

**Supporting Statement For
Process Safety Management Standard Of Highly Hazardous Chemical
(29 CFR 1910.119, 29 CFR 1926.64)¹
(August 2016)**

A. JUSTIFICATION

1. Explain the circumstances that make the collections 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 collection of information 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.

¹The 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. Section 29 CFR 1926.64 is identical to 29 CFR 1910.119; the collections of information are approved under OMB control number 1218-0200.

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 five 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 three years, and more often if necessary.³ 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.

(H) Contractors (paragraphs (h)(2)(i) - (h)(2)(iv), (h)(2)(vi), (h)(3)(iii), and (h)(3)(v)). This paragraph imposes collections of information 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

³ The training requirements in paragraphs (g)(1) and (g)(2), 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 estimates described in Item 12.

workers in covered process areas.⁴ Paragraph (h)(2)(vi) requires the employer to maintain a 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.

(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

⁴The burden-hour and cost estimates associated with paragraph (h)(2)(iv) are included in the estimates for paragraph (f) in Item 12.

⁵In 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).

the incident; the factors that contributed to the incident; and any recommendations resulting from 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. 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 five 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 three 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 two reports be retained.

(O) 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 Control 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 A.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.

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 confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

Paragraph (e)(6) requires that the initial process hazard analysis be updated and revalidated by a team at least every five 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 five 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 three 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 two 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.

Pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3506(c)(2)(A)), OSHA published a notice in the *Federal Register* on March 21, 2016, (81 FR 15130) (Docket Number OSHA-2012-0039) soliciting comments on its proposal to extend and revise the Office of Management and Budget's approval of information collection requirements contained in the Standard on Process Safety Management of Highly Hazardous Chemicals. The notice was a part of a preclearance consultation program that provided the general public and government with an opportunity to comment. The Agency received one comment from Mr. M. Mohammed; Kettering University, stating that "OSHA is doing a good work to keep people's lives safe."

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

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

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

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 Communication 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 uses the Environmental Protection Agency's (EPA) Risk Management Program (RMP) database to estimate the number of establishments, employees, and processes that must comply with the paperwork requirements of the PSM Standard. All establishments in certain industries (chemical manufacturers, for example) are required by the RMP 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 North American Industry Classification System (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 RMP 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.

OSHA increased the number of facilities covered by this ICR as a result of a revision in the Agency's interpretation of the scope of the retail exemption of the Standard, 1910.119(a)(2)(i); this revision reflects the original intent of only excluding the NAICS industry retail codes, 44 and 45 from the scope of the Standard (referred to as the "retail exemption change" or "retail change" in burden hour and cost calculations). The Agency estimates that all EPA RMP level 2 facilities in the RMP database that are both not in retail NAICS 44-45 and not in agriculture (NAICS 111) will be covered by the PSM standard. Due to the lower technological complexity of these facilities, the Agency is using different unit cost estimates for retail facilities. They are derived from EPA's original RMP economic analysis for the industry category, Wholesalers, with all values from that analysis brought forward to 2013 dollars.⁶

Also additional facilities are included as a result of a revision in the Agency's enforcement policy on the minimum concentration of a chemical in a process needed in order to count that chemical toward the threshold quantity levels that trigger coverage under the PSM standard (referred to below as "concentration change"). This change brings in a smaller number of facilities (See discussion below).

The number of covered facilities and processes resulting from the new interpretation of the retail exemption is 4,815 facilities with 5,126 processes. This is based on the number of RMP facilities that are not retail, not agriculture (NAICS codes 111 and 112), have not self-identified as being under the PSM standard, and have at least one Program 2 process.

The number of facilities identified by the revised enforcement policy on minimum concentrations totals 90 facilities and 174 associated processes. Manufacturing facilities (NAICS 31-33) are the most likely to be affected and the Agency estimates this change by taking 3 percent of all NAICS 31-33 firms in the RMP database that are self-reported PSM facilities. There are 3,005 such sites with 5,787 associated processes, giving an estimate of 90 new facilities and 174 associated processes ($3,005 \times .03$ and $5,787 \times .03$).⁷

⁶ This is based on previous work done by OSHA in preparation for its 2016 PSM SBREFA Panel.

⁷ Note all totals are exact while numbers used to get to these totals are often presented as rounded numbers. Hence there will be small discrepancies in some calculations as presented in this document.

The inclusion of the 4,905 establishments (4,815 + 90) and 5,300 (5,126 + 174) processes will result in a “program change”⁸ increase in burden hours and costs in the first year.⁹ In subsequent years burden hours and costs associated with these establishments will be considered “adjustments.”

The Agency has adjusted the numbers from the 2012 ICR using the ratio of the change in the number of establishments from 2012 to 2015 as reported in the RMP database.¹⁰ Excluding the establishments added due the above program changes, the Agency estimates there are 6,209 establishments with at least one PSM-covered process, and there are a total of 9,478 covered processes. Updating these establishments and processes will result in a change in burden hours; these burden hour changes are categorized as an adjustment.

There is a small inflow of new facilities covered by the PSM standard each year that will result in an “adjustment” change in burden hours. The Agency identified all new PSM facilities that entered the RMP database over the last five years (2010 to 2014) and divided them by five to get an estimate of the annual number of new facilities entering PSM (this is the same methodology as past ICRs). This leads, in the first year, to an estimate that there are annually 154 new PSM-covered facilities with 167 associated processes.

As of March 2015, the RMP database contained reports from 12,546 sites. Of these, OSHA estimates that 11,114 establishments with 14,778 processes are covered under OSHA’s PSM Standard.

Three states--California, Delaware, and New Jersey--have their own PSM regulations which pre-date OSHA’s and were not included in the Regulatory Impact Analysis accompanying OSHA’s final PSM Standard. The current RMP database has 988 sites in these three states. All numbers presented here (other than the 12,465 overall totals in the database) do not include these sites.

Thus the overall number of new facilities and processes brought under PSM in the first year are the program changes plus the adjusted new inflow for a total of 5,059 facilities and 5,466 processes (4,905 Program change facilities + 154 new establishments; and 5,300 Program change processes + 167 new processes). After the first year, the Agency estimates (now including the average over the last 5 years of all new submissions under the retail exemption and concentration changes) that there will be 215 new facilities annually with an associated 230 processes. All estimates for future years assume a total fixed number of establishments so the analysis assumes the same number of establishments drop out of the PSM standard as the number who join (this is

⁸ When calculating burden hours, PRA classifies changes to burden hours into two categories: “program changes” and “adjustments.” Program changes result from new statutory requirements, discretionary actions taken by an agency, or new and resolved violations of the PRA. Adjustments reflect an agency re-estimates in the number of respondents. Such re-estimates are beyond the control of the agency. This supporting statement requests both “adjustments” and “a program change” to the current PSM burden hour estimate for the first year.

⁹ On December 23, 2015, OSHA issued an interim policy delaying the enforcement of the new retail

exemption interpretation until October 1, 2016. For the purposes of this analysis, OSHA assumes that the estimated burden for newly covered establishments would still be incurred in the first year of the newly authorized information collection.

¹⁰ There were approximately 12,546 establishments in the RMP database as of March, 2015. This represents an increase from the October, 2012 RMP data (as reported in the previous ICR) of 1%, or 133 facilities (from 12,413 to 12,546).

the same assumption as in past ICR's).

There is an assumption on the amount of time for facilities entering due to the change in the retail exemption interpretation. OSHA estimates that all these firms are under RMP Program 2 regulations. Facilities under RMP Program 2 already do some of the paperwork required by PSM. Therefore, to calculate time estimates for retail exemption change, OSHA estimates the incremental hours and cost burden that result from PSM obligations that are not included in EPA RMP Program 2 requirements. OSHA presents estimates of the percentage increments under each program element below. In the equations, this is referred to as the “RMP2 adjustment.” The concentration change is estimated to bring in completely new facilities that are not currently part of RMP so the same adjustments do not apply. After the first year, all retail establishments are assigned the same unit costs as the existing RMP pool. This will tend to overestimate costs and burdens in future years.

For this ICR analysis, OSHA classifies the changes in the first year burden hours (when the new facilities will be added) into two categories; adjustment and program changes. After the first year, all changes in burden hours are assumed to be adjustments; as a result, OSHA combines both “program change” facilities with the “adjustment” facilities.

In estimating the wage/hour 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 2015” by the Bureau of Labor Statistics have been adjusted to account for private-sector fringe benefits of 30.5 % of total compensation. These hourly compensation rates are:

Engineers:	
- Level III:	\$56.39
- Level IV:	\$65.90
- Level V:	\$80.75
- Level VI:	\$96.71
Blue-collar supervisor:	\$40.85
Production workers:	\$24.55
Service workers:	\$17.28
Clerical workers:	\$21.32
Management:	\$86.30 ¹¹
Professional/Technical:	\$62.12 ¹²

(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.

¹¹ NAICS Code 424 Merchant wholesalers, nondurable goods, General and Operations Managers (SOC 11-1021)

¹² NAICS Code 424 Merchant wholesalers, nondurable goods, Engineers (SOC 17-2000)

(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 two production workers, for a total of 208 hours per establishment. The total cost per establishment is \$7,988.90 (i.e., \$3,295 for a level IV engineer (\$65.90/hour x 50 hours), \$2,042.50 for a blue-collar supervisor (\$40.85/hour x 50 hours), and \$2,651.40 for 2 production workers (\$24.55/hour x 108 hours (54 hours each)).

From the EPA economic analysis for the RMP rule, for industry category Wholesalers, the Agency estimates this task for retail change facilities takes 4.5 hours of a Professional/Technical worker, for a cost of \$279.54 (4.5 x \$62.12). The Agency estimates that due to RMP Program 2 requirements, 90% of the PSM standard requirements would already be done by retail change establishments. This gives a per facility cost of bringing a retail change facility into PSM of \$27.95. Hence, the annual total burden hours and cost for these establishments are:

First Year Burden hour and Costs

Program Change:

Burden hours:

90 concentration change establishments x 208 hours = 18,720 hours

4,815 retail change establishments x (10%) RMP2 x 4.5 hours = 2,167 hours

Costs:

90 concentration change establishments x \$7,988.90 = \$719,001

4,815 retail change establishments x (10%) RMP2 x \$279.54 = \$134,599

Adjustment:

Burden hours: 154 new establishments x 208 hours = 32,032 hours

Costs: 154 new establishments x \$7,988.90 = \$1,230,291

Summary of First Year Burden hour and Costs by Program Change and Adjustment		
Establishments	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	18,720	\$719,001
Retail change	2,167	\$134,599
Subtotal	20,887	\$853,600
<i>Adjustment:</i>		
New Establishments	32,032	\$1,230,291
Total	52,919	\$2,083,891

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: 215 new establishments x 208 hours = 44,720 hours

Costs: 215 new establishments x \$7,988.90 = \$1,717,614

(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 is estimated to require 100 hours each from a level IV engineer and a blue-collar supervisor, as well as 18 hours each from two production workers, for a total of 236 hours per establishment. The total cost for each of these establishments is \$11,558.80 (i.e., \$6,590 for a level IV engineer (\$65.90/hour x 100 hours), \$4,085 for a blue-collar supervisor (\$40.85/hour x 100 hours), and \$883.80 for two production workers (\$24.55/hour x 36 hours (18 hours each)).

For each of the retail change establishments, this task is estimated to require four hours each from a manager and a professional/technical worker, and eight hours for a production worker, for a total of 16 hours per establishment. The total cost for each of these establishments is \$790.08 (i.e.,\$345.20 for a manager (\$86.30/hour x 4 hours), \$248.48 for a professional/technical worker (\$62.12/hour x 4 hours), and \$196.40 for a production worker (\$24.55/hour x 8 hours). The Agency estimates that due to RMP Program 2 requirements, 75% of the PSM standard requirements would already be done by retail change establishments. The estimated total burden hours and cost for these establishments each year are:

First Year Burden Hours and Costs

Program Change:

Burden hours:

90 concentration change establishments x 236 hours = 21,240 hours

4,815 retail change establishments x (25%) RMP2 adjustment x 16 hours = 19,260 hours

Costs:

90 concentration change establishments x \$11,558.80 = \$1,040,292

4,815 retail change establishments x (25%) RMP2 adjustment x \$790.08 = \$951,059

Adjustment:

Burden hours: 154 new establishments x 236 hours = 36,344 hours

Costs: 154 new establishments x \$11,558.80 = \$1,780,055

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Establishments	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	21,240	\$1,040,092

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Retail change	19,260	\$951,059

Subtotal	40,500	\$1,991,351
<i>Adjustment:</i>		
New Establishments	36,344	\$1,780,055
Total	76,844	\$3,771,406

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: 215 new establishments x 236 hours = 50,740 hours

Costs: 215 new establishments x \$11,558.80 = \$2,485,142

(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.

For retail establishments costs for this element are subsumed in the PHA above. The Agency determined the annual estimated burden hours and cost for this provision as follows:

First Year Burden Hours and Costs

Program Change:

Burden hours:

90 concentration change establishments x 22 hours = 1,980 hours

Costs:

Concentration change establishments: 1,980 hours x \$65.90 = \$130,482

Adjustment:

Burden hours: 154 new establishments x 22 hours = 3,388 hours

Costs: New establishments 3,388 hours x \$65.90 = \$223,269

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Establishments	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	1,980	\$130,482
Subtotal	1,980	\$130,482
<i>Adjustment:</i>		
New Est.	3,388	\$223,269
Total	5,368	\$353,751

Recurring Years Burden Hours and Costs (Adjustment):

Burden hours: 215 new establishments x 22 hours = 4,730 hours

Costs: 4,730 hours x \$65.90 = \$311,707

(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 five years (i.e., 20% of 9,478 processes, or 1,896, the first year, and 20% of 14,778, or 2,956, processes per year in each subsequent 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 \$8,130.50 (i.e., \$3,295 for a level IV engineer (\$65.90/hour x 50 hours) and \$4,835.50 for a level VI engineer (\$96.71/hour x 50 hours)). For the covered process, the estimated burden hours and cost each year is:¹³

Recurring Years Burden Hours and Costs (Adjustment)

First Year Burden Hours: 1,896 existing processes x 100 hours = 189,600 hours

First Year Cost: 1,896 existing processes x \$8,130.50 = \$15,415,428

Ongoing Burden¹⁴ Hours: 2,956 existing processes x 100 hours = 295,600 hours

Cost: 2,956 existing processes x \$8,130.50 = \$24,033,758

(F) Operating Procedures (paragraph (f)(1)-(f)(4)). It takes a level IV engineer 22 hours, at a cost of (\$65.90/hour), 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 230 new processes and 14,778 existing processes (for a total of 15,008 processes).

¹³Although 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.

¹⁴“Ongoing” estimates the average burden in future years. This estimate includes retail and concentration change establishments. The 106,000 hours an \$8,617,800 attributable to the retail and concentration change establishments are considered program changes since this is the first time these facilities would be updating, revalidating their process hazard analysis.

Due to the discrete entry of the retail and concentration changes, there will be an increase in these costs every 5 years due to the updating cycle. Breaking these out separately we have Retail: (5,126 processes + Concentration: 174 processes) x 20% = 1,060 processes x 100 hours = 512,560 hours; 5,126 processes x \$8,130 = \$41,674,380. For x 100 hours = 17,400 hours; 174 processes x \$8,130 = \$1,414,620.

It takes a manager for a retail change facility four hours to develop written operating procedures and safe work practices for each process. The cost per process is then \$345.20 (\$86.30/hour x 4 hours).

The retail establishments have a total of 5,126 processes. The Agency estimates that due to RMP Program 2 requirements, 95% of the PSM standard requirements would already be done by retail establishments. The yearly burden hours and cost for this provision are estimated to be:

First Year Burden Hours and Costs

Program Change:

Burden hours:

174 concentration change processes x 22 hours = 3,828 hours

5,126 retail change processes x (5%) RMP2 adjustment x 4 hours = 1,025 hours

Costs:

Concentration change processes: 3,828 hours x \$65.90 = \$252,265.20

Retail change processes: 1,025 hours x \$86.30 = \$88,458

Adjustment:

Burden hours: 9,645 other processes x 22 hours = 212,190 hours

Costs: 212,190 hours x \$65.90 = \$13,983,321

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Establishments	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	3,828	\$252,265
Retail change	1,025	\$88,458
Subtotal	4,853	\$340,723
<i>Adjustment:</i>		
New Establishments	212,190	\$13,983,321
Total	217,043	\$14,324,044

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: 15,008 processes x 22 hours = 330,176 hours

Costs: 330,176 hours x \$65.90 = \$21,758,598

(G) Training (Initial, Refresher, and Documentation) (paragraphs (g)(1)-(g)(3)). The Agency estimates that the Standard covers approximately 1,429,937 existing workers. OSHA assumes that the worker turnover rate for the affected establishments is 10% (142,994) of the workers per year, and that the 142,995 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 three years, for an annual total of 476,646 workers (i.e., one-third of 1,429,937 workers). For the first year, outside of retail and concentration change establishments, similar calculations assume 135,073 workers require initial training and 450,245 require refresher training. For establishments covered by the retail and concentration changes, all employees will have some initial training. A clerical worker takes three minutes (.05 hours) to generate and maintain the training record specified by paragraph (g)(3) for each of these workers, at an hourly wage rate of \$21.32.

EPA's economic analysis has a development of training program cost, and for retailers, this is 1.1 hours of a manager's time, at a cost of \$94.93 ((\$86.30/hour x 1.1 hours). The Agency estimates that due to RMP Program 2 requirements, 80% of the PSM standard requirements would already be done by retail change establishments. The RMP Program 2 does not require documenting individual worker's training; therefore the three minutes (.05 hours) to generate and maintain the training record by a clerical worker will be needed for each worker at a wage rate of \$21.32. The estimated annual burden hours and cost for this provision are:

First Year Burden hours and Costs

Program Change:

Burden hours:

3,480 concentration employees x .05 hours = 174 hours
 ((4,815 retail change establishments x (20%) RMP2 adjustment x 1.1 hours) = 1,059 hours) + ((75,723 retail change employees x .05 hours) = 3,786 hours) = 4,845 hours

Costs:

Concentration change establishments: 174 hours x \$21.32 = \$3,710
 Retail change establishments: ((1,059 hours x \$86.30) = \$91,391.70) + ((3,786 hours x \$21.32) = \$80,717.52) = \$172,109

Adjustment:

Burden hours: (135,073 + 450,245) employees x .05 hours = 29,266 hours

Costs: 29,266 hours x \$21.32 = \$623,951

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Establishments	Burden Hours	Costs
<i>Program Change:</i>		
Concentration Change	174	\$3,710
Retail change	4,845	\$172,109
Subtotal	5,019	\$175,819

<i>Adjustment:</i>		
New Establishments	29,266	\$623,951
Total	34,285	\$799,770

Recurring years Burden hours and Costs (Adjustment)

Burden hours: (142,994 + 476,646) employees x .05 hours = 30,982 hours

Cost: 30,982 hours x \$21.32 = \$660,536.24

(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 two production workers, for a total of 200 hours per establishment. In addition, the Agency finds that these paperwork requirements affect 50 percent of, or 5,664, all establishments each year. The total cost per establishment is \$7,792.50 (i.e., \$3,295 for a level IV engineer (\$65.90/hour x 50 hours), \$2,042.50 for a blue-collar supervisor (\$40.85/hour x 50 hours), and \$2,455 for two production workers (\$24.55/hour x 100 hours (50 hours each)).

For retail change establishments the Agency adapts EPA’s analysis for this population and takes no hours for this element. OSHA estimates the total burden hours and cost for these establishments each year to be:

First Year Burden Hours and Costs

Program Change:

Burden hours:

45 concentration change establishments x 200 hours = 9,000 hours

Costs:

45 concentration change establishments x \$7,792.50 = \$350,663

Adjustment:

Burden hours: 3,181 other establishments x 200 hours = 636,200 hours

Costs: 3,181 other establishments x \$7,792.50 = \$24,787,943

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Establishments	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	9,000	\$350,663
Subtotal	9,000	\$350,663
<i>Adjustment:</i>		
New Est.	636,200	\$24,187,943
Total	645,200	\$25,138,606

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: 5,664 establishments x 200 hours = 1,132,800 hours

Costs: 5,664 establishments x \$7,792.50 = \$44,136,720

(I) Written Procedures, Inspections, and Testing (paragraphs (j)(2) and (j)(4)(iv)). OSHA estimates that all processes, new and existing, 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 eight 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 \$3,044.75 (i.e., \$451.12 for a level III engineer (\$56.39/hour x 8 hours), \$347.23 for a blue-collar supervisor (\$40.85/hour x 8.5 hours), and \$2,246.40 for a service worker (\$17.28/hour x 130 hours)).

Based on judgment, each retail change process will need two hours of a professional/technical worker at a total cost of \$124.24 (\$62.12/hour x 2 hours). The Agency estimates that due to RMP Program 2 requirements, 80% of the PSM standard requirements would already be done by retail change establishments. The estimated total burden hours and cost for these processes each year are:

First Year Burden Hours and Costs

Program Change:

Burden hours:

174 concentration change processes x 146.5 hours = 25,491 hours

5,126 retail change processes x (20%) RMP2 adjustment x 2 hours = 2,050 hours

Costs:

174 concentration change processes x \$3,045 = \$529,830

5,126 retail change processes x (20%) RMP2 adjustment x \$124.24 = \$127,371

Adjustments

9,645 other processes x 146.5 hours = 1,412,993 hours

9,645 other processes x \$3,044.75 = \$29,366,614

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Processes	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	25,491	\$529,830
Retail change	2,050	\$127,371
Subtotal	27,541	\$657,201
<i>Adjustment:</i>		
Other	1,412,933	\$29,366,614
Total	1,440,534	\$30,023,815

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: 15,007 processes x 146.5 hours = 2,198,672 hours

Costs: 15,008 processes x \$3,044.75 = \$45,695,608

(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. All small establishments are assumed to have 1 process and thus issue a total of six permits annually, while the average number for large establishments for different groups is presented below. The inflow of new establishments is assumed to have the same percentage of large and small establishments as the existing population. In addition, a blue-collar supervisor, earning \$40.85 per hour, takes six minutes (0.1 hours) to complete this task.

Following the EPA analysis the Agency takes no hours for hot work for retail change establishments. The annual burden-hour and cost estimates for these establishments are:

First Year Burden Hours and Costs

Program Change:

Burden hours:

Concentration change establishments - ((82 large establishments x 2.01 average processes x 12 permits = 1,978) + (8 small establishments x 6 permits = 48)) = 2,026 permits x 0.1 hour = 203 hours

Costs: Concentration change establishments- 203 hours x \$40.85 = \$8,293

Adjustment:

Burden hours:

Other- ((4,282 large establishments x 1.78 average processes x 12 permits) + (2,081 small establishments x 6 permits) = 103,950 permits x 0.1 hour = 10,395 hours

Costs: 10,395 hours x \$40.85 = \$424,636

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Processes	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	203	\$8,293
<i>Adjustment:</i>		
Other	10,395	\$424,636
Total	10,598	\$432,929

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: ((5,087 large establishments x 1.73 average processes x 12 permits = 105,606) + (6,242 small establishments x 6 permits = 37,542)) = 143,058 permits x 0.1 hour = 14,306 hours

Cost: 14,306 hours x \$40.85= \$584,400

(K) Management of Change (paragraphs (I)(1), (I)(4), and (I)(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 different hour requirements for large and small establishments, shown below. New establishments are assumed to have the same percentage of large and small establishments as the existing population. The Agency estimates that affected small establishments have one covered process each. The Agency estimated that on average each small establishment would require 6.0 hours for a level IV engineer, earning \$65.90 per hour, and 12.3 hours for production workers earning \$24.55 per hour. The total burden unit hours per small establishment are 18.3 hours (6.0 + 12.3). The average cost per hour is then \$38.11 (((\$65.90*6 + \$24.55*12.3)/(6 + 12.3)). To account for the greater complexity of processes utilized by large establishments, the Agency increased the estimated burden hours for large establishments by a factor of three so giving 54.9 (18.3 x 3) hours per process.

From EPA's economic analysis the Agency estimates one hour of a manager's time would be needed to develop management of change procedures, regardless of establishment size, at a cost of \$86.30 (\$86.30/hour x 1 hour). The Agency estimates that there is no adjustment due to RMP Program 2 requirements for retail change establishments. The estimated total burden hours and cost are:

First Year Burden Hours and Costs:

Program Change:

Burden hours:

Concentration change establishments- ((82 large establishments x 2.01 average processes x 54.9 hours = 9,049) + (8 small establishments x 18.3 hours = 146)) = 9,195 hours

Retail change establishments- 4,815 x 1 hour = 4,815 hours

Costs:

Concentration change establishments - 9,195 hours x \$38.11 = \$350,422

Retail- 4,815 hours x \$86.30 = \$415,535

Adjustment:

Burden hours:

other- ((4,282 large establishments x 1.78 average processes x 54.9 hours = 418,446) + (2,081 small establishments x 18.3 hours = 38,082)) = 456,528 hours

Costs:

Other- 456,528 hours x \$38.11 = \$17,398,282

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Processes	Burden Hours	Costs
<i>Program Change:</i>		
Concentration changes	9,195	\$350,422
Retail change	4,815	\$415,535
Subtotal	14,010	\$765,957
<i>Adjustment:</i>		
Other	456,528	\$17,398,282
Total	470,538	\$18,164,239

Recurring Years Burden Hours and Costs (Adjustment)

Burden hours: ((5,087 large establishments x 1.73 average processes x 54.9 hours = 483,148) + (6,242 small establishments x 1 process x 18.3 hours = 114,229)) = 597,377 hours

Cost: 597,377 hours x \$38.11= \$22,766,037

(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 five 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.¹⁵ The Agency finds that each establishment has 1 reportable incident each year.¹⁶ The total cost per concentration establishment is \$5,847.68 (i.e., \$1,292 for a level V engineer (\$80.75/hour x 16 hours), \$3,163.20 for a level IV engineer (\$65.90 x 48 hours), \$1,307.20 for a blue-collar supervisor (\$40.85/hour x 32 hours), and \$85.28 for a clerical worker (\$21.32/hour x 4 hours)). For retail change establishments the Agency estimates that an incident investigation requires six hours from a manager and 2.5 hours from a production worker. Each retail change establishment has one incident per year, at a cost of \$579.18 ((i.e., \$517.80 for a manager (\$86.30/hour x 6 hours), and \$61.38 for a production worker (\$24.55 x 2.5 hours). There is no adjustment due to RMP Program 2 requirements for retail change establishments. The Agency determines that the total burden-hour and cost estimates for these establishments each year are:

First Year Burden Hours and Costs

Program Change:

Burden hours:

90 concentration establishments x 100 hours = 9,000 hours

4,815 retail establishments x 8.5 hours = 40,928 hours

Costs:

90 concentration establishments x \$5,847.68 = \$526,291

4,815 retail establishments x \$579.18 = \$2,788,752

Adjustment:

6,363 other establishments x 100 hours = 636,300 hours

6,363 other establishments x \$5,847.68 = \$37,208,788

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Processes	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	9,000	\$526,291
Retail change	40,928	\$2,788,752
Subtotal	49,928	\$3,315,043
<i>Adjustment:</i>		
Other	636,300	\$37,208,788
Total	686,228	40,523,831

¹⁵The 100-hour estimate is based on comments submitted in response to the 1996 ICR.

¹⁶From the original RIA.

Recurring years Burden hours and Costs (Adjustment):

Burden hours: 11,329 establishments x 100 hours = 1,132,900 hours

Costs: 11,329 establishments x \$5,847.68 = \$66,248,367

(M) Emergency Planning and Response (paragraph (n)). It takes one hour of a level V engineer’s time (at \$80.75 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 Agency estimates that retail change facilities will also need one hour, the same as for other RMP facilities, and estimates a Professional/Technical worker would be required, at a cost of \$62.10 (\$62.10 x 1 hour). The Agency estimates that there is no adjustment due to RMP Program 2 requirements for retail change establishments. The yearly burden hours and cost for these establishments are estimated to be:

First Year Burden Hours and Costs

Program Change:

Burden hours:

90 concentration change establishments x 1 hour = 90 hours

4,815 retail change establishments x 1 hour = 4,815 hours

Costs:

90 concentration change establishments x \$80.75 = \$7,268

4,815 retail change establishments x \$62.10 = \$299,012

Adjustment:

Burden hours: 154 new establishments x 1 hour = 154 hours

Cost: 154 new establishments x \$80.75 = \$12,436

Summary of First Year Burden Hours and Costs By Program Change and Adjustment		
Processes	Burden Hours	Costs
<i>Program Change:</i>		
Concentration change	90	\$7,268
Retail change	4,815	\$299,012
Subtotal	4,905	\$306,280
<i>Adjustment:</i>		
Other	154	\$12,436
Total	5,059	\$318,716

Recurring years Burden hours and Costs (Adjustment):

Burden hours: 215 new establishments x 1 hour = 215 hours

Cost: 215 hours x \$80.75= \$17,361

(N) Compliance Audits (paragraphs (o)(1) and (o)(3)–(o)(5)). Certifying compliance with the standard once every three 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 two 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 eight hours from a clerical worker, for a total of 120 hours to complete these paperwork tasks. For the first year the Agency estimates that 2,070 establishments are affected by these provisions (6,209 divided by 3), and then, ongoing, that 3,705 establishments will be affected by these provisions each year (11,114 divided by 3).¹⁷ The total cost per establishment is \$7,224.96 (i.e., \$2,584 for a level V engineer (\$80.75/hour x 32 hours), \$3,163.20 for a level IV engineer (\$65.90 x 48 hours), \$1,307.20 for a blue-collar supervisor (\$40.85/hour x 32 hours), and \$170.56 for a clerical worker (\$21.32/hour x 8 hours). For each year, the estimated total burden hours and cost for these establishments are:

First Year Burden Hours: 2,070 establishments x 120 hours = 248,400 hours

Cost: 2,070 establishments x \$7,224.96 = \$14,955,667

Ongoing Burden Hours: 3,705 establishments x 120 hours = 444,600 hours

Cost: 3,705 establishments x \$7,224.96 = \$26,768,477

(O) Records Disclosure. OSHA has determined that employers disclosing training records to OSHA during an inspection is not covered by the PRA.

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, 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**

¹⁷The Agency arrived at this number by applying the compliance rate used in the original RIA to the new estimated number of affected establishments.

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.

Information collected by the Agency during an investigation is not subject to the PRA under 5 CFR 1320.4(a)(2). Therefore, OSHA takes no cost to the Federal Government in this Supporting Statement.

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

The Agency requests OMB to approve both a program change and an adjustment to this ICR that will decrease the burden hours of this ICR by 547,491 hours, from 4,630,107 to 4,082,616 hours.

The Agency requests a burden hour program change increase of 178,826 hours as a result of including additional retail exemption establishments, and additional establishments resulting from the revision in the Agency's enforcement policy on the minimum concentration of a chemical in a process needed in order to count that chemical toward the threshold quantity levels that trigger coverage under the PSM standard. The Agency is also requesting a burden hour adjustment reduction of 726,317 due to a reduction in the number of "currently approved" establishments and processes.

For subsequent years, OSHA will be requesting an overall total increase of 2,195,202 hours from the proposed 2016 initial burden request of 4,082,616 hours to 6,277,818 hours. This increase mainly results from an adjustment increased for the total number of covered establishments by incorporating the retail exemption and concentration change establishments into the total. There is a small program change increase of 106,000 hours increase as a result of a portion of the concentration and retail change establishments conducting their first update and revalidation of their process hazard analysis.

Tables 1a and 1b below provides the rationale for each burden hour change. Table 1a for the initial year calculates the retail exemption and concentration level for Appendix A chemicals separately from the rest of the standard.

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.

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.

OSHA is not seeking an exception to the certification statement.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS.

There are no collections of information employing statistical methods.

Table 1a Summary of Burden Hour Changes – Initial Year

Information Collection Requirement	Current Burden Hours	2016 Adjustments	New 2016 Adjustment Burden Hours	Proposed Program Change Hours	Total 2016 Requested Burden Hours	Cost	Responses	Explanation of Change
(A) Employee Participation (paragraph (c))	0	0	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))	57,616	-25,584	32,032	20,887	52,919	\$2,083,891	726	Adj. - The number of new establishments decreased from 277 to 154. PC - Added 90 concentration change establishments and 4,815 retail change establishments.
(C) Process Hazard Analysis (paragraph (e)(1))	65,372	-29,028	36,344	40,500	76,844	\$3,771,406	1,448	Adj.- The number of new establishments decreased from 277 to 215. PC. - Added 90 concentration change establishments and 4,815 retail change establishments.
(D) Resolution of Hazards (paragraph (e)(5))	6,094	-2,706	3,388	1,980	5,368	\$353,751	244	Adj.- The number of new establishments decreased from 277 to 215. PC - Added 90 concentration change establishments and 4,815 retail change establishments.
(E) Updating, Revalidating, and Retaining the Process Hazard Analysis (paragraphs (e)(6) and (e)(7))	232,300	-42,700	189,600	0	189,600	\$15,415,428	1,896	Adj.- The number of current processes decreased from 2,323 to 1,896.

(F) Operating Procedures (paragraph (f)(1) - (f)(4))	265,716	-53,526	212,190	4,853	217,043	\$14,324,044	10,075	Adj.- The number of processes decreased from 12,078 to 9,645. PC. - Additional processes were added for retail and concentration change establishments.
(G) Training (Initial, Refresher, and Documentation) (paragraphs (g)(1))	33,038	-3,772	29,266	5,019	34,285	\$799,770	665,484	Adj. Number of workers receiving training decreased from 660,768 to 585,318. PC – An additional 79,203 training records were added for retail and concentration change employees.
(H) Contractors (paragraphs (h)(2)(i) – (h)(2)(iii), (h)(2)(vi), and (h)(3)(iii))	699,400	-63,200	636,200	9,000	645,200	\$25,138,606	3,226	Adj.- The number of establishments with this paperwork burden decreased from 3,497 to 3,181. PC – An additional 2,453 establishments were added for retail and concentration change establishments.
(I) Written Procedures, Inspections, and Testing (paragraphs (j)(2) and (j)(4)(iv))	1,769,427	-356,434	1,412,993	27,541	1,440,534	\$30,023,815	14,945	Adj.- The number of processes decreased from 12,078 to 9,645. PC. - An additional 1,199 processes were added for retail and concentration change establishments.
(J) Hot Work Permits (paragraph (k))	11,603	-1,208	10,395	203	10,598	\$432,924	105,976	Adj.- The number of permits decreased from 116,027 to 103,949 . PC – An additional 39,000 permits were added for retail and concentration change establishments.
(K) Management of Change (paragraphs (l)(1), (l)(4) and (l)(5))	510,186	-53,658	456,528	14,010	470,538	\$18, 164,239	14,691	Adj.- The number of establishments decreased from 6,993 to 6,363. PC - Additional processes were added for retail and concentration change establishments.

(L) Incident Investigations (paragraphs (m) (4) – (m)(7))	699,300	-63,000	636,300	49,928	686,228	\$40,523,831	11,268	Adj.- The number of establishments decreased from 6,993 to 6,363. PC - Added 90 concentration change establishments and 4,815 retail change establishments.
(M) Emergency Planning and Response (paragraph (n))	277	-123	154	4,905	5,059	\$318,716	5,059	Adj.-The number of new establishments decreased from 277 to 215. PC - Added 90 concentration change establishments and 4,815 retail change establishments.
(N) Compliance Audits (paragraphs (o)(1) and (o)(3) – (o) (5))	279,720	-31,320	248,400	0	248,400	\$14,955,667	2,070	Adj.- The number of establishments decreased from 2,331 to 2,070.
(O) Records Disclosure	58	-58	0	0	0	\$0	0	Adj. - OSHA has determined that disclosing records during OSHA inspections is not covered by PRA.
TOTALS	4,630,107	-726,317	3,903,790	178,826	4,082,616	\$166,306,093	833,007	

Table 1b Requested Burden Hour Adjustments - Ongoing

Information Collection Requirement	Requested 2016 Hours	Proposed Recurring Hours	Change in Hours	Proposed Cost	Responses	Explanation of Adjustment/ Program Change.
(A) Employee Participation (paragraph (c))		\$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))	52,919	44,720	-8,199	\$1,717,614	215	Adj. - Reduction in hours results from concentration and retail change establishments completing their initial written process safety information required by this provision.
(C) Process Hazard Analysis (paragraph (e)(1))	76,844	50,740	-26,104	\$2,485,142	215	Adj. - Reduction in hours results from concentration and retail change establishments completing their initial process hazard analysis for each covered process.
(D) Resolution of Hazards (paragraph (e) (5))	5,368	4,730	-638	\$311,707	215	Adj. - Reduction in hours results from concentration and retail change establishments completing documenting how and when they resolve the findings and recommendations of the team that conducted the process hazard analysis, and communicating this information to the appropriate workers.
(E) Updating, Revalidating, and Retaining the Process Hazard Analysis (paragraphs (e)(6) and (e) (7))	189,600	295,600	106,000	\$24,033,758	2,956	PC. - There is a program change as a result of a portion of the concentration and retail change establishments conducting their first update and revalidation.

(F) Operating Procedures (paragraph (f) (1) - (f)(4))	217,043	330,176	113,133	\$21,758,598	15,008	Adj. - An overall increase in hours results from including the number of concentration and retail change establishments in the number of recurring processes estimate.
(G) Training (Initial, Refresher, and Documentation) (paragraphs (g) (1) - (g)(3))	34,285	30,982	-3,303	\$660,536	619,640	Adj. - An overall decrease in burden hours resulted from concentration and retail change establishments completing their initial training. The number of recurring employees did increase as a result of counting concentration and retail change establishments in the estimate.
(H) Contractors (paragraphs (h)(2)(i) – (h)(2)(iii), (h)(2)(vi), and (h)(3)(iii))	645,200	1,132,800	487,600	\$44,136,720	5,664	Adj. - An overall increase in hours resulted from increasing the number of establishments covered by these provisions as result of counting concentration and retail change establishments in the recurring estimate.
(I) Written Procedures, Inspections, and Testing (paragraphs (j) (2) and (j)(4) (iv))	1,440,534	2,198,672	758,138	\$45,695,608	15,008	Adj. - An overall increase in hours results from including concentration and retail change establishments in the recurring number of establishments establishing and implementing written procedures, and documenting each inspection and test performed on process equipment.
(J) Hot Work Permits (paragraph (k))	10,598	14,306	3,708	\$584,400	143,396	Adj. - An overall increase in hours results from including concentration and retail change establishments in the recurring number of establishments issuing hot work permits.
(K) Management of Change (paragraphs (l) (1), (l)(4) and (l)(5))	470,538	597,377	126,839	\$22,766,037	15043	Adj. - An overall increase in hours results from including concentration and retail change establishments in the recurring number of establishments developing written management-of-change procedures and updating process safety information and operating procedures.

(L) Incident Investigations (paragraphs (m)(4) – (m)(7))	686,228	1,132,900	446,672	\$66,248,367	11,329	Adj. - An overall increase in hours results from including concentration and retail change establishments in the recurring number of establishments preparing incident investigation reports, providing the report for review by workers whose job tasks are relevant to the incident findings, and retaining the reports for five years.
(M) Emergency Planning and Response (paragraph (n))	5,059	215	-4,844	\$17,361	215	Adj. - An overall reduction in hours results from concentration and retail change establishments completing their initial emergency action plan.
(N) Compliance Audits (paragraphs (o)(1) and (o)(3) – (o)(5))	248,400	444,600	196,200	\$26,768,477	3,705	Adj. - An overall increase in hours results from including concentration and retail change establishments in the recurring number of establishments complying with the compliance audit paragraphs.
TOTALS	4,082,616	6,277,818	2,195,202	\$257,184,325	832,609	