

**Revision to the
COKE OVEN EMISSIONS STANDARD
(29 CFR 1910.1029)
Supporting Statement**

The Standards Improvement Project–Phase III (SIP-III) is the third in a series of rulemaking actions to improve and streamline OSHA standards. The Standard Improvement Projects remove and revise individual requirements in standards that are confusing, outdated, duplicative or inconsistent. In May 2011, OSHA published the SIP-III final rule.

The SIP-III final rule removed from 25 of OSHA’s substance-specific standards (see 29 CFR 1910, subpart Z) the requirements for employers to transfer worker exposure-monitoring and medical records to the National Institute for Occupational Safety and Health (NIOSH), and to notify NIOSH prior to disposal of such records. As a result of removing these transfer and notification requirements, OSHA is revising the 25 corresponding Information Collection Requests (ICRs)¹ to reduce the burden-hour and cost estimates associated with these provisions.

Edits to this supporting statement consists of strikethroughs and highlighted yellow text. These edits indicate removal of the requirement for employers to transfer records to NIOSH and removal of the requirement for employers to develop and maintain worker training-certification records. Language deleted from this Supporting Statement is struck-through. Language added to the supporting statement appears highlighted in yellow.

¹ The section of the preamble in the final SIP-III rule titled, *Office of Management and Budget Review Under the Paperwork Reduction Act of 1995* lists the 27 ICRs being revised. The 27 ICRs are being revised as follows: 23 ICRs are revised as a result of removing the requirements for employers to transfer records to NIOSH; two ICRs are being revised to remove both the requirements for employers to transfer records to NIOSH and for employers to prepare training certifications; and, two additional ICRs are being revised to remove only training certifications.

**SUPPORTING STATEMENT FOR THE
INFORMATION COLLECTION REQUIREMENTS OF THE
COKE OVEN EMISSIONS STANDARD (29 CFR 1910.1029)²
OFFICE OF MANAGEMENT AND BUDGET (OMB)
CONTROL NO. 1218-0128 (May 2011)**

A. JUSTIFICATION

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

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

For toxic substances, the OSH Act contains specific statutory language. Thus, as appropriate, health standards must include provisions for monitoring and measuring employee exposure, medical examinations and other tests, control and technological procedures, suitable protective equipment, labels and other appropriate forms of warning, and precautions for safe use or exposure (29 U.S.C. 655 and 657). In this regard, the OSH Act mandates "regulations requiring employers to maintain accurate records of employee exposure to potentially toxic materials or other harmful physical agents which are required to be monitored and measured," and further requires that employers notify employees exposed to concentrations over prescribed limits of this fact, and of the corrective action they are taking (29 U.S.C. 657).

Under the authority granted by the OSH Act, the Occupational Safety and Health Administration (OSHA) published a health standard governing employee exposure to Coke Oven Emissions (29 CFR 1910.1029) (the "COE Standard" or "Standard").³ The purpose of the Standard is to reduce the incidence of cancer, especially lung cancer among employees exposed to coke oven emissions (COE). COE results primarily from the destructive distillation or carbonization of coal during the production of coke, a process commonly found in the steel industry. Items 2 and 12 below list and describe the specific information collection requirements of the Coke Oven

²The purpose of this Supporting Statement is to analyze and describe the burden hours and costs associated with provisions of this Standard that contain paperwork.

³29 CFR 1910.1029 is incorporated by reference in the Construction and Shipyard Employment standards (29 CFR 1926.1129 and 29 CFR 1915 & 1917).

Emissions Standard.

Exposure to coke oven emissions occurs for workers in the aluminum, steel, graphite, electrical, and construction industries. Chronic (long-term) exposure to coke oven emissions in humans results in conjunctivitis, severe dermatitis, and lesions of the respiratory system and digestive system. Cancer is the major concern from exposure to coke oven emissions. Epidemiologic studies of coke oven workers have reported an increase in cancer of the lung, trachea, bronchus, kidney, prostate, and other sites. Animal studies have reported tumors of the lung and skin from inhalation exposure to coal tar.

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.**

Exposure Monitoring and Measurement (§ 1910.1029(e))

Monitoring Program (§ 1910.1029(e)(1))

Employers who expose employees to COE must perform exposure monitoring in regulated areas⁴ to determine the extent of employee COE exposure. The employer shall obtain measurements which are representative of each employee's exposure to coke over emissions over an eight-hour period. Employers must collect full-shift (i.e., for at least 7 continuous hours) personal samples, including at least 1 sample during each shift for each battery and each of the following job classifications including lidman, tar chaser, larry car operator; luterman; machine operator, coke side; benchman, coke side; benchman, pusher side, heater, quenching car operator; pusher machine operator; screening station operator; wharfman; oven patcher; oven repairman; Spellman; and maintenance personnel 1910.1029(e)(1)(iii), without regard to the use of respiratory protection. Such monitoring assists employers in identifying areas of operation that may require additional efforts to reduce employee exposure and to come into compliance with the Standard. Exposure-monitoring results also assist employers in determining the need for engineering controls, instituting or modifying work practices, and in selecting appropriate respiratory protection to prevent employees from overexposure.

If the employer implements all engineering and work practice controls required, and the employee exposure still exceeds the permissible exposure limit, the employer shall implement any other engineering and work practice controls necessary to reduce exposure to or below the permissible exposure limit except to the extent that the employer can establish that such controls are not feasible.

⁴Regulated areas consist of: The coke-over battery, including topside and its machinery, pushside and its machinery, coke side and its machinery, battery ends, wharf, and screening station; and the beehive oven and its machinery (29 CFR 1910.1029(d)).

Employers must repeat exposure monitoring every 3 months. The purpose of this periodic monitoring is because minor changes in processes, materials, or environmental conditions may increase the airborne concentration levels of COE. By using periodic monitoring, employers can also evaluate the effectiveness of selected control methods. In addition, these measurements remind both the employer and employees of the continuing need to protect against the hazards that could result from employee overexposure.

Redetermination (§ 1910.1029(e)(2))

The employer must perform additional monitoring if: A change occurs in COE-related production, processes, or controls that may result in new or additional employee exposure; or the employer has any reason to suspect an increase in employee exposure. Such monitoring ensures that the work area is safe and alerts the employer that protection may still be needed.

Employee Notification (§ 1910.1029(e)(3))

The employer must notify each employee in writing of the exposure-monitoring results within 15 working days after receiving the results. If the results exceed the permissible exposure limit (PEL), the employer must, in the written notification of the results, inform the employee of the corrective actions the employer is taking to prevent employee overexposure.

The point of notification is to ensure that employees are aware of their exposures to OSHA-regulated substances. The Agency concluded that this goal can be met either through individual written notification or through posting the results in a location that is readily accessible to all employees whose results are being posted.

Compliance Program (§ 1910.1029(f)(6))

Employers must establish and implement a written program to reduce employee COE exposure to or below the PEL using the engineering and work-practice controls specified in paragraphs (e)(3)(ii), (f)(3)(i), (a), (b), (c), (f)(3)(ii), (f)(3)(iii)(b), and (f)(3)(iv) of the Standard. The written program must: Describe each coke-oven operation by battery, including work force and operating crew, coking time, mean to control coke oven emissions, operating procedures, and maintenance practices; engineering plans and other studies used to determine the controls for the coke battery; a report of the technology considered in meeting the PEL; monitoring data; and a detailed schedule for implementing the required engineering and work-practice controls. Written plans for such programs shall be submitted, upon request, to the Secretary and the director, and shall be available at the worksite for examination and copying by the Secretary, the Director, and the authorized employee representative. The plans required under paragraph (f)(6)

of this section shall be revised and updated at least annually to reflect the current status of the program.

Respiratory Protection (§ 1910.1029(g))

If respirators are required, the employer must establish a respiratory-protection program in accordance with 29 1910.134, paragraphs (b) through (d) (except (d)(1)(iii)), and (f) through (m). Paragraph (c) of 29 CFR 1910.134 requires employers to develop and implement a written respiratory-protection program with worksite-specific procedures, as well as elements for respirator use. The purpose of these requirements is to ensure that employers establish a standardized procedure for selecting, using, and maintaining respirators for each workplace in which respirators will be used. Developing written procedures ensures that employers implement a respirator program that meets the needs of their employees. OSHA incurs the burden hours and costs resulting from these program requirements under the information collection request (ICR) for OSHA's Respiratory Protection Standard (29 CFR 1910.134), OMB Control Number 1218-0099.

Notification of Laundry Personnel (§ 1910.1029(h)(2)(vi))

Employers must notify laundry personnel who clean or launder protective clothing of the potential harmful effects of COE. This information allows such personnel to protect themselves from COE exposure.

Medical Surveillance (§ 1910.1029(j))

General (§ 1910.1029(j)(1), (j)(2), and (j)(3))

Employers must implement a medical-surveillance program for employees who work in a regulated area for 30 or more days per year; these employees are referred to as "covered employees." The results of medical examinations administered under this program must be documented and maintained. Employers must inform any employee who refuses any required medical examination of the possible health consequences of such refusal and must obtain a signed statement from the employee indicating that the employee understands the risk involved in the refusal to be examined.

Documentation and maintenance of medical-examination results provide a continuous record of employee health. Physicians use these records to determine the extent to which employees have experienced COE-related health effects since their last examination. Further, if symptoms of organic damage appear, the physician often needs information about an employee's previous medical conditions to make an accurate diagnosis of the new condition, ascertain its apparent cause, and identify a course of treatment. Medical records also permit employees to determine whether or not they need treatment, or to evaluate the effectiveness of their employer's exposure-reduction program, consequences of not taking an exam.

Employers must provide an initial medical examination including work and medical history, and a 14" x "17 standard posterior-anterior chest x-ray, pulmonary function tests (FVC and FEV 1.0), weight, urinalysis, skin examination, and a urinary cytologic examination for each covered employee. Thereafter, employers must ensure that covered employees who are: 45 years of age or older, or who have 5 or more years of employment in a regulated area, receive an annual medical examination. Whenever an employee who is 45 years of age or older or with five (5) or more years employment in a regulated area transfers or is transferred from employment in a regulated area, the employer must continue to provide the examinations specified in paragraphs (j)(2)(i) through (j)(2)(vii) of this section at least annually as long as that employee is employed by the same employer or a successor employer. Additional tests such as lateral and oblique x-rays or additional pulmonary function tests may be performed if deemed necessary. Employers must also provide a medical examination for covered employees who have not had a medical examination within 6 months of terminating employment.

Information provided to the physician.

The employer must provide physicians with the following information: A copy of the Standard, including the appendices; a description of the employee's duties as they relate to the employee's COE exposure; the employee's actual or estimated COE exposure; a description of personal-protective equipment used or to be used by the employee; and information from previous employment-related medical examinations of the employee that are not readily available to the physician.

Making the required information available to the physician will aid in the evaluation of the employee's health and fitness for specific job assignments involving COE exposure. As noted earlier, if symptoms of organic damage appear, the physician often needs information about an employee's previous medical conditions to make an accurate diagnosis of the new condition, to ascertain its apparent cause, and to identify a course of treatment. Medical records also ensure that employees can determine whether or not treatment is needed, or to evaluate the effectiveness of the employer's exposure-reduction program.

Physician's Written Opinion (§ 1910.1029(j)(5))

The employer must obtain and provide to the employee the physician's written opinion containing the following information: The results of the medical examination; the physician's opinion indicating if the employee has any medical conditions that may place the employee at increased risk of material impairment to health from continued COE exposure; any recommended limitations on the employee's COE exposure or on the use of protective clothing or equipment such as respirators; and a statement that the physician informed the employee of the results of the medical examination, including any medical conditions that require further explanation or treatment.

The purpose of requiring the employer to obtain a written opinion from the physician is to provide the employer with medical information to aid in determining the initial placement of

employees, and to assess an employee's ability to use protective clothing and equipment. The physician's opinion will also provide information to the employer about whether or not the employee has a condition indicating overexposure to COE. The requirement that a physician's opinion be written will ensure that the information is properly memorialized for later reference. The requirement to provide employees with a copy of the physician's written opinion will ensure that they are informed of the results of the medical examination so that they can assist in determining the need for, and evaluate the effectiveness of, treatment or other interventions.

Employee Information and Training (§ 1910.1029(k))

Employers must provide initial training to those employees who will work in regulated areas, and annual training to employees who work in regulated areas. The training must include the following topics: The information contained in the substance information sheet for COE (Appendix A); the purpose, proper use, and limitations of required respiratory-protective equipment; the purpose for, and a description of, the required medical-surveillance program, including information on the occupational safety and health hazards associated with COE exposure; a review of all written procedures and schedules required under paragraph (f) of the Standard; and a review of the Standard. The employer must make all information and training materials available to OSHA compliance officers and NIOSH. In addition, the employer must ensure that a copy of the Standard is available to employees who work in regulated areas.

Training is essential to inform employees of the hazards to which they are exposed, and to provide them with information they can use to minimize the health hazards of COE. Training also serves to explain and reinforce the information presented to employees on signs and labels, which will be useful and effective only if employees understand the health hazards of COE and are aware of the actions they can take to avoid or minimize COE exposures.

Precautionary Signs and Labels (§ 1910.1029(l))

The employer must post warning signs in regulated areas. Posting these signs serves to warn employees that they are in a hazardous area. Such signs warn employees that they can enter a regulated area only if they have authority to do so and a specific need exists to enter the area. Warning signs also supplement the training employees receive under the Standard. The signs must read: "Danger: Cancer hazard. Authorized personnel only. No smoking or eating." In addition, employers must post warning signs in areas that exceed the PEL; these signs must state: "Danger: Respirator required."

Employers also must apply warning labels to all containers housing COE-contaminated protective clothing that read: "Caution: Clothing contaminated with coke emissions. Do not remove dust by blowing or shaking." These hazard labels will alert personnel who launder

protective clothing that the clothing is contaminated with COE, thereby allowing them to take necessary precautions to protect themselves from COE exposure.

Recordkeeping (§ 1910.1029(m))

Exposure Measurements and Medical Surveillance (§ 1910.1029(m)(1) and (m)(2))

Employers must establish and maintain exposure-monitoring and medical-surveillance records. This requirement provides both employees and employers with access to useful information. The exposure-monitoring and medical-surveillance records required by this Standard will aid the employee and their physicians in determining whether or not treatment or other interventions are needed as a result of the employee's exposure to COE. The information also will enable employers to ensure that employees are not being overexposed to COE; such information may alert the employer to take additional steps to reduce COE exposures.

Exposure-monitoring records and medical-surveillance records must be kept for at least 40 years, or for the duration of employment plus 20 years, whichever is longer. Records must be kept for extended periods because of the long latency associated with the development of cancers resulting from COE exposure.

Availability (§ 1910.1029(m)(3))

Employers must provide all records required by the Standard on request to OSHA and NIOSH for examination and copying moreover, each employee's exposure-monitoring and medical records shall be provided upon request to that employee and their designated representatives. This information

Transfer of Records (§ 1910.1029(m)(4))

~~Employers who cease to do business must transfer their records to the successor employer, who must receive and retain the records for the prescribed periods. Employers who cease to do business and have no successor employer must transfer the medical and exposure monitoring records to NIOSH. Other employers, before disposing of these records at the end of the specified retention periods, must notify NIOSH of the impending disposal, and transfer the records to NIOSH if it requests the records within 3 months of being so notified. These employers also must comply with any additional requirements specified by 29 CFR 1910.1020(h). These records may be used by NIOSH for research purposes, and by employees for health assessments and other reasons.~~

- 3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.**

Employers may use improved information technology when making, keeping, and preserving the required records. The Standard is written in performance-oriented language, i.e., in terms of what data to collect, not how to collect the data.

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

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

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

The information collection requirements of the Standard do not have a significant impact on a substantial number of small entities.

6. **Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

The information collection frequencies specified by the Standard are the minimum necessary to ensure that employers and OSHA can effectively monitor the exposure and health status of employees exposed to COE.

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 a 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.

Employers are required to inform each employee either individually in writing or by posting the results of their exposure-monitoring results within 15 working days after receiving the results (29 CFR 1910.1029(e)(3)). If these results indicate employee exposures above the PEL, this written notification must state this fact and describe the corrective action the employer is taking to reduce the employee's exposure to or below the PEL.

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

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

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

The SIP-III notice of proposed rulemaking (NPRM; 75 FR 38645) proposed to revoke existing collection-of-information (paperwork) requirements contained in 27 existing Information Collection Requests (ICRs) approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (PRA-95). OSHA prepared and submitted one ICR for the SIP-III proposal to OMB for the review in accordance with 44 U.S.C. 3507(d). For the SIP-III final, OSHA is submitting separate ICRs to OMB.

The NPRM proposed to remove provisions that require employers to transfer employee exposure-monitoring and medical records to NIOSH and for employers to contact NIOSH prior to disposing of such records. No comments were received opposing this revision; therefore, OSHA is removing §§ 1910.1029(m)(4)(ii) and (iii) and the associated burden hours and costs from this ICR.

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

The Agency will provide no payments or gifts to the respondents.

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

To ensure that the personal information contained in medical records remains confidential, OSHA developed 29 CFR 1913.10 to regulate its access to these records.

- 11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the 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 and aggregate the hour burdens.**
 - **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.**

Table 10

Summary of Burden Hours and Cost Estimates

Information Collection Requirements	Existing Burden Hours	Proposed Burden Hours	Change	Estimated Cost
(A) Exposure-monitoring and Measurement	0	0	0	0
1. Monitoring Program	42,240	42,240	0	\$1,368,998
2. Redetermination	528	528	0	\$17,112
3. Employee Notification	6	6	0	\$120
(B) Compliance Program	117	117	0	\$4,339
(C) Respiratory Protection	0	0	0	\$0
(D) Notification to Laundry Personnel	2	2	0	\$40
(E) Medical Surveillance	0	0	0	0
1. General	7,408	7,408	0	\$229,855
2. Information Provided to the Physician	355	355	0	\$7,111
3. Physician's Written Opinion	355	355	0	\$7,111
(F) Employee Information and Training	0	0	0	\$0
(G) Precautionary Signs and Labels	0	0	0	\$0
(H) Recordkeeping	0	0	0	0
1. Exposure Measurement	1,236	1,236	0	\$24,757
2. Medical Surveillance	355	355	0	\$7,111
3. Availability	96	96	0	\$1,942
4. Transfer of Records*	3	0	-3	\$0
TOTAL	52,701	52,698	-3	\$1,668,496

*Indicates removal of 29 CFR 1910.1029(m)(4)(ii) and (iii) requiring employers to comply with transferring worker exposure monitoring and medical surveillance records to the National institute for Occupational Safety and Health (NIOSH) or notifying NIOSH prior to disposal of such records.

Wage Rates

For the relevant occupational categories, mean hourly earnings from the *National Compensation Survey, Occupational Wages in the United States, June 2005, Department of Labor, Bureau of Labor*. To estimate updated wage rates, OSHA compared mean hourly wages rates for occupation categories from July 2003 and June 2005 National Compensation Surveys. The resulting 4.9% wage increase evidenced over this period was applied to those wages in the previous ICR to determine updated wage rates for each occupation. The hourly costs are: \$31.02 for employees, \$45.62 for professionals, \$39.42 for managers/supervisors, \$32.41 for industrial hygienists, and \$20.03 for clerical/secretarial workers.

Number of Employees

According to the 2002 Census, there were 118,847 total employees in NAICS 331111 (Iron and Steel Mills), of which 4,933 (4.2% of 118,847) were employed in facilities producing “coke oven and blast furnace products” (NAICS 331111). Further, of these 4,933 employees, an estimated 4,167 (84.5% of 4,933) were employed in production capacities.⁵ In 2005, there were a total of 107,474 workers employed in NAICS 331111.⁶ Applying the ratios from the 2002 Census, this suggests a current total workforce of 4,514 and production workforce of 3,814 employed in NAICS 331111.

Burden-Hour and Cost Determinations

The following sections summarize the methodology used for estimating the number of burden hours and cost resulting from the information collection requirements of the COE Standard.

(A) Exposure monitoring and Measurement (§ 1910.1029(e)(1))

1. Monitoring Program (§ 1910.1029(e)(1))

Employers must monitor employee exposure to COE in regulated areas. In doing so, they must collect full-shift (i.e., at least 7 continuous hours) personal samples, including at least 1 sample during each shift for each battery and each job classification listed in paragraph 1910.1029(e)(iii) of the Standard. Employers must repeat exposure-monitoring four times a year (once a quarter).

⁵Source: U.S. Census Bureau, 2002 Economic Census, Manufacturing Industry Series: Iron and Steel Mills: 2002 (EC02-311-331111 RV), issued December 2004.

⁶Source: U.S. Census Bureau, 2005 County Business Patterns Survey. NAICS 331111.

OSHA estimates that the 19 plants covered by the Standard have a total of 55 batteries;⁷ each battery operates three shifts daily with an average of 16 job classifications per shift; and an industrial hygienist on the plant staff, earning \$32.41 per hour, takes four hours to collect and analyze each exposure-monitoring sample using equipment and materials available at the plant.

Burden hours: 55 batteries x 16 job classifications/battery x 3 shifts x 4 samples/year x 4 hours/sample = 42,240 hours

Cost: 42,240 hours x \$32.41/hour = \$1,368,998

2. Redetermination (§ 1910.1029(e)(2))

Employers must perform additional monitoring if: A change occurs in COE-related production, processes, or controls that may result in new or additional exposure; or the employer has any reason to suspect an increase in employee exposure to COE. OSHA assumes that employers will conduct additional monitoring in 5% of the batteries once a year.

Burden hours: 55 batteries x .05 x 16 job classifications/battery x 3 shifts x 4 hours/sample = 528 hours

Cost: 528 hours x \$32.41/hour = \$17,112

3. Notification of Employees (§ 1910.1029(e)(3))

Employers must notify each employee of their exposure measurements within 15 days after receipt of the results either individually with a written copy of their results or by posting the result in an appropriate location that is accessible to the employee. OSHA assumes the 19 plants would prefer to post the employees' results in a readily accessible location. OSHA estimates that a secretary, earning \$20.03 per hour, will take would take 5 minutes (0.08 hour) to post the monitoring results.

Burden hours: 19 plants x 4 times per year x .08 hour = 6 hours

Cost: 6 hours x \$20.03 = \$120

(B) Compliance Program (§ 1910.1029 (f)(6))

Employers must establish and implement a written program to reduce employee exposures to or below the PEL using engineering or work-practice controls, and review these programs at least annually and revise them as needed if exposures remain above the PEL.

While OSHA believes there have been no new COE facilities over the past three years, the Agency will take burden hours for the newly identified coke COE facilities to prepare a compliance program. For purposes of calculating burden hours, OSHA assumes that each of the

⁷Sources: American Coke and Coal Chemicals Institute, *Operating U.S. Coke Plants*. Data as of April 24, 2006. [http://www.accci.org/Coke_Plant_Listing.pdf]. David C. Ailor, Director of Regulatory Affairs, American Coke and Coal Chemicals Institute. *Principal Environmental Issues Facing the U.S. Coke Industry in 2003*. Presented October 8, 2003 [<http://www.accci.org/Ailor.pdf>].

newly identified plants will have some employees exposed above PEL. OSHA estimates a professional would expend 8 hours and a clerical 4 hours to develop the compliance plans for a total of 12 hours per newly identified plant.

Burden hours: 5 newly identified plants x 12 hours = 60 hours
Cost: 5 x [(\$45.62 x 8) + (\$20.03 x 4)] = \$2,225

The Agency assumes, however, that each of the 19 plants covered by the Standard has some employees exposed above the PEL, and that these employers must review and revise their compliance programs annually. OSHA estimates that a professional, at a wage rate of \$45.62 per hour, can update a plan in 2 hours, and that a secretary, at a wage rate of \$20.03 per hour, will spend 1 hour typing and proof-reading a plan.

Burden hours: 19 plants x 1 (annually) x 3 hours = 57 hours
Cost: 19 plants x 1 (annually) x ((2 professional hours x \$45.62) + (1 secretary \$20.03 hour)) = \$2,114

(C) Respiratory Protection (§ 1910.1029(g))

The Standard requires employers to implement a respiratory-protection program in accordance with the provisions of OSHA's Respiratory Protection Standard (29 CFR 1910.134). The burden for this requirement is taken under the ICR for the Respiratory Protection Standard, OMB Control Number 1218-0099.

(D) Notification of Laundry personnel (§ 1910.1029 (h)(2)(vi))

Employers must notify laundry personnel who clean or launder protective clothing of the potential hazards of COE exposure. OSHA assumes that each employer (or plant) would provide this notification in writing once a year, and that a secretary (at a wage rate of \$20.03 per hour) would take 5 minutes (.08 hour) to type and deliver the notice.

Burden hours: 19 employers x 1 notification/year x .08 hour = 2 hours
Cost: 2 hours x \$20.03 = \$40

(E) Medical Surveillance (§ 1910.1029(j))

1. General (§ 1910.1029(j)(1), (j)(2), and (j)(3))

Paragraph (j)(1)(ii) requires that the employer inform any employee who refuses any medical examination of possible health consequences of such refusal and obtain a signed statement from the employee indicating that the employee understands the risk involved in the refusal to be examined.

OSHA estimates there are 3,814 covered employees⁸ that may receive medical examinations.

⁸Covered employees are employees who are employed in a regulated area at least 30 days per year.

Assuming an annual separation rate of 33.2%, OSHA estimates a total of 1,266 new employees would be offered the option of receiving medical surveillance. For purposes of calculating burden hours and costs, the Agency believes no more than 1% would refuse to participate in COE medical surveillance program. OSHA estimates it would take a supervisor 30 minutes (.5 hour) to explain the possible medical consequences of an employee not participating, and to obtain the employees signed statement that they understand the consequences of not participating in the medical surveillance program.

Burden hours: 13 non-participants x .5 hour = 7 hours
Cost: 7 hours x \$39.42 = \$276

All covered employees receive annual, examinations as specified in paragraphs (j)(2)(i) – (vi). For employees 45 years of age or older, or for employees with 5 or more years employment in a regulated areas, they receive an additional urinary cytology examination ((j)(2)(vii)). The additional time for this test is negligible. Given the previous assumption that 13 employees may not choose to participate in the medical surveillance program, the Agency estimates 3,801 employees will receive annual medical examinations.

Also OSHA estimates that 16.6% of the 3,801 covered employees (631) will require additional medical examinations. These examinations are administered if an employee has not had an examination within six months. The total number of medical examinations is 4,432.

The burden hours for medical examinations represents the time an employee is away from the job. For the examinations administered under this Standard, the Agency estimates that an employee (at a wage rate of \$31.02 per hour) will be away from the job 1 hour and 40 minutes (1.67 hours).

Burden hours: 4,432 employees x 1.67 hour = 7,401 hours
Cost: 7,401 hours x \$31.02 = \$229,579

2. Information Provided to the Physician (§ 1910.1029(j)(4))

Employers must provide the examining physician with specific information on each employee who receives a medical examination. The Agency assumes that, for each medical examination administered to a covered employee, it takes a secretary (at a wage rate of \$20.03 per hour) 5 minutes (.08 hour) to compile the required information and deliver it to the physician. Based on

the analysis performed under "General" above, this Standard requires that 4,432 medical examinations.

Burden hours: 4,432 examinations x .08 hour = 355 hours

Cost: 355 hours x \$20.03 = \$7,111

3. Physician's Written Opinion (§ 1910.1029(j)(5))

Employers must provide a copy of the physician's written opinion to each employee who receives a medical examination. OSHA assumes that a secretary earning \$20.03 an hour will take 5 minutes (.08 hour) to deliver a copy of the physician's written opinion to each covered employee.

Based on the analysis performed under "Information Provided to the Physician" above, 4,432 medical examinations will be administered each year, resulting in the same number of opinions that must be delivered to covered employees.

Burden hours: 4,432 examinations x .08 hour = 355 hours

Cost: 355 hours x \$20.03 = \$7,111

(F) Employee Information and Training (§ 1910.1029(k))

The Standard's training requirements are performance-oriented; therefore, no burden hours are incurred from this provision.

(G) Precautionary Signs and Labels (§ 1910.1029(l))

The Standard requires employers to post warning signs in regulated areas. In addition, employers must apply warning labels to all containers housing COE-contaminated protective. The Standard provides specific language for the required signs and labels; therefore no burden has been taken for this provision because OSHA is providing the required information. (See the final rule entitled "Controlling Paperwork Burden on the Public," 5 CFR 1320.3(c)(2)).

(H) Recordkeeping (§ 1910.1029 (m))

1. Exposure Measurement (§ 1910.1029 (m)(1))

Employers must establish and maintain accurate records of all exposure-monitoring measurements taken to determine employee exposure to COE. If each of 3,814 covered employees receives 4 periodic exposure-monitoring records each year (3,814 employees x 4 measurements/year = 15,256 records), and 5% of these employees receive 1 redetermination each year (3,814 employees x 5% x 1 measurement/year = 190 records), the total number of records generated each year is 15,446 records. OSHA estimates that a secretary, at a wage rate of \$20.03 per hour, will take 5 minutes (.08 hour) to establish, update, and maintain each of these records.

Burden hours: 15,446 records x .08 hour = 1,236 hours

Cost: 1,236 hours x \$20.03 = \$24,757

2. Medical Surveillance (§ 1910.1029(m)(2))

As noted in the analysis conducted under “Information provided to the Physician” above, each year covered employees receive 4,432 medical examinations, resulting in the same number of medical records. OSHA estimates that a secretary, at a wage rate of \$20.03 per hour, would spend 5 minutes (.08 hour) establishing, updating, and maintaining each of these records.

Burden hours: 4,432 examinations x .08 hour = 355 hours

Cost: 355 hours x \$20.03 = \$7,111

3. Availability (§ 1910.1029(m)(3) and § 1910.1029(k)(2))

Employers must provide, on request, all records required by the Standard to OSHA compliance officers and NIOSH for examination and copying. In addition, employers must provide employee medical and exposure-monitoring records to employees and employee representatives on request. Training materials must also be made available to employees employed in the regulated areas, OSHA, and NIOSH.

The Agency estimates that its compliance officers make a request for COE-related records during 1 plant inspection annually,⁹ and that a manager, at a wage rate of \$39.42 per hour, will spend 5 minutes (.08 hour) informing an OSHA compliance officer of the location of requested records during that inspection. In addition, the Agency assumes that 10% of the covered employees (3,814 employees x 10% = 381 employees), which includes their designated representatives, will request access to medical, exposure-monitoring, or training materials each year. OSHA estimates that it will take a secretary (at a wage rate \$20.03 per hour) 15 minutes (.25 hour) to make the records available to these employees.

Burden hours: (1 inspection x .08 hour)¹⁰ + (381 employees x .25 hour) = 96 hours

Cost: (1 hour x \$39.42) + (95 hours x \$20.03) = \$1,942

⁹OSHA estimated the number of inspections by determining the inspection rate (1.4%) for all facilities under the jurisdiction of the OSH Act (including both Federal OSHA and approved state-plan agencies), and then multiplied the total number of plants regulated by the COE Standard (14) by this percentage (i.e., .014 x 42 = .20 inspections (rounded to 1)).

¹⁰Rounded to 1 hour.

4. Transfer of Records (1910.1029(m)(4))

If an employer ceases to do business and no successor employer is available to retain the records for the periods specified by the Standard, the employer must transfer these records to NIOSH. Other employers, before disposing of these records at the end of the specified retention periods, must notify NIOSH of the impending disposal, and transfer the records to NIOSH if it requests the records within 3 months of being so notified.

NIOSH did not receive any COE-related exposure monitoring or medical records during the last 3 years. To account for future transfers, however, OSHA assumes that employers covered by the Standard will transfer 3 sets of records to NIOSH, and that a secretary, earning \$20.03 per hour, will spend 1 hour preparing and sending each set of records for the employers.

Burden hours: 3 sets of records x 1 hour = 3 hours
—**Cost:** 3 hours x \$20.02 = \$60

13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14).
- The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.
 - If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.
 - Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.

Medical Surveillance

Based on the analysis performed in the Medical Surveillance "General" above, OSHA estimates 4,432 medical examinations will be performed. Each medical examination would include the

following: basic medical examination costing \$130 dollars; which includes the urinary cytology and one x-ray costing \$54.40. The total cost per examination is \$184.40.

Cost: 4,432 medical examinations x \$184 = \$815,488

14. **Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 in a single table.**

Federal Access to Records

Based on the analysis performed under "Availability" above, OSHA determined that employers covered by the COE Standard receive 1 inspection each year. OSHA estimates that a compliance officer (GS-12/5), with an hourly wage rate of \$34.15, spends 5 minutes (.08 hour) reviewing COE-related information during an inspection. Other occupational expenses, such as equipment, overhead, and support-staff expenses, would occur without these collections of information requirements, and OSHA considers these to be normal operating expenses.

Burden hours: 1 inspection x .08 hour = 1 hour

Cost: 1 hour x \$34.15 = \$34

Transfer of Records to NIOSH

~~If an employer ceases to do business and no successor employer is available to retain the records for the periods specified by the Standard, the employer must transfer these records to NIOSH. Other employers, before disposing of these records at the end of the specified retention periods, must notify NIOSH of the impending disposal, and transfer the records to NIOSH if it requests the records within 3 months of being so notified.~~

~~The cost of this provision to the Federal government consists of NIOSH processing records received from employers who: Cease to do business and have no successor to retain the required records; and notify NIOSH at the end of the specified retention periods that they are going to dispose of the records and NIOSH requests the records. However, NIOSH did not receive any COE-related exposure monitoring or medical records during the last 3 years. To account for future transfers (i.e., during this clearance period), OSHA assumes that NIOSH will receive 3 sets of records from all employers covered by the Standard, and that a NIOSH secretary (GS-7/5, at a wage rate of \$19.26¹¹ per hour) will take 5 minutes (.08 hour) to process each record.~~

~~**Burden hours:** 3 records x .08 hours = 1 hour~~

~~**Cost:** 1 hour x .08 hour x \$19.26 = \$2~~

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

¹¹Source: Office of Personnel Management, Salary Table 2005- Cincinnati, (http://www.opm.gov/oca/05tables/html/cin_h.asp),

OSHA removed the requirement that employers who cease to do business or those with records with expired retention periods, transfer these records to the National Institute for Occupational Safety and Health (specified in paragraphs 29 CFR 1910.1029(m)(4)(ii) and (iii), under the Standards Improvement Project-Phase III rule. As a result of this rulemaking, the Agency requests a program change reduction of three hours.

16. **For collections of information whose results will be published, outline plans for tabulation, and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

The information collected under the COE Standard will not be published.

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

There are no forms associated with this collection of information on which to display an expiration date.

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 collection of information requirements employing statistical methods.