange information = 547 hours

<sup>17</sup>The previous ICR estimated that there were 187,463 permit spaces covered under this paragraph. As discussed above, the Agency assumes that the number of permit spaces discussed in this section increased by 4.325 percent.

Cost: 547 hours x \$44.11 = \$24,128

#### (G) Written entry permits (§ 1910.146(e) and (f))

OSHA estimates that approximately 1,857,924 permit spaces will be entered each year under the full permit system.<sup>18</sup> A complete written permit, prepared in accordance with paragraph (f) of the standard, must be generated for each of these entries, made available to authorized entrants by posting it, and retained for one year. Employers must note any problems encountered during an entry operation on the permit so that appropriate revisions to the permit space program can be made. The Agency estimates it takes an average of 15 minutes (.25 hour) for a non-supervisory employee to generate, post, and maintain each entry.

Burden hours: 1,857,923 permit spaces  $\times$  .25 hour = 464,481 hours

Cost: 464,481 hours  $\times$  \$26.79 = \$12,443,446

## (H) Certification of training (§ 1910.146(g)(4))

A certification record of training must be maintained for all existing employees. Accordingly, OSHA estimates that there are approximately 1,471,634 employees who enter permit spaces annually. OSHA believes that each year 10 percent of these employees (147,163) are considered new employees or are assigned new duties that will require that they receive new training. A new record of training must be generated and maintained for these employees.

OSHA believes it takes one minute (.02 hour) for a secretary to maintain the training certification for each existing employees), and three minutes (.05 hour) to generate and maintain the training certification for new or retrained employees. Thus, the burden hours for this provision are:

Burden hours: 1,324,471 existing employees  $\times$  .02 hour to maintain record = 26,489

hours

Cost:  $26,489 \text{ hours} \times \$25.99 = \$688,449$ 

Burden hours: 147,163 new/retrained employees × .05 hour to generate and maintain

record = 7,358 hours

Cost: 7,358 hours  $\times$  \$25.99 = \$191,234

<sup>18</sup>The previous ICR estimated that there were 1,780,900 million permit spaces covered under this paragraph. As discussed above, the Agency assumes that the number of permit spaces discussed in this section increased by 4.325.

# (I) Information Exchange – Authorized Entrants (§ 1910.146(h)(3) and h)(4)) and Attendants (§ 1910.146(i)(5), (i)(6), (i)(7), and (i)(8))

The RIA estimated that an additional 114,352 attendants would be necessary in industry to comply with the Standard. Applying a ratio of the increase in employees affected by the Standard, the Agency estimates 125,444 attendants.<sup>19</sup> The Agency estimates that an attendant would engage in 15 minutes (.25 hours) of communication, on average, with authorized entrants.

The Agency has no reliable data on which to estimate the number of authorized entrants engaged in communications with an attendant during permit space operations. For purposes of estimating burden hours and costs only, the Agency estimates that one authorized entrant will communicate with each attendant not in compliance.

Burden hours: (125,444 attendants + 125,444 authorized entrants) x .25 hours to

communicate = 62,722 hours

Cost: 62,722 hours x \$26.79 = \$1,680,322

In addition, for the one per cent (45,767) of entries (one percent of the 4,576,718 total permit spaces) which an attendant observes unsafe conditions, one minute (.02 hours) to alert authorized entrants of the need to evacuate the permit space; for the 458 entries estimated to involve rescue operations (see below), two minutes (.03 hours) to recognize unsafe conditions, summon rescue (and other emergency services, if necessary) as soon as the attendant determines that assistance is needed, and inform the employer when a non-entry or entry rescue begins or an authorized entrant may need medical aid or assistance in escaping from the permit space; and, for ten percent (457,672) of these entries, one minute (.02 hours) to warn any individual who is not an authorized entrant and approaches a permit space during entry operations to stay away from the permit space or to exit the permit space if that individual enters the permit space, as well as to inform the authorized entrant and entry supervisor of any such unauthorized entry.

Burden hours: 45,767 entries x .02 hours (evacuation alert) = 915 hours

Cost: 915 hours x \$44.11 = \$40,361

Burden hours: 458 entries x .03 hours (rescue operations) = 14 hours

Cost: 14 hours x \$44.11 = \$618

Burden hours: 457,672 entries x .02 hours (warn non-entrants) = 9,153

Cost: 9,153 hours x \$44.11 = \$403,739

<sup>19</sup>According to the RIA, there were an estimated 1,629,201 confined space entrants and 114,352 attendants covered by the Standard. The current ICR analysis estimates 1,471,634 confined space entrants (see Table B). This is a decrease of 9.7% from the RIA estimate. Therefore, the Agency estimates there are 125,444 attendants ( $114,352 - (114352 \times -9.7\%)$ ).

#### (J) Informing the Rescue Service About the Hazards of the Space (§ 1910.146 (k)(1)(iv))

The Agency has no reliable data on which to estimate the number of in-house permit space rescues that occur each year. For the purpose of estimating burden hours and costs only, the Agency estimates that 458 establishments (one thousandth of one percent of the 4,576,718 permit space establishments) would experience an in-house rescue per year. The Agency estimates that it would take two minutes (.03 hours) to inform the rescue service of the hazards they may confront when called on to perform rescue at the site. OSHA determines that the burden hours and cost of this provision each year to be:

Burden hours: 458 entry rescues x .03 hours to inform = 14 hours

Cost: 14 hours x \$44.11 = \$618

## (K) Disclosure of records (§ 1910.146 (c)(5)(ii)(H), (c)(7)(iii), (d)(5)(vi), (g)(4) and (l)(2))

OSHA has no data on the number of access requests made by workers and their designated representatives and, therefore, the Agency estimates that 1% of all affected employees (14,631) will request access to records under the Standard.

Burden hours:  $14,716 \times .08 \text{ hours} = 1,177$ 

Cost: 1,177 hours x \$44.11 = \$51,917

#### (L) Testing and Monitoring

The Agency estimates that atmospheric testing and monitoring for confined spaces will take an average of 5 minutes (.08 hours) for a supervisor to perform per entry. For purposes of this PRA analysis only, the Agency estimates 228,836 (5% of the estimated 4,576,718 permit spaces entered annually) require atmospheric testing or monitoring. The estimated annual burden hours and cost for a supervisor to perform these requirements are:

Burden hours: 228,836 entries  $\times$  .08 hours = 19,070 hours

Cost:  $19,070 \text{ hours} \times \$44.11 = \$841,178$ 

**Table 1 - Summary of Estimated Annualized Respondent Hour and Cost Burden** 

Information Collection Requirement(s)	Type of Respondent	No. of Respondents	No. of Responses per Respondent	Total No. of Responses	Avg. Burden per Response (In Hrs.)	Total Burden Hours (rounded)	Avg. Hourly Wage Rate*	T Bi (ro
(A) Preparation of a "DangerPermit Required Confined Space" Sign (§ 1910.146(c)(2))	Private Sector— businesses or other for- profits	9,153	1	9,153	0.08	732	\$26.79	\$19,0
(B)(1) Preparation of a written permit-space entry program (§§ 1910.146 (c)(4) and 1910.146(d))	Private Sector— businesses or other for- profits	10,514	1	10,514	16.00	168,224	\$44.11	\$7,42
(B)(2) Annual Review of Written Permit Space Program and Cancelled Permits (§29 CFR 1910.146(d)(14) and (e)(6))	Private Sector— businesses or other for- profits	99,884	1	99,884	2.00	199,768	\$44.11	\$8,81
(C) Documentation of determinations and supporting data required for entries using alternative procedures (§ 1910.146(c)(5)(i) (E))	Private Sector— businesses or other for- profits	2,302,819	1	2,302,819	0.25	575,705	\$26.79	\$15,4
(D) Written certification for alternate procedures (§ 1910.146(c)(5)(ii) (H))	Private Sector— businesses or other for- profits	2,302,819	1	2,302,819	0.05	115,141	\$26.79	\$3,08

Information Collection Requirement(s)	Type of Respondent	No. of Respondents	No. of Responses per Respondent	Total No. of Responses	Avg. Burden per Response (In Hrs.)	Total Burden Hours (rounded)	Avg. Hourly Wage Rate*	T Bi (ro
(E) Written certification that all hazards have been eliminated (reclassification of a permit space) (§ 1910.146(c)(7)(iii)	Private Sector— businesses or other for- profits	195,571	1	195,571	0.05	9,779	\$26.79	\$261
(F) Information Exchange - Host Employer and Contractor (§ 1910.146(c)(8)(i), (c)(8)(ii), (c)(8) (iii), (c)(8)(v) and (c)(9)(iii))	Private Sector— businesses or other for- profits	2,103	2	4,206	0.13	547	\$44.11	\$24,1
(G) Written entry permits (§ 1910.146(e))	Private Sector— businesses or other for- profits	1,857,924	1	1,857,924	0.25	464,481	\$26.79	\$12,4
(H) Certification of training (§ 1910.146(g)(4))	Private Sector— businesses or other for- profits	1,324,471	1	1,324,471	0.02	26,489	\$25.99	\$688
	Private Sector— businesses or other for- profits	147,163	1	147,163	0.05	7,358	\$25.99	\$191

Information Collection Requirement(s)	Type of Respondent	No. of Respondents	No. of Responses per Respondent	Total No. of Responses	Avg. Burden per Response (In Hrs.)	Total Burden Hours (rounded)	Avg. Hourly Wage Rate*	T Bi (ro
(I) Information Exchange – Authorized Entrants (§ 1910.146(h)(3) and h)(4)) and Attendants (§ 1910.146(i)(5), (i) (6), (i)(7), and (i) (8))								
(-//	Private Sector— businesses or other for- profits	250,888	1	250,888	0.25	62,722	\$26.79	\$1,68
	Private Sector— businesses or other for- profits	45,767	1	45,767	0.02	915	\$44.11	\$40,3
	Private Sector— businesses or other for- profits	458	1	458	0.03	14	\$44.11	\$618
	Private Sector— businesses or other for- profits	457,672	1	457,672	0.02	9,153	\$44.11	\$403
Subtotal (I)				754,785		72,804		\$2,1
(J) Informing the Rescue Service About the Hazards of the Space (§ 1910.146 (k)(1) (iv))	Private Sector— businesses or other for- profits	458	1	458	0.03	14	\$44.11	\$618

Information Collection Requirement(s)	Type of Respondent	No. of Respondents	No. of Responses per Respondent	Total No. of Responses	Avg. Burden per Response (In Hrs.)	Total Burden Hours (rounded)	Avg. Hourly Wage Rate*	T Bi (ro
(K) Disclosure of records (§§ 1910.146 (c)(5)(ii) (H), (c)(7)(iii) and (g)(4))	Private Sector— businesses or other for- profits	14,716	1	14,716	0.08	1,177	\$44.11	\$51,
(L) Testing and Monitoring	Private Sector— businesses or other for- profits	228,836	1	228,836	0.08			
TOTAL				9,253,319		1,660,526		\$51,3

<sup>\*\*</sup>See pages 11 and 12 for an explanation of the wage rate calculations and citaions.

- 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 respondent (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.

#### **Gas Monitor**

The 1992 Regulatory Impact Analysis estimated less than 1% of employers would be required to purchase atmospheric testing equipment (see Table V-7). Page V-33 of the RIA states, '[M]any establishments are already in compliance with this provision of the standard, and OSHA expects those who are not to rely upon contractors for entries, particularly if they make relatively few entries." For purposes of this paperwork analysis, OSHA estimates that approximately 2,103 establishments (1% of the estimated 210,281 establishments with permit spaces) will purchase a gas monitor estimated to be \$1,000, with a useful life of 5 years, to conduct atmospheric testing and monitoring and record the results on the permit. A 10% operation and maintenance costs is also assumed.

 $(2,103 \text{ establishments/5 years}) \times (\$1,000 \text{ (monitor)} = \$420,600 \text{ per year}$ 

2,103 establishments x ( $\$1,000 \times .10$ ) operation and maintenance costs = \$210,300

**Total Costs:** \$420,600 + \$210,300 = **\$630,900** 

14. Provide estimates of the 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 into a single table.

There are no costs to the Federal Government associated with this Information Collection Request. The requirements of the PRA do not apply to disclosure of records during an investigation of specific individuals or entities (see 5 CFR 1320.4(a)(2)). OSHA would only review records in the context of an open investigation of a particular employer to determine compliance with the Standard.

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

OSHA is requesting an adjustment increase for the information collection requirements of 86,713 burden hours (from 1,573,813 to 1,660,526). The burden hour increase is related to updated data estimates showing an increase in the number of permit space entrants (from 1,463,075 to 1,471,634) and establishments with permit spaces (from 205,548 to 210,281) affected by the Standard. In response to a comment and after careful review of the economic analysis for this standard, the Agency is adding burden hour costs for atmospheric testing and monitoring; the burden hour increase is also related to this cost. For the same reasons, the Agency is including capital and operation and maintenance costs of \$630,900 for atmospheric testing and monitoring equipment.

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 the Standard.

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

OSHA lists current valid control numbers in §§1910.8, 1915.8, 1917.4, 1918.4, and 1926.5 and publishes the expiration date in the Federal Register notice announcing OMB approval of the information-collection requirement. (See 5 CFR 1320.3(f)(3).) OSHA believes that this is the most appropriate and accurate mechanism to inform interested parties of these expiration dates.

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

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

#### B. COLLECTION OF INFORMATION EMPLOYING STATISITICAL METHODS.

This Supporting Statement does not contain any collection of information requirements that employ statistical methods.

Table A Proposed Burden Hours

Information Collection Requirement	Responses	Current Burden Hours	Proposed Burden Hours	Adjustment (Hours)	Cost Under Item 12
(A) Preparation of a "DangerPermit Required Confined Space" Sign (§ 1910.146(c)(2))	9,153	717	732	15	\$19,610
(B)(1) Preparation of a written permit-space entry program (§§ 1910.146 (c)(4) and 1910.146(d))	10,514	164,432	168,224	3,792	\$7,420,361
(B)(2)Annual Review of Written Permit Space Program and Cancelled Permits (§29 CFR 1910.146(d)(14) and (e)(6))	99,884	195,272	199,768	4,496	\$8,811,766

Information Collection Requirement	Responses	Current Burden Hours	Proposed Burden Hours	Adjustment (Hours)	Cost Under Item 12
(C) Documentation of determinations and supporting data required for entries using alternative procedures (§ 1910.146(c)(5)(i)(E))	2,302,819	551,838	575,705	23,867	\$15,423,137
(D) Written certification for alternate procedures (§ 1910.146(c)(5)(ii)(H))	2,302,819	110,368	115,141	4,773	\$3,084,627
(E) Written certification that all hazards have been eliminated (reclassification of a permit space) (§ 1910.146(c)(7)(iii))	195,571	9,373	9,779	406	\$261,979
(F) Information Exchange - Host Employer and Contractor (§ 1910.146(c)(8)(i), (c)(8)(ii), (c)(8)(iii), (c)(8)(v) and (c)(9)(iii))	4,206	534	547	13	\$24,128
(G) Written entry permits (§ 1910.146(e))	1,857,924	445,225	464,481	19,256	\$12,443,446
(H) Certification of training (§ 1910.146(g)(4))	1,324,471	26,335	26,489	154	\$688,449

Information Collection Requirement	Responses	Current Burden Hours	Proposed Burden Hours	Adjustment (Hours)	Cost Under Item 12
	147,163	7,315	7,358	43	\$191,234
(I) Information Exchange – Authorized Entrants (§ 1910.146(h)(3) and h)(4)) and Attendants (§ 1910.146(i)(5), (i)(6), (i)(7), and (i)(8))	754,785	61,221	72,804	11,583	\$2,125,040
(J) Informing the Rescue Service About the Hazards of the Space (§ 1910.146 (k)(1)(iv))	458	13	14	1	\$618
(K) Disclosure of records (§§ 1910.146 (c)(5)(ii)(H), (c)(7)(iii) and (g)(4))	14,716	1,170	1,177	7	\$51,917
(L) Testing and Monitoring	228,836	0	18,307	18,307	\$807,522
TOTAL	9,253,319	1,573,813	1,660,526	86,713	\$51,353,834

 $\textbf{Table B: Profile of Affected Establishments and Employees}^i$ 

Industry	SIC (1992)	NAICS (2002) (i)	Total # of Establishments (ii)	# of Establishments with Permit Spaces(iii)	# of Permit Spaces(iv)	# of Permit Space Entrants(v)
Agricultural Services	7	115	10,926	6,096	44,501	26,244
Oil & Gas Extraction	13	211	7,906	3,897	4,677	4,287
Food and Kindred Products	20	311	26,819	13,194	183,399	127,984
Tobacco Products	21	3122	160	98	1,097	2,849
Textile Mill Products	22	314 313	6,195 2,210	2,126	24,234	39,751
Wood Products (except furniture)	24	321	14,071	4,039	15,347	42,215
Furniture and Fixtures	25	337	15,098	6,809	34,046	45,622
Paper Products	26	322	4,217	2,889	62,690	30,334
Printing and Publishing	27	323	25,688	18	78	35
Chemicals & Allied Products	28	325	13,182	8,899	187,754	79,198
Petroleum Refining	29	324	2,133	1,650	94,077	15,680
Rubber Products	30	326	12,276	4,874	111,614	111,127
Leather and Leather Products	31	316	1,180	88	299	617
Stone, Clay, Glass &	32	327	14,731	11,136	151,445	100,228

Industry	SIC (1992)	NAICS (2002) (i)	Total # of Establishments (ii)	# of Establishments with Permit Spaces(iii)	# of Permit Spaces(iv)	# of Permit Space Entrants(v)
Concrete						
Primary Metals Industry	33	331	4,533	1,945	24,696	39,476
Fabricated Metal Products	34	332	54,767	12,706	133,415	50,825
Machinery, Except Electrical	35	333	23,794	1,903	15,228	51,393
Electric/Electronic Equipment	36	334 (50%)	6,339	4,697	125,870	78,904
		335	5,671			
Transportation Equipment	37	336	11,880	3,480	1,144,630	33,407
Instruments & Related Products	386	325992	268	34	472	268
		333315	207			
Miscellaneous	391	33991	2,126	644	22,715	4,183
Manufacturing	394	33992	1,708			
	334	33993	572			
Motor Freight Transportation	42	484	121,653	15,936	219,919	44,621
Electric, Gas, Sanitary	49	22	17,990	25,528	1,414,231	237,411

Industry	SIC (1992)	NAICS (2002) (i)	Total # of Establishments (ii)	# of Establishments with Permit Spaces(iii)	# of Permit Spaces(iv)	# of Permit Space Entrants(v)
Services						
Wholesale Trade – Durable	50	423	237,494	1,900	2,737	2,280
	515	4245	6,303	22,265	247,141	118,002
Wholesale Trade –	516	4246	12,500			
Nondurable	517	4247	6,658			
	5,198	424950	1,892			
Food Stores	54	445	152,504	8,540	8,540	8,540
	5,983	454311 (76%)	6,673	4,471	17,435	6,706
Miscellaneous Retail	5,984	454312 (82%)				
Real Estate (Commercial)	65	531	321,871	18,991	62,651	17,282
Hotels/Other Lodging	701	7211	56,557	6,901	104,890	108,341
D 10 :	<b>5</b> 04	8123	34,650	2,712	18,764	5,424
Personal Service	721	561740	7,728			
Miscellaneous Repair	7.0	8112	12,083	601	643	601
Services	76	8113	21,721			
		8114	20,843			

Industry	SIC (1992)	NAICS (2002) (i)	Total # of Establishments (ii)	# of Establishments with Permit Spaces(iii)	# of Permit Spaces(iv)	# of Permit Space Entrants(v)
Motion Pictures	7,812	512110	14,371	14	42	84
Health Services	806	622	7,012	10,919	94,887	36,033
	807	6215	17,265			
		339116	6,224			
Museums, Botanical Gardens, Zoos	84	712	7,594	280	2,552	1,683
Totals			1,360,243	210,281	4,586,702	1,471,634

<sup>ii</sup> Source: U.S. Department of Labor, Occupational Safety and Health Administration, Office of Regulatory Analysis. *Final Regulatory Impact Analysis and Regulatory Flexibility Analysis of the Final Permit-Required Space Standard (§1910.146, Subpart J)*. Table I-1: Profile of Affected Establishments and Employees. December 1992. Supplemented where possible by information derived from: CONSAD Research Corporation. *Development of Industry Profile Data for OSHA's Draft Proposed Standard for Permit Entry Confined Spaces*. May 20, 1988.

<sup>ii</sup> Source: 2015 County Business Patterns Survey. This value represents the total number of establishments in the indicated NAICS code.

<sup>iii</sup>Values in this column were calculated using the ratio of the number of establishments with permit spaces (in Table I-1) to total firms in the specified SIC according to the 1992 Economic Census. This ratio was then applied to the total number of establishments listed in the preceding column.

<sup>iv</sup>Values in this column were calculated using the ratio of permit spaces to establishments with permit spaces as described in Table I-1. This ratio was then applied to the updated number of establishments with permit spaces listed in the preceding column.

<sup>v</sup>Values in this column were calculated using the ratio of permit space entrants to establishments with permit spaces as described in Table I-1. This ratio was then applied to the updated number of establishments with permit spaces.