SUPPORTING STATEMENT FOR
THE INFORMATION COLLECTION REQUIREMENTS FOR
THE STANDARD ON PROCESS SAFETY MANAGEMENT
OF HIGHLY HAZARDOUS CHEMICALS
(29 CFR 1910.119)[1]
OFFICE OF MANAGEMENT AND BUDGET (OMB)
CONTROL NO. 1218-0200 (February 2013)

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).

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 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).

The Clean Air Act Amendments ("CAAA") of 1990 required the Occupational Safety and Health Administration ("OSHA" or "the Agency") to develop a standard on Process Safety Management of Highly Hazardous Chemicals ("the PSM Standard" or "the Standard") containing certain minimum requirements to prevent accidental releases of chemicals that could pose a threat to workers. Under the authority granted by the Act, OSHA published the PSM Standard at 29 CFR 1910.119. The Standard, rather than setting specific engineering requirements, emphasizes the application of documented management controls; using the controls, companies address the risk associated with handling or working near highly hazardous chemicals. The Standard contains a number of paperwork requirements such as developing written process safety information, procedures and management practices; updating operating procedures and safe work practices; evaluating safety history and policies of contractors; conducting periodic evaluations; and documenting worker training. Items 2 and 12 below describe in detail the specific information collection requirements of the Standard.

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1 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.

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 collections of information in the PSM Standard are necessary for implementing the requirements of the Standard. The information is used by employers to assure that processes using highly hazardous chemicals with the potential for a catastrophic release are operated as safely as possible. The employer must thoroughly consider all facets of a process, as well as the involvement of workers in that process. Employers analyze processes so that they can identify, evaluate, and control problems that could lead to a major release, fire, or explosion. The Standard specifies several paperwork requirements. The purpose of these requirements is to ensure that employers collect the information necessary to control and reduce injuries and fatalities in workplaces that have the potential for highly hazardous chemical catastrophes. The following sections describe in detail the collection of information requirements in the Standard.

(A) Employee Participation (paragraph (c)). Employers are required by paragraph (c)(1) to develop a written plan of action regarding the implementation of the employee participation required by this paragraph. Paragraph (c)(2) requires employers to consult with workers and their representatives on the conduct and development of process hazard analyses and on the development of the other elements of process safety management in the Standard. Under paragraph (c)(3) employers must provide access to process hazard analyses and other information to workers and their representatives.[2]

(B) Process Safety Information (paragraph (d)). Paragraph (d) requires employers to complete a compilation of written process safety information prior to conducting a process hazard analysis. The compilation of written process safety information, which includes information on the hazards of chemicals, the technology of the process, and the equipment, is to enable the employer and workers involved in operating the process to identify and understand the hazards posed by processes involving highly hazardous chemicals.

(C) Process Hazard Analysis (paragraph (e)(1)). Paragraph (e)(1) requires the employer to perform an initial process hazard analysis on processes covered by the Standard. The evaluation must be appropriate to the complexity of the process and must identify, evaluate, and control the hazards involved in the process.

(D) Resolution of Hazards (paragraph (e)(5)). Paragraph (e)(5) requires documentation of the actions the employer takes to resolve the findings and recommendations of the team that performed the process hazard analysis, including a schedule for completing these actions. In addition, the employer is to communicate this information to affected operating, maintenance, and other workers whose work assignments are in the process.

2In the 1999 ICR, OSHA indicated that the on-going burden of worker participation required by paragraph (c) is included in other elements of the Standard and, therefore, no burden hours were assigned to this paragraph. Comments to the ICR concurred with the Agency's assessment regarding this burden.

(E) Updating, Revalidating, and Retaining the Process Hazard Analysis (paragraphs (e)(6) and (e)(7)). Paragraph (e)(6) requires that the initial process hazard analysis be updated and revalidated by a team at least every 5 years. Paragraph (e)(7) requires the employer to retain process hazard analyses for the life of each process covered by this section, as well as the documented resolution of recommendations described in paragraph (e)(5).

(F) Operating Procedures (paragraphs (f)(1) - (f)(4)). Paragraph (f)(1) requires the employer to develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information. Paragraph (f)(2) requires the employer to make the operating procedures readily accessible to workers who work in or maintain a process. Paragraph (f)(3) requires the employer to review the operating procedures as often as necessary to assure that they reflect current operating practice, and that the employer certify annually that these operating procedures are current and accurate. Paragraph (f)(4) requires the employer to develop and implement safe work practices that provide for the control of hazards during operations such as lockout/tagout; confined-space entry; opening process equipment or piping; and control over entrance into a facility by maintenance, contractor, laboratory, or other support personnel. These safe practices apply to both the employer's workers and contractor workers.

(G) Training (Initial, Refresher, and Documentation) (paragraphs (g)(1) - (g)(3)). Paragraph (g)(1) requires employers to train workers presently involved in operating a process before they become involved in operating a newly assigned process. The training shall emphasize specific safety and health hazards; emergency operations, including shutdown; and safe work practices applicable to the worker's job tasks. Paragraph (g)(2) requires that the employer provide refresher training at least every 3 years, and more often if necessary. Paragraph (g)(3) requires the employer to prepare a record that contains the name of worker, the date of training, and the means used to verify that the worker understood the training.[3]

(H) Contractors (paragraphs (h)(2)(i) - (h)(2)(iv), (h)(2)(vi), (h)(3)(iii), and (h)(3)(v)). This paragraph imposes collection of information requirements on both employers and on contractors. Paragraph (h)(2)(i) requires employers, when selecting a contractor, to obtain and evaluate information regarding the contract employer's safety performance and programs. Paragraph (h)(2)(ii) requires that the employer inform contract employers of known potential fire, explosion, or toxic release hazards related to the contractor's work and the process. Paragraph (h)(2)(iii) requires that the employer explain to contract employers the applicable provisions of the emergency action plan required by paragraph (n) of the Standard. Paragraph (h)(2)(iv) requires the employer to develop and implement safe work practices consistent with paragraph (f)(4) to control the entrance, presence and exit of contract employers and contract workers in covered process areas.[4] Paragraph (h)(2)(vi) requires the employer to maintain a

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3 The training requirements in paragraphs (g)(2) and (g)(3), as well as the training requirements in paragraphs (h)(3)(i) and (h)(3)(ii), (j)(3), and (l)(3) are not considered collection of information requirements and therefore are not included in burden-hour and cost described in Item 12.

4 The burden-hour and cost estimates associated with paragraph (h)(2)(iv) are included in the estimates for

contract worker injury and illness log related to the contractor's work in process areas. Paragraph (h)(3)(iii) requires the contract employer to document: that contract workers have been trained to perform their work practices safely and are knowledgeable about the fire, explosion, and toxic hazards in the workplace; and the identity of the contract worker who received the training, the date of training, and the means used to verify that the worker understood the training.[5] Paragraph (h)(3)(v) requires the contractor to advise the employer of any unique hazard presented by the contract employer's work, or any hazards found by the contract employer's work.

(I) Written Procedures, Inspections, and Testing (paragraphs (j)(2) and (j)(4)(iv)). Paragraph (j)(2) requires the employer to establish written procedures to maintain the on-going integrity of process equipment. Paragraph (j)(4)(iv) requires that employers document inspections and tests performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

(J) Hot Work Permit (paragraph (k)(2)). Paragraph (k)(2) requires the employer to provide the following information on permits issued for hot work operations conducted on or near a covered process: the date(s) authorized for hot work, the identity of the object on which hot work is to be performed, and documentation that the appropriate fire protection and prevention plans have been implemented. The permit must be kept on file until completion of the hot work operations.

(K) Management of Change (paragraphs (l)(1),(l)(4), and (l)(5)). Paragraph (l)(1) requires the employer to establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and for changes to facilities that affect a covered process. Paragraph (l)(4) requires the employer to update the procedures and practices set forth in paragraph (d) of the Standard if a change in paragraph (l) results in a change to the process safety information. Similarly, paragraph (l)(5) requires the employer to update the relevant information in paragraph (f) of the Standard if a change in paragraph (l) results in a change to the operating procedures and practices.[6]

(L) Incident Investigation (paragraphs (m)(4)–(m)(7)). Paragraph (m)(4) requires that a report be prepared at the conclusion of any incident investigation, and that the report include, at a minimum, the date of the incident; the date the investigation began; a description of the incident; the factors that contributed to the incident; and any recommendations resulting from

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paragraph (f) in Item 12.

5 In Item 12, OSHA is accounting for the training documentation requirements for contract employers specified by paragraph (h)(3)(iii) under the training documentation provision of paragraph (g)(3).

6 The burden hour and cost estimates for the information and training requirements specified by paragraph (l)(3) are included in the estimates for paragraph (g)(2) in Item 12.

the investigation. Paragraph (m)(5) specifies that the employer must document resolutions and corrective measures taken with regard to the findings and recommendations provided in an incident investigation report, while paragraph (m)(6) states that the employer must allow affected personnel (including contract workers), whose job tasks are relevant to the incident findings, to review the report. Paragraph (m)(7) requires that incident investigation reports be retained for 5 years.

(M) Emergency Planning and Response (paragraph (n)). Paragraph (n) requires the employer to establish and implement an emergency action plan in accordance with the provisions of 29 CFR 1910.38(a). In addition, the emergency action plan shall include procedures for handling small releases.

(N) Compliance Audits (paragraphs (o)(1) and (o)(3) – (o)(5)). Under paragraph (o)(1), employers are required to certify that they have evaluated compliance with the provisions of this section at least every 3 years to ensure that the procedures and practices developed under the Standard are adequate and are being followed. Paragraph (o)(3) requires that a report of the audit findings be developed, while paragraph (o)(4) states that the employer must promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that the deficiencies have been corrected. Paragraph (o)(5) requires that the last 2 reports be retained.

(O) Records Disclosure. Employers must disclose records required by the Standard to an OSHA compliance officer during an OSHA inspection.

(P) Trade Secrets. (paragraphs (p)(1) – (p)(3)). Under paragraph (p)(1), employers are required to make all information necessary to comply with the Standard available to those persons responsible for compiling the process safety information (required by paragraph (d) of the Standard), those assisting in the development of the process hazard analysis (required by paragraph (e) of the Standard), those responsible for developing the operating procedures (required by paragraph (f) of the Standard), and those involved in incident investigations (required by paragraph (m) of the Standard), emergency planning and response (paragraph (n) of the Standard) and compliance audits (paragraph (o) of the Standard) without regard to possible trade secret status of such information. The burden hours and costs for providing workers with access to these categories of information are included in the estimates for paragraphs (d), (e)(5), (f)(2), (m)(6), (n) and (o).

Paragraph (p)(2) indicates that employers may require the persons to whom the information is made available under paragraph (p)(1) of this section to enter into confidentiality agreements not to disclose the information as set forth in 29 CFR 1910.1200, the Hazard Communication Standard (HCS). Last, paragraph (p)(3) requires, subject to the rules and procedures set forth in 29 CFR 1910.1200(i)(1) through 1910.1200(i)(12), employees and their designated representatives to have access to trade secret information contained within the process hazard analysis and other documents required to be developed by this standard. The burden hours and

costs for employers' responses to requests from workers and their representatives for trade secret information are included in the HCS ICR, OMB No. 1218-0072.

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).

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 Item 2 above.

Section 304 of the Clean Air Act Amendments (CAAA) required that the Secretary of Labor and the Administrator of the Environmental Protection Agency (EPA) promulgate a chemical process safety standard to prevent accidental releases of chemicals that could pose a threat to workers, including development of a list of highly hazardous chemicals that include toxic, flammable, highly reactive and explosive substances. The CAAA also specified the minimum elements to be covered by the Standard. The Standard does not duplicate another standard.

Some information developed under OSHA's Hazard Communication Standard duplicates the requirements in the PSM Standard. However, OSHA will accept the information collected under the Hazard Communication Standard, or similar information developed in response to the requirements of other agencies, provided it fulfills the requirements of the PSM Standard.

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

Small firms account for approximately 10 percent of the total costs of the PSM Standard. OSHA specifically addressed small business concerns in the Standard. For example, a small business might control its on-site inventory of highly hazardous chemicals by ordering more frequent, smaller shipments so that they do not exceed the threshold for coverage specified in the Standard. Also, they may segregate their inventory by dispersing storage around the worksite so that release of a highly hazardous chemical from one storage area would not cause the release of other hazardous chemicals stored on site. Moreover, small employers who use several batch processes may be able to use a generic approach to process hazard analysis to further reduce the estimated cost of compliance. For example, a generic process hazard analysis may be used if a representative chemical process can be documented for the range of batch processes involved.

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 the burden.

The Agency believes that the information collection frequencies required by the Standard are the minimum frequencies necessary to effectively regulate process safety management of highly hazardous chemicals and, thereby, to fulfill its mandate "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources" as specified by the Act at 29 U.S.C. 651. The Standard also directly carries out the explicit requirements of the CAAA.

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 demonstrate that it has instituted procedures to protect the information's confidentially to the extent permitted by law.**

Paragraph (e)(6) requires that the initial process hazard analysis be updated and revalidated by a team at least every 5 years. The Agency believes that this five year update and revalidation interval is a reasonable timeframe, particularly in consideration of the long life span, without change, of many processes. Paragraph (e)(7) requires the employer to retain process hazard analyses for the life of each process covered by this section, as well as the documented resolution of recommendations described in paragraph (e)(5). The Agency does not believe that this requirement poses an undue burden on employers in that retention of these documents is necessary to conduct the periodic updates and revalidations which are required under the Standard.

Paragraph (m)(7) requires that incident investigation reports be retained for 5 years. The Agency believes it is extremely useful if the incident report findings and recommendations are reviewed during the subsequent update or revalidation of the process hazard analysis. Consequently, the Agency believes a five year retention period is appropriate, to be consistent with paragraph (e) of

Standard, which requires the process hazard analysis to be updated or revalidated every five years.

Under paragraph (o)(1), employers are required to certify that they have evaluated compliance with the provisions of this section at least every 3 years to ensure that the procedures and practices developed under the Standard are adequate and are being followed. Paragraph (o)(5) requires that the last 2 reports be retained. OSHA believes that an audit with respect to compliance with the provisions contained in this section is an extremely important function. This is because it serves as a self-evaluation for employers to measure the effectiveness of their process safety management system. The audit can identify problem areas, and assist employers in directing attention to process safety management weaknesses. The Agency believes that it is necessary that audits be performed at least every three years in order to measure the effectiveness of the process safety management system. Paragraph (o)(5) requires employers to retain the two most recent compliance audit reports, as well as the documented actions described in paragraph (o)(4). The purpose of this proposed provision is to focus on any continuing areas of concern that are identified through the compliance audits.

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 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 notice in the *Federal Register* on November 6, 2012 (77 FR 66638, Docket No. OSHA-2012-0039) requesting public comment on its proposal to extend the Office of Management and Budget's approval of the information collection requirements contained in the PSM Standard (29 CFR 1910.119). The notice was part of a preclearance consultation program that provided interested parties with an opportunity to comment on OSHA's request for an extension by OMB of a previous approval of the information collection requirements found in the PSM Standard. The Agency did not receive any comments regarding the proposed information collection request.

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.

Paragraph (p)(1) of the Standard states that employers must provide the specified information to individuals involved in meeting the paperwork requirements of the Standard. To protect the confidentiality of this information, OSHA incorporated the disclosure procedures in the Hazard Communications Standard at 29 CFR 1910.1200(i)(1) through (i)(12), into paragraph (p)(2) of the Standard.

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

OSHA is relying on information in EPA's Risk Management Program (RMP) database to estimate the number of establishments, employees and processes that must comply with the paperwork requirements for the Standard. In this section, the agency has adjusted the numbers from the 2009 ICR using the ratio of the change in number of establishments from 2009 to 2012 as reported in the RMP database. [7] For purposes of determining the paperwork burden of the

7 There were approximately 12,413 establishments in the RMP database as of October 12, 2012. This represents a decrease from the October 1, 2009 RMP data (as reported in the previous ICR) of -7.53%, or 1,011 facilities (from 13,424 to 12,413) . (In the 2012 preclearance ICR, OSHA adjusted the 2009 ICR numbers using the ratio of the change in number of establishments from 2009 to 2010 as reported by the U.S. Census Bureau's County Business Patterns (CBP). However, after publication of the preclearance ICR, OSHA received updated data from

PSM Standard, the Agency estimates that there are about 6,993 establishments with a PSM-covered process and a total of about 11,617 covered processes. In addition, the Agency estimates that there are over 461 new PSM-covered processes each year.

All establishments in certain industries (chemical manufacturers, for example) are required by the RMP standard to report information about their chemical inventories and risk management plans to EPA. In addition, any establishment with chemical inventories that meet or exceed EPA's RMP threshold quantities (for chemicals and flammables) must also supply information. The required information is extensive and includes: whether a process is covered by OSHA's PSM Standard; the establishment's industry classification (NAICS); number of full-time workers; and the chemical(s) or flammable(s) on site that are covered by EPA's standard. The RMP final standard had a list of 77 chemicals and explosives, and more than 60 flammable substances that were covered, although regulation of flammables and explosives was later revised.

Most RPM chemicals are also on OSHA's list of chemicals covered by the PSM Standard. A few chemicals (chlorine, ammonia, flammable liquids, sulfur dioxide) account for as much as 80 percent of the sites reporting to RMP (see "Accident Epidemiology and the RMP Rule," Wharton, December 18, 2007, Table 2.2B, page 69; http://opim.wharton.upenn.edu/risk/library/2007_EPA-Wharton_RMPRule.pdf), which is also consistent with OSHA's analysis of its PSM Standard. Hence, for purposes of counting paperwork burden, the Agency concludes that the two agencies' lists of chemicals can essentially be considered to be the same, and that RMP data captures information providing a reasonable estimate of establishments covered by the PSM Standard, with adjustments explained below.

As of October 12, 2012, the RMP database contained reports from 12,413 sites; of these, OSHA estimates that 6,643 establishments with 9,681 processes are covered under OSHA's PSM Standard. In the previous ICR, a separate count of "Level 3 Programs" proved to be about equal to the number of PSM-covered establishments. The Agency estimates that there are 2,132 PSM-covered establishments which had between one and 19 workers, which was the criterion used by both EPA and OSHA to identify "small" plants or employers affected by their respective standards.

Three states--California, Delaware, and New Jersey--have their own PSM regulations which employers must follow. These regulations pre-date OSHA's, and employers in these states were not included in the Regulatory Impact Analysis accompanying OSHA's final PSM Standard. The Agency estimates that there are 816 sites in the three states in the RMP database. Subtracting these from the 6,643 PSM-covered sites in the RMP database leaves 5,872 PSM-covered sites with 8,865 processes (assuming one process per site in the three states).

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the EPA's 2012 RMP database which the Agency believes is a better indicator of the specific activities conducted under the Standard. Thus, the Agency adjusted the final ICR using 2012 RMP data.)

Since OSHA's threshold quantities specified by the PSM Standard are typically five to ten times less than those in EPA's standard, there may be a significant number of establishments that are covered under the PSM Standard, but not by EPA's RMP standard. These sites would not have to report information to EPA under the RMP standard and would, therefore, not be included in the number of PSM-covered sites and processes. The Agency concludes that the RMP database contains most PSM-covered sites and processes because most of the large employers in RMP, measured by the number of workers, have PSM-covered processes. Based on the RMP database, OSHA estimates that there are 795 sites with more than 500 workers. Of these, an estimated 769 report that they have a PSM-covered process. Of the 1,546 employers reporting to RMP with more than 250 workers, 1,478 have a PSM-covered process.

The Agency also estimates the number of employers who are covered by the PSM Standard but not RMP using inspection data from its Integrated Management Information System (IMIS) for all employers who received a violation under the Standard between October 1, 2011 and October 12, 2012.[8] There were 233 such records. Based on the previous ICR, of the 233 records in the OSHA IMIS files, 193, or about 83 percent, of the employers or sites were found in the RMP database. Based on that data, for this ICR, the Agency estimates that there are 6,993 PSM-covered establishments (5,827 establishments from the RMP analysis described above multiplied by 1.20[9]) with 11,617 processes[10] (9,681 processes from the RMP analysis described above multiplied by 1.20). The Agency estimates that there are 36 employers with violations of the PSM Standard who were not in RMP, and most are small establishments (based on the previous ICR, about 15 percent had fewer than 20 workers, compared to about 3.5 percent of those employers who were also found in RMP).

Over the three-year period from 2009 to 2012, the Agency estimates that about 681 new establishments registered or reported information in EPA's RMP database, or about 277 per year. The Agency is relying on these data to estimate the annual number of new PSM-covered establishments and processes.

Background

OSHA proposed its PSM Standard in 1990. The Preliminary Regulatory Impact Analysis (PRIA) estimated that there were 27,725 affected establishments, and that most of these establishments would have two to four processes each (Table IV-5, page IV-14, PRIA). The analysis did not include establishments and processes in California, New Jersey, and Delaware which already had their own state regulations. Following public comment and hearings, OSHA issued its final PSM Standard in 1992. The Regulatory Impact Analysis (RIA) in the final Standard estimated that there were 29,939 affected establishments. Large establishments (20 or

8 Source: OSHA OIS and IMIS inspection data, Fiscal Year 2012 (run date October 12, 2012).

9 This correction factor is the number of OSHA-covered establishments (232) divided by the number of RMP-covered establishments (193).

10 The 2009 ICR showed 11,504 processes instead of 12,563 processes, which was an administrative error. For this ICR, the Agency based its estimates on the corrected 2009 number, 12,563 processes.

more workers) were estimated to have between four and 23 covered processes, depending on the industry, or an average of about 10 covered processes each, while small establishments were estimated to have an average of about two covered processes each (range: 1 to 5) (Table B-4, Appendix B, RIA).

The PSM Standard had a list of chemicals, each with a threshold quantity (TQ) that triggers an establishment's involvement in the Standard. In addition, if an establishment has as much as 10,000 pounds of flammable liquids or gases, it must also comply with the Standard's provisions, unless the flammable material is hydrocarbons used for workplace consumption (heat or transportation, for example), or the flammable is stored in atmospheric tanks below its boiling point. Retail facilities, normally unmanned, remote sites, and oil and gas well drilling and servicing operations were also exempt from the Standard.

EPA published its related Risk Management Plan final standard in 1996. EPA had a list of 77 toxic chemicals, 63 flammable substances, and Dept. of Transportation 1.1 explosives in the scope of its rule. Because EPA's concern was to protect the environment and public health beyond the site's fence line, its threshold quantities are considerably greater than OSHA's.

The Economic Analysis for the RMP rule estimated that there were about 66,000 affected establishments with about 92,000 processes. Of these, about 25,500 establishments with 43,800 processes qualified as Level 3 programs which would also fall under the PSM Standard. In 1998, EPA revised the scope of the RMP standard to exempt explosives and flammables used as fuels or sold at retail facilities. Since EPA had originally estimated that the RMP rule affected 12,500 propane retailers and 17,000 consumers of propane, these establishments were not required to report an RMP to EPA.

In 1998, EPA revised the scope of its RMP standard in regard to flammables (explosives were also delisted). EPA exempted from threshold determination regulated flammable substances in gasoline and naturally occurring hydrocarbon mixtures prior to initial processing. EPA also exempted flammable mixtures that do not have a National Fire Protection Association flammability hazard rating of 4, and also exempted transportation and storage operations (Federal Register Vol. 63, No. 3, Jan. 6, 1998). OSHA has a broader definition of flammables in the scope of the PSM Standard, including Class 1B and 1C flammables (see 29 CFR 1910.106(a)(19)), but that Standard also exempts the use of hydrocarbons consumed as fuel, and transfer and storage of flammables at atmospheric pressure below a flammable's boiling temperature.

Under RMP, affected establishments had five years within which to report, or register, information on their sites and processes to EPA. After the first reporting period, between 1999-2000, EPA had received reports from 15,145 sites. Of these, 7,108 establishments were for Level 3 programs, and 7,482 establishments were covered under the PSM Standard. As can be seen, the 15,145 figure is much lower than the original estimate made by EPA. EPA expected the number of establishments reporting might be considerably less than the original estimate: "In New Jersey, 52 percent of the manufacturers that initially registered under the state law changed substances or quantities before the full requirements were in effect. In Delaware, the attrition

rate was 30 percent" (RMP Economic Analysis, p. 3-14, May 21, 1996).

In the second wave of RMP reporting in 2004-05, 12,065 establishments reported to EPA. Of these, 6,055 had Level 3 programs and 6,278 were covered under the PSM Standard. (Source: Wharton report cited above, Table 2.1, page 67 and Table 6.1 page 206.)

The updated industry profile is as follows:

Estimated Number of Existing Establishments:	6,993
Estimated Number of Large Establishments:	4,748
Estimated Number of Small Establishments:	2,245
Estimated Number of New Establishments:	277
Estimated Number of Existing Processes:	11,617
Estimated Number of New Processes:	461
Estimated Number of Existing Employees in Level-3 Facilities	1,524,849

In estimating the cost of the paperwork requirements to respondents, the Agency used average hourly compensation rates to represent the cost of worker time. For the relevant occupational categories, mean hourly wages from "Employer Costs for Employee Compensation, June 2012" by the Bureau of Labor Statistics have been adjusted to account for private-sector fringe benefits of 29.6 % of total compensation. These hourly compensation rates are:

Engineers:	
- Level III:	$51.23
- Level IV:	$59.87
- Level V:	$73.36
- Level VI:	$87.86
Blue-collar supervisor:	$29.84
Production workers:	$23.38
Service workers:	$17.66
Clerical workers:	$21.75

(A) Employee Participation (paragraph (c)). In the 1999 ICR, OSHA indicated that the on-going burden of employee participation required by paragraph (c) is included in other elements of the Standard and, therefore, no burden hours were assigned to this paragraph. Comments to the ICR concurred with the Agency's assessment regarding this burden.

(B) Process Safety Information (paragraph (d)). Based on the compliance schedule specified in paragraphs (e)(1)(i)-(e)(1)(v) of the Standard, OSHA believes only new establishments need to compile the written process safety information required by this provision. Therefore, the Agency is determining burden-hour and cost estimates only for new establishments. For each of these establishments, this task requires 50 hours each from a level IV engineer and a blue-collar supervisor, as well as 54 hours each from 2 production workers, for a total of 208 hours per

establishment. The total cost per establishment is $7,011 (i.e., $2,994 for a level IV engineer ($59.87/hour x 50 hours), $1,492 for a blue-collar supervisor ($29.84/hour x 50 hours), and $2,525 for 2 production workers ($23.38/hour x 108 hours (54 hours each)). The Agency estimates the annual total burden hours and cost for these establishments to be:

Burden hours: 277 new establishments x 208 hours = 57,616 hours
Cost: 277 new establishments x $7,011 = $1,942,047

(C) Process Hazard Analysis (paragraph (e)(1)). Only new establishments need to perform an initial process hazard analysis for each covered process. Accordingly, for each of these establishments, this task requires 100 hours each from a level IV engineer and a blue-collar supervisor, as well as 18 hours each from 2 production workers, for a total of 236 hours per establishment. The total cost for each of these establishments is $9,813 (i.e., $5,987 for a level IV engineer ($59.87/hour x 100 hours), $2,984 for a blue-collar supervisor ($29.84/hour x 100 hours), and $842 for 2 production workers ($23.38/hour x 36 hours (18 hours each)). The estimated total burden hours and cost for these establishments each year are:

Burden hours: 277 new establishments x 236 hours = 65,372 hours
Cost: 277 new establishments x $9,813= $2,718,201

(D) Resolution of Hazards (paragraph (e)(5)). Documenting how and when the employer resolves the findings and recommendations of the team that conducted the process hazard analysis, and communicating this information to the appropriate workers, takes a level IV engineer 22 hours per establishment. As this provision addresses initial process hazard analyses, only new establishments are affected. The Agency determined the annual estimated burden hours and cost for this provision as follows:

Burden hours: 277 new establishments x 22 hours = 6,094 hours
Cost: 6,094 hours x $59.87 = $364,848

(E) Updating, Revalidating, and Retaining the Process Hazard Analysis (paragraphs (e)(6) and (e)(7)). Updating or revalidating the hazard analysis for each existing process every 5 years (i.e., 20% of 11,617, or 2,323, of processes per year), and retaining process-analysis information and the documents specified by paragraph (e)(5), requires 50 hours each from a level IV engineer and a level VI engineer, for a total of 100 hours per process. The total cost per process is $7,387 (i.e., $2,994 for a level IV engineer ($59.87/hour x 50 hours) and $4,393 for a level VI engineer ($87.86/hour x 50 hours)). For the covered process, the estimated burden hours and cost each year is:[11]

Burden hours: 2,323 existing processes x 100 hours = 232,300 hours

11Although these paragraphs do not explicitly require that employers retain these records, OSHA is taking burden for record retention because it believes the 5-year updating and revalidation requirement specified by paragraph (e)(6) implies that employers must retain these records.

Cost: 2,323 existing processes x $7,387 = $17,160,001

(F) Operating Procedures (paragraph (f)(1)-(f)(4)). It takes a level IV engineer 22 hours to develop written operating procedures and safe work practices to control the movement of the contractor and its workers in process areas for each of the 461 new processes and 11,617 existing processes (for a total of 12,078 processes). The yearly burden hours and cost for this provision are estimated to be:

Burden hours: 12,078 processes x 22 hours = 265,716 hours
Cost: 265,716 hours x $59.87 = $15,908,417

(G) Training (Initial, Refresher, and Documentation) (paragraphs (g)(1)-(g)(3)). The Agency estimates that the Standard covers approximately 1,524,849 existing workers. OSHA assumes that the worker turnover rate for the affected establishments is 10% (152,485) of the workers per year, and that the 152,485 replacement workers require initial training under paragraph (g)(1). In addition, paragraph (g)(2) requires that existing workers receive refresher training at least once every 3 years, for an annual total of 508,283 workers (i.e., one-third of 1,524,849 workers). Accordingly, a clerical worker takes 3 minutes (.05 hours) to generate and maintain the training record specified by paragraph (g)(3) for each of these workers. The estimated annual burden hours and cost for this provision are:[12]

Burden hours: (152,485 workers + 508,283 workers = 660,768) x .05 hours = 33,038 hours
Cost: 33,038 hours x $21.75 = $718,577

(H) Contractors (paragraphs (h)(2)(i)-(h)(2)(iv), (h)(2)(vi), (h)(3)(iii)), and (h)(3)(v). Paragraph (h) imposes collections of information on both employers and contractors. Obtaining and evaluating information regarding a contractor's safety performance and programs, informing a contractor of the specified hazards and the applicable provisions of the emergency action plan, developing and implementing safe work practices to control the entrance, presence and exit of contract employers and contract workers in covered process areas, maintaining a contract worker injury and illness log, documenting that contract workers have been trained to perform their work practices safely, and requiring the contractor to advise the employer of any unique hazard presented by the contract employer's work, or any hazards found by the contract employer's work requires 50 hours each from a level IV engineer, a blue-collar supervisor, and 2 production workers, for a total of 200 hours per establishment. In addition, the Agency finds that these paperwork requirements affect 50 percent of, or 3,497, existing establishments each year. The total cost per establishment is $6,824 (i.e., $2,994 for a level IV engineer ($59.87/hour x 50 hours), $1,492 for a blue-collar supervisor ($29.84/hour x 50 hours), and $2,338 for 2 production workers ($23.38/hour x 100 hours (50 hours each))). OSHA estimates the total burden hours and cost for these establishments each year to be:

12While these paragraphs contain no explicit record-retention requirement, the Agency is accounting for this burden because the 3-year cycle specified by paragraph (g)(2) implies such a requirement.

Burden hours: 3,497 establishments x 200 hours = 699,400 hours
Cost: 3,497 establishments x $6,824 = $23,863,528

(I) Written Procedures, Inspections, and Testing (paragraphs (j)(2) and (j)(4)(iv)). OSHA finds that 461 new processes and 11,617 existing processes (for a total of 12,078 processes) must establish and implement the required written procedures, and to document each inspection and test performed on process equipment (including the specified information). For each of these processes, this task requires 8 hours of a level III engineer's time, 8.5 hours of a blue-collar supervisor's time, and 130 hours of a service worker's time, for a total of 146.5 hours per establishment. The total cost for each of these processes is $2,960 (i.e., $410 for a level III engineer ($51.23/hour x 8 hours), $254 for a blue-collar supervisor ($29.84/hour x 8.5 hours), and $2,296 for a service worker ($17.66/hour x 130 hours)). The estimated total burden hours and cost for these processes each year are:

Burden hours: 12,078 processes x 146.5 hours = 1,769,427 hours
Cost: 12,078 processes x $2,960 = $35,750,880

(J) Hot Work Permits (paragraph (k)). The Agency estimates that small establishments issue 6 hot work permits per year for each covered process, while large establishments issue twice as many per year for each process due to the additional complexity of their operations. Each of the 2,245 small establishments averages 1 process, and thus issues a total of 6 permits annually, while each of the 4,748 large establishments averages 1.8 processes, and thus issues a total of 21.6 (12 x 1.8) hot permits annually. In addition, a blue-collar supervisor, earning $29.84 per hour, takes 6 minutes (0.1 hours) to complete this task. The annual burden-hour and cost estimates for these establishments are:

Burden hours: ((4,748 large establishments x 21.6 permits = 102,557) + (2,245 small establishments x 6 permits = 13,470)) = 116,027 x 0.1 hour = 11,603 hours
Cost: 11,603 hours x $29.84= $346,234

(K) Management of Change (paragraphs (l)(1), (l)(4), and (l)(5)). To estimate the burden hours and cost associated with developing written management-of-change procedures and updating process safety information and operating procedures, the Agency determined that, of the 6,993, total establishments affected by this requirement, 4,748 establishments are large and 2,245 establishments are small.

Based on the estimate that affected small establishments average one covered process each, the Agency determined the total estimated burden hours ranged from 9.9 hours to 29.7 hours for these establishments, depending on the complexity of the process. The Agency estimated on average each small establishment would require 6.0 hours for a level IV engineer, earning $59.87 per hour, and 12.3 hours for production workers earning $23.38 per hour. The total burden unit hours per establishment are, therefore, 18.3 hours. The 2,245 small establishments will incur a

total burden of 41,084 hours and a total cost of $1,452,053, determined as follows:

Burden hours: 2,245 establishments x 18.3 unit hours = 41,084 hours
Cost: 2,245 x ((6 hours x $59.87 for a level IV engineer) + (12.3 hours x $23.38 for production workers)) = $1,452,053

For the large establishments, the Agency estimated that the number of hours would be higher in proportion to the average number of covered processes per establishment (1.8 for large establishments, compared to 1.0 for small establishments). To account for the greater complexity of processes utilized by large establishments, the Agency also increased the estimated burden hours for large establishments by a factor of three. Based on these assumptions, the Agency estimated that large establishments would require on average 32.4 hours (6.0 x 1.8 x 3) for a level IV engineer, earning $59.87 per hour, and 66.4 hours (12.3 x 1.8 x 3) hours for production workers, earning $23.38 per hour. The total burden hours for each large establishment are, therefore, 98.8 hours, resulting in total burden hours for all establishments of 469,102 hours and a cost of $16,581,060, determined as follows:

Burden hours: 4,748 establishments x 98.8 hours = 469,102 hours
Cost: 4,748 establishments x ((32.4 hours x $59.87 for a level IV engineer) + (66.4 hours x $23.38 for production workers)) = $16,581,060

In summary, for small and large establishments combined, the total burden hours for the management-of-change information collection requirements is **510,186 hours,** with an estimated cost of **$18,033,113**.

(L) Incident Investigations (paragraphs (m)(4)-(m)(7)). To prepare an incident investigation report containing the specified information, document resolutions and corrective actions, provide the report for review by workers whose job tasks are relevant to the incident findings, and retain the reports for 5 years requires 16 hours from a level V engineer, 48 hours from a level IV engineer, 32 hours from a blue-collar supervisor, and 4 hours from a clerical worker, for a total of 100 hours to perform these tasks for each incident.[13] The Agency finds that each of the 6,993 existing establishments has 1 reportable incident each year,[14] for a total of 6,993 incidents annually. The total cost per establishment is $5,090 (i.e., $1,174 for a level V engineer ($73.36/hour x 16 hours), $2,874 for a level IV engineer ($59.87 x 48 hours), $955 for a blue-collar supervisor ($29.84/hour x 32 hours), and $87 for a clerical worker ($21.75/hour x 4 hours)). The Agency determines that the total burden-hour and cost estimates for these establishments each year are:

Burden hours: 6,993 establishments x 100 hours = 699,300 hours
Cost: 6,993 establishments x $5,090 = $35,594,370

13The 100-hour estimate is based on comments submitted in response to the 1996 ICR.

14From the original RIA.

(M) Emergency Planning and Response (paragraph (n)). It takes 1 hour of a level V engineer's time (at $73.36 per hour) to establish an emergency action plan that includes procedures for handling small releases. OSHA believes that this requirement affects only new establishments because existing establishments have already established action plans. The yearly burden hours and cost for these establishments are estimated to be:

Burden hours: 277 new establishments x 1 hour = 277 hours
Cost: 277 hours x $73.36= $20,321

(N) Compliance Audits (paragraphs (o)(1) and (o)(3)–(o)(5)). Certifying compliance with the standard once every 3 years after conducting a compliance audit, developing a report of the audit findings, determining and documenting an appropriate response to each of the audit findings, documenting that any deficiencies have been corrected, and retaining the last 2 audit reports, takes 32 hours from a level V engineer, 48 hours from a level IV engineer, 32 hours from a blue-collar supervisor, and 8 hours from a clerical worker, for a total of 120 hours to complete these paperwork tasks. The Agency estimates that 2,331 establishments are affected by these provisions each year (6,993, divided by 3). [15] The total cost per establishment is $6,351 (i.e., $2,348 for a level V engineer ($73.36/hour x 32 hours), $2,874 for a level IV engineer ($59.87 x 48 hours), $955 for a blue-collar supervisor ($29.84/hour x 32 hours), and $174 for a clerical worker ($21.75/hour x 8 hours). For each year, the estimated total burden hours and cost for these establishments are:

Burden hours: 2,331 establishments x 120 hours = 279,720 hours
Cost: 2,331 establishments x $6,351 = $14,804,181

(O) Records Disclosure. As noted in Item 14 below, the Agency believes that approximately 233 establishments[16] are subject to an OSHA inspection during which the employer may have to disclose the records required by the Standard to an OSHA compliance officer. It takes 15 minutes (.25 hours) of a level III engineer's time (at $51.23 per hour) to make this disclosure. The annual burden hours and cost for this task are estimated to be:

Burden hours: 233 establishments x .25 hour = 58 hours
Cost: 58 hours x $51.23 = $2,971

13. Provide an estimate for 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 service component. The estimates should take into account costs associated with generating, maintaining,**

15The Agency arrived at this number by applying the compliance rate used in the original RIA to the new estimated number of affected establishments.

16Source: OSHA OIS and IMIS inspection data, Fiscal Year 2012 (run date 10/12/12).

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.**

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

14. Provide estimates of 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 may also aggregate cost estimates from Items 12, 13, and 14 into a single table.

OSHA estimates that a compliance officer (GS-12, step 5), with an hourly wage rate of $37.37,[17] spends about 30 hours[18] during an inspection reviewing the documents required by the Standard. The Agency determined that its compliance officers will conduct approximately 233 inspections during each year covered by this ICR.[19] OSHA considers other expenses, such as equipment, overhead, and support staff salaries to be normal operating expenses that would occur without the paperwork requirements specified by the Standard. Therefore, the total annual cost of these paperwork requirements to the Federal government is:

Cost: 233 inspections x 30 hours x $37.37 = $261,216

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

The Agency reports an adjustment decrease of 165,398 hours from the previous submission (from 4,795,505 hours to 4,630,107 hours), due to the estimated reductions in establishments and

17 Source: U.S. Office of Personnel Management, *General Schedule and Locality Tables, Salary Table 2012-RUS*, http://www.opm.gov/oca/12tables/html/RUS_h.asp.

18 Upon further analysis, the Agency has determined that it takes a compliance officer approximately 30 hours to review documents required by the Standard during a PSM inspection.

19Source: OSHA OIS and IMIS inspection data, Fiscal Year 2012 (run date October 12, 2012).

processes. In determining the hours associated with this ICR, OSHA relied on information from the Environmental Protection Agency's (EPA) Risk Management Program (RMP) database to estimate the number of establishments and processes that must comply with paperwork requirements for the PSM Standard. Table 1 below provides the rationale for each burden hour change.

Although burden hours decreased from the previous ICR, the number of responses increased primarily because EPA data showed an increase in affected employees, which resulted in increased training record burden hours and responses. Other factors that contributed to the increase in responses are: 1) as noted in Footnote 10 of Item 12 and Table 1, an error in the previous ICR calculation caused an underestimation of current processes, thus, in comparison, responses, burden hours, and costs for current processes increased in this ICR; and 2) the Agency estimated a small increase in the number of new processes.

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.

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 inappropriate.

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

18. Explain each exception to the certification statement.

OSHA is not seeking an exception to the certification statement.

Table 1. Requested Burden Hour Adjustments

Information Collection Requirement	Current Burden Hours	Proposed Burden Hours	Adjustment (Hours)	Proposed Cost (Item 12)	Responses	Explanation of Adjustment
(A) Employee Participation (paragraph (c))	0	0	0	$0	0	OSHA believes that the on-going burden of employee participation required by paragraph (c) is included in other elements of the Standard and therefore, no burden hours were assigned to this paragraph.
(B) Process Safety Information (paragraph (d))	62,400	57,616	-4,784	$1,942,047	277	The estimated number of new establishments decreased (from 300 to 277).
(C) Process Hazard Analysis (paragraph (e)(1))	70,800	65,372	-5,428	$2,718,201	277	The estimated number of new establishments decreased (from 300 to 277).
(D) Resolution of Hazards (paragraph (e)(5))	6,600	6,094	-506	$364,848	277	The estimated number of new establishments decreased (from 300 to 277).
(E) Updating, Revalidating, and Retaining the Process Hazard Analysis (paragraphs (e)(6) and (e)(7))	230,100	232,300	2,200	$17,160,001	2,323	The number of current processes decreased from 12,563 to 11,617. However, as noted in Footnote 10 of Item 12, an error in the previous ICR calculation caused an underestimation of processes and burden hours (approximately 21, 160 burden hours); thus, in comparison, current burden hours and costs increased.
(F) Operating Procedures (paragraph (f)(1)-(f)(4))	263,120	265,716	2,596	$15,908,417	12,078	The number of new processes increased from 456 to 461. Also, the total burden hours increased due to an error in the previous ICR calculation caused by an underestimation of current processes. (See explanation above.)

Information Collection Requirement	Current Burden Hours	Proposed Burden Hours	Adjustment (Hours)	Proposed Cost (Item 12)	Responses	Explanation of Adjustment
(G) Training (Initial, Refresher, and Documentation) (paragraphs (g)(1)-(g)(3))	30,767	33,038	2,271	$718,577	660,768	The number of employees receiving training increased from 615,333 to 660,768 employees.
(H) Contractors (paragraphs (h)(2)(i)–(h)(2)(iii), (h)(2)(vi), and (h)(3)(iii))	756,200	699,400	-56,800	$23,863,528	3,497	The number of existing establishments decreased from 7,562 to 6,993.
(I) Written Procedures, Inspections, and Testing (paragraphs (j)(2) and (j)(4)(iv))	1,752,140	1,769,427	17,287	$35,750,880	12,078	The number of new and existing processes decreased from 12,578 to 12,078. (Also see explanation for (E) and (F), above.)
(J) Hot Work Permits (paragraph (k))	12,578 [20]	11,603	-975	$346,234	116,027	The estimated number of new establishments decreased (from 300 to 277). The number of existing establishments decreased from 7,562 to 6,993.
(K) Management of Change (paragraphs (l)(1), (l)(4) and (l)(5))	551,752	510,186	-41,566	$18,033,113	6,993	The number of existing establishments decreased from 7,562 to 6,993.
(L) Incident Investigations (paragraphs (m)(4)–(m)(7))	756,200	699,300	-56,900	$35,594,370	6,993	The number of existing establishments decreased from 7,562 to 6,993.
(M) Emergency Planning and Response (paragraph (n))	300	277	-23	$20,321	277	The estimated number of new establishments decreased (from 300 to 277).
(N) Compliance Audits (paragraphs (o)(1) and (o)(3)–(o)(5))	302,520	279,720	-22,800	$14,804,181	2,331	The number of existing establishments decreased from 7,562 to 6,993.

20 Upon careful review, the Agency identified an administrative error in Table A of the previous ICR. The current burden hour calculation in Item 12 for Item (J) is 12,548. Thus, the previous ICR contained an overestimation of 30 burden hours.

Information Collection Requirement	Current Burden Hours	Proposed Burden Hours	Adjustment (Hours)	Proposed Cost (Item 12)	Responses	Explanation of Adjustment
(O) Records Disclosure	28	58	30	$2,971	233	The number of inspected establishments increased from the previous ICR estimate, based on new inspection data.
(P) Trade Secrets	0	0	0	0	0	
TOTALS	**0**	**4,630,107**	**-165,398**	**0167,227,689**	**824,429**	