

**SUPPORTING STATEMENT FOR THE  
INFORMATION COLLECTION REQUIREMENTS IN  
THE COTTON DUST STANDARD (29 CFR 1910.1043)<sup>1</sup>  
OFFICE OF MANAGEMENT AND BUDGET (OMB)  
CONTROL NO. 1218-0061 (July 2021)**

This ICR is requesting the extension of a currently approved data collection.

**A. JUSTIFICATION**

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

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

The Act specifically authorizes the Occupational Safety and Health Administration (“OSHA” or “Agency”) to issue standards that “prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure” (29 U.S.C. 655). In addition, the OSH Act mandates that “[e]ach employer shall make, keep and preserve, and make available to the Secretary . . . such records . . . as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of this Act . . .” (29 U.S.C. 657).

To protect employee health, the OSH Act authorizes the Agency to develop standards that provide for “monitoring or measuring employee exposure” to occupational hazards and “prescribe the type and frequency of medical examinations and other tests which shall be made available [by the employer] to employees exposed to such hazards . . . to most effectively determine whether the health of such employees is adversely affected by such exposure” (29 U.S.C. 655). Moreover, the Act directs the Agency to issue regulations requiring employers to

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

maintain accurate records of employee exposures to potentially toxic materials or other harmful physical agents which are required to be monitored and measured . . ." (29 U.S.C. 657). In addition, the OSH Act mandates that "[e]ach employer shall make, keep and preserve, and make available to the Secretary [of Labor] . . . such records regarding [his/her] activities relating this Act as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of this Act . . ." (29 U.S.C. 657). Under the authority granted by the OSH Act, the Agency promulgated its Cotton Dust Standard at 29 CFR 1910.1043 (the "Standard"). OSHA issued the Standard after determining that occupational exposure to cotton dust poses a health risk to employees. This determination showed that cotton-dust exposure results in an increased risk of developing pulmonary diseases especially byssinosis that may result in disability and premature death.

**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.**

**A. Exposure monitoring (§1910.1043(d))**

*Alternative to the vertical elutriator cotton dust sampler §1910.1043(d)(1)(iii)* - If an alternative to the vertical elutriator cotton dust sampler is used, the employer shall establish equivalency by reference to an OSHA opinion or by documenting, based on data developed by the employer or supplied by the manufacturer, that the alternative sampling devices meets the following criteria:

§1910.1043(d)(1)(iii)(A) - It collects respirable particulates in the same range as the vertical elutriator (approximately 15 microns);

§1910.1043(d)(1)(iii)(B) - Replicate exposure data used to establish equivalency are collected in side-by-side field and laboratory comparisons; and

§1910.1043(d)(1)(iii)(C) - A minimum of 100 samples over the range of 0.5 to 2 times the permissible exposure limit are collected, and 90% of these samples have an accuracy range of plus or minus 25 percent of the vertical elutriator reading with a 95% confidence level as demonstrated by a statistically valid protocol. (An acceptable protocol for demonstrating equivalency is described in Appendix E of this section.)<sup>2</sup>

**Purpose:** Obtaining an OSHA opinion or developing documentation to meet the specified criteria provides assurance to employees that the alternative sampler used by an employer is as accurate in collecting cotton dust samples as the vertical elutriator.

*Initial monitoring §1910.1043(d)(2)* - Each employer who has a place of employment within the scope of paragraph (a)(1), (a)(4), or (a)(5) of this section shall conduct monitoring by obtaining

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<sup>2</sup> §1910.1043 Appendix E is available at <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1043AppE>.

measurements which are representative of the exposure of all employees to airborne concentrations of lint-free respirable cotton dust over an eight-hour period. The sampling program shall include at least one determination during each shift for each work area.

**Purpose:** Such monitoring allows employers to identify areas and operations that may require additional reduction in airborne cotton dust to meet the permissible exposure limit (PEL).<sup>3</sup> Initial 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 to cotton dust.

*Periodic monitoring §1910.1043 (d)(3)(i)* - If the initial monitoring required by paragraph (d)(2) of this section or any subsequent monitoring reveals employee exposure to be at or below the permissible exposure limit, the employer shall repeat the monitoring for those employees at least annually.

*§1910.1043(d)(3)(ii)* - If the initial monitoring required by paragraph (d)(2) of this section or any subsequent monitoring reveals employee exposure to be above the PEL, the employer shall repeat the monitoring for those employees at least every six months.

**Purpose:** Periodic monitoring allows employers to determine if minor changes in processes, materials, or environmental conditions result in increased concentrations of airborne cotton dust. If so, periodic monitoring also enables employers to 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 to cotton dust.

*§1910.1043(d)(3)(iii)* - Whenever there has been a production, process, or control change which may result in new or additional exposure to cotton dust, or whenever the employer has any other reason to suspect an increase in employee exposure, the employer shall repeat the monitoring and measurements for those employees affected by the change or increase.

**Purpose:** Additional monitoring ensures that the workplace is safe, or alerts to the need for increased control of airborne cotton dust.

***Employee notification (§1910.1043(d)(4))***

*§1910.1043(d)(4)(i)* - The employer must, within 15 working days after the receipt of the results of any monitoring performed under this section, notify each affected employee of these results either individually, in writing, or by posting the results in an appropriate location that is accessible to employees.

*§1910.1043(d)(4)(ii)* - Whenever the results indicate that the employee's exposure exceeds the applicable permissible exposure limit specified in paragraph (c) of this section, the employer

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<sup>3</sup> The PEL differs according to the type of cotton dust involved; see paragraph (c)(1) of the Standard.

shall include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action taken to reduce exposure below the permissible exposure limit.

**Purpose:** Written notices provide assurance that employees are informed about exposure data, and gives employees specific information about the efforts the employer is taking to lower their exposures and furnish them with a safe and healthful workplace in accordance with section 8(c) (3) of the Act.

## **B. Methods of compliance (§1910.1043(e))**

*Compliance program §1910.1043(e)(3)(i)* - Where the most recent exposure monitoring data indicates that any employee is exposed to cotton dust levels greater than the permissible exposure limit, the employer shall establish and implement a written program sufficient to reduce exposures to or below the permissible exposure limit solely by means of engineering controls and work practices as required by paragraph (e)(1) of this section.

*§1910.1043(e)(3)(ii)* - The written program shall include at least the following:

§1910.1043(e)(3)(ii)(A) - A description of each operation or process resulting in employee exposure to cotton dust at levels greater than the PEL;

§1910.1043(e)(3)(ii)(B) - Engineering plans and other studies used to determine the controls for each process;

§1910.1043(e)(3)(ii)(C) - A report of the technology considered in meeting the permissible exposure limit;

§1910.1043(e)(3)(ii)(D) - Monitoring data obtained in accordance with paragraph (d) of this section;

§1910.1043(e)(3)(ii)(E) - A detailed schedule for development and implementation of engineering and work practice controls, including exposure levels projected to be achieved by such controls;

§1910.1043(e)(3)(ii)(F) - Work practice program; and

§1910.1043(e)(3)(ii)(G) - Other relevant information.

*§1910.1043(e)(3)(v)* - Written programs shall be submitted, upon request, to the Assistant Secretary and the Director of the National Institute for Occupational Safety and Health (NIOSH) (the Director), and shall be available at the worksite for examination and copying by the Assistant Secretary, the Director, and any affected employee or their designated representatives.

*§1910.1043(e)(3)(vi)* - The written program required under paragraph (e)(3) of this section shall be revised and updated when necessary to reflect the current status of the program and current exposure levels.

**Purpose:** This requirement commits the employer to evaluating employee exposure and establishing an organized and complete program for reducing employee exposures to or below the PEL. Revising and updating the written program serves to remind employers to implement and maintain the exposure control methods required by the Standard.

Providing the written programs to OSHA compliance officers ensures that employers are in compliance with the Standard, while NIOSH may use the information for research purposes. However, OSHA has determined that the requirement for employers to make information available upon request to the Assistant Secretary is not a collection of information; OSHA typically requests access to information during an inspection, and information collected by the Agency during the investigation is not subject to the PRA under 5 CFR 1320.4(a)(2). Additionally, OSHA does not anticipate that NIOSH will request employers to make this information available during the approval period. Therefore, the burden for the employer to make this information available to NIOSH is zero.

Employees and their designated representatives review the written programs to determine if the programs validly represent current exposure conditions, and if employers are taking appropriate actions to control cotton-dust exposures.

### **C. Respirator protection (§1910.1043(f))**

*Respirator program (§1910.1043(f)(2)(i)<sup>4</sup>* - The employer must implement a respiratory protection program in accordance with 29 CFR 1910.134 (b) through (d) (except (d)(1)(iii)), and (f) through (m), which covers each employee required by this section to use a respirator.

**Purpose:** The purpose of these requirements is to ensure that employers establish a standardized procedure for selecting, using, and maintaining respirators for each workplace requiring respirator use. Developing written procedures ensures that employers implement a respirator program that meets the needs of their workers.

### **D. Work practices (§1910.1043(g))**

*§1910.1043(g)* - Each employer shall, regardless of the level of employee exposure, immediately establish and implement a written program of work practices which shall minimize cotton dust exposure. The following shall be included w[h]ere applicable:

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<sup>4</sup> OSHA accounts for the burden hours and costs resulting from the respiratory-protection requirements under the Information Collection Request (ICR) for its Respiratory Protection Standard (§1910.134), OMB Control No. 1218-0099.

*§1910.1043(g)(1)* - Compressed air "blow down" cleaning shall be prohibited where alternative means are feasible. Where compressed air is used for cleaning, the employees performing the "blow down" or "blow off" shall wear suitable respirators. Employees whose presence is not required to perform "blow down" or "blow off" shall be required to leave the area affected by the "blow down" or "blow off" during this cleaning operation.

*§1910.1043(g)(2)* - Cleaning of clothing or floors with compressed air shall be prohibited.

*§1910.1043(g)(3)* - Floor sweeping shall be performed with a vacuum or with methods designed to minimize dispersal of dust.

*§1910.1043(g)(4)* - In areas where employees are exposed to concentrations of cotton dust greater than the permissible exposure limit, cotton and cotton waste shall be stacked, sorted, baled, dumped, removed or otherwise handled by mechanical means, except where the employer can show that it is infeasible to do so. Where infeasible, the method used for handling cotton and cotton waste shall be the method which reduces exposure to the lowest level feasible.

**Purpose:** Having the programs in writing, employees have available to them the detailed work-practice procedures necessary to prevent unnecessary or excessive exposure to cotton dust.

#### **E. Medical surveillance (§1910.1043(h))**

***General §1910.1043(h)(1)(i)*** - Each employer covered by the standard shall institute a program of medical surveillance for all employees exposed to cotton dust.

*§1910.1043(h)(1)(ii)* - The employer shall assure that all medical examinations and procedures are performed by or under the supervision of a licensed physician and are provided without cost to the employee.

***Initial examinations §1910.1043(h)(2)*** - The employer shall provide medical surveillance to each employee who is or may be exposed to cotton dust. For new employees, this examination shall be provided prior to initial assignment. The medical surveillance shall include at least the following:

*§1910.1043(h)(2)(i)* - A medical history;

*§1910.1043(h)(2)(ii)* - The standardized questionnaire contained in Appendix B; and

*§1910.1043(h)(2)(iii)* - A pulmonary function measurement, including a determination of forced vital capacity (FVC) and forced expiratory volume in one second (FEV1), the FEV(1)/FVC ratio, and the percentage that the measured values of FEV(1) and FVC differ from the predicted values, using the standard tables in Appendix C. These determinations shall be made for each employee before the employee enters the workplace on the first day of the work week, preceded by at least 35 hours of no exposure to cotton dust. The tests shall be repeated during the shift, no less than 4 and no more than 10 hours after the beginning of the work shift; and, in any event, no

more than one hour after cessation of exposure. Such exposure shall be typical of the employee's usual workplace exposure. The predicted FEV(1) and FVC for blacks shall be multiplied by 0.85 to adjust for ethnic differences.

***Periodic examinations §1910.1043(h)(3)***

Under these provisions, employers are to implement a medical surveillance program for every employee exposed to cotton dust. Accordingly, employers must provide new employees involved in textile and non-textile operations with an initial medical examination prior to their job assignment if such an assignment exposes the employees to cotton dust. Employers involved in textile operations must provide an annual medical examination for employees exposed to cotton dust above the action level (AL), or a medical examination once every two years for employees exposed to cotton dust at or below the AL and to specific types of washed cotton (regardless of their exposure level). Employers involved in non-textile operations also are to provide their employees with a medical examination once every two years. Under some conditions (e.g., specific reductions in pulmonary-function parameters as compared to the LLN, in the opinion of the physician), employees must receive a medical examination every six months.

**Purpose:** Documentation and maintenance of the medical examination results provide a continuous record of employee health. Physicians use these records to determine the extent to which employees, since their last examination, experience health effects related to their cotton-dust exposure. Further, if symptoms of physical 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.

***Information provided to the physician (§1910.1043(h)(4))***

§1910.1043(h)(4) - Information provided to the physician. The employer shall provide the following information to the examination physician:

§1910.1043(h)(4)(i) - A copy of this regulation and its Appendices:

§1910.1043(h)(4)(ii) - A description of the affected employee's duties as they relate to the employee's exposure;

§1910.1043(h)(4)(iii) - The employee's exposure level or anticipated exposure level;

§1910.1043(h)(4)(iv) - A description of any personal protective equipment used or to be used; and

*§1910.1043(h)(4)(v)* - Information from previous medical examinations of the affected employee which is not readily available to the examining physician.

**Purpose:** Making this information available to physicians assists them in evaluating the employee's health and fitness for specific job assignments involving cotton-dust exposure. As noted earlier, if symptoms of physical damage appear, the physician often needs information about an employee's previous medical conditions to make an accurate diagnosis of the new condition, its apparent cause, and the course of treatment required.

***Physician's written opinion (§1910.1043(h)(5))***

*§1910.1043(h)(5)(i)* - The employer shall obtain and furnish the employee with a copy of a written opinion from the examining physician containing the following:

*§1910.1043(h)(5)(i)(A)* - The results of the medical examination and tests including the FEV(1), FVC, AND FEV(1)/FVC ratio;

*§1910.1043(h)(5)(i)(B)* - The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from exposure to cotton dust;

*§1910.1043(h)(5)(i)(C)* - The physician's recommended limitations upon the employee's exposure to cotton dust or upon the employee's use of respirators including a determination of whether an employee can wear a negative pressure respirator, and where the employee cannot, a determination of the employee's ability to wear a powered air purifying respirator; and,

*§1910.1043(h)(5)(i)(D)* - A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

*§1910.1043(h)(5)(ii)* - The written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to occupational exposure.

**Purpose:** The purpose of requiring the employer to obtain a written opinion from the examining physician is to provide the employer with medical information to aid in determining the initial placement of an employee, and to assess the employee's ability to use protective clothing and equipment. The physician's opinion also provides information to the employer about whether or not the employee has a condition indicating overexposure to cotton dust. The requirement that the physician's opinion be in writing ensures that the information is properly documented for later reference. Providing employees with a copy of the physician's written opinion informs them of the medical examination results so that they can assist in determining the need for, and evaluate the effectiveness of, treatment or other interventions.



**F. Employee education and training (§1910.1043(i) and (ii))** Upon further analysis, the requirements that employers provide training to workers under paragraphs 1910.1043(i)(1)(i) and (ii) are not considered to be collections of information. OSHA is not taking burden for these activities under Item 12 of this Supporting Statement.

***Access to training materials §1910.1043(i)(2)***

§1910.1043(i)(2)(i) - Each employer shall post a copy of this section with its appendices in a public location at the workplace, and shall, upon request, make copies available to employees.

§1910.1043(i)(2)(ii) - The employer shall provide all materials relating to the employee training and information program to the Assistant Secretary and the Director upon request.

Note: OSHA has determined that the requirement for employers to make information available upon request to the Assistant Secretary is not a collection of information; OSHA typically requests access to information during an inspection, and information collected by the Agency during the investigation is not subject to the PRA under 5 CFR 1320.4(a)(2). While NIOSH may use information collected from employers for research purposes, the Agency does not anticipate that NIOSH will request employers to make available information during the approval period. Therefore, the burden for the employer to make this information available to NIOSH is zero.

**G. Signs (§1910.1043(j))**

The employer shall post the following warning sign in each work area where the permissible exposure limit for cotton dust is exceeded:

DANGER  
COTTON DUST  
CAUSES DAMAGE TO LUNGS  
(BYSSINOSIS)  
WEAR RESPIRATORY PROTECTION IN THIS AREA

**Purpose:** These signs serve to warn employees that they are in or near a hazardous area. Warning signs also supplement the training employees receive under the Standard.

**H. Recordkeeping (§1910.1043(k))**

***Exposure measurements §1910.1043(k)(1)***

§1910.1043(k)(1)(i) - The employer shall establish and maintain an accurate record of all measurements required by paragraph (d) of this section.

§1910.1043(k)(1)(ii) - The record shall include:

§1910.1043(k)(1)(ii)(A)<sup>5</sup> - A log containing the items listed in paragraph IV (a) of Appendix A, and the dates, number, duration, and results of each of the samples taken, including a description of the procedure used to determine representative employee exposure;

§1910.1043(k)(1)(ii)(B) - The type of protective devices worn, if any, and length of time worn; and

§1910.1043(k)(1)(ii)(C) - The names, job classifications, and exposure levels of employees whose exposure the measurement is intended to represent.

§1910.1043(k)(1)(iii) - The employer shall maintain this record for at least 20 years.

***Medical surveillance §1910.1043(k)(2)***

§1910.1043(k)(2)(i) - The employer shall establish and maintain an accurate medical record for each employee subject to medical surveillance required by paragraph (h) of this section.

§1910.1043(k)(2)(ii) - The record shall include:

§1910.1043(k)(2)(ii)(A) - The name and description of the duties of the employee;

§1910.1043(k)(2)(ii)(B) - A copy of the medical examination results including the medical history, questionnaire response, results of all tests, and the physician's recommendation;

§1910.1043(k)(2)(ii)(C) - A copy of the physician's written opinion;

§1910.1043(k)(2)(ii)(D) - Any employee medical complaints related to exposure to cotton dust;

§1910.1043(k)(2)(ii)(E) - A copy of this standard and its appendices, except that the employer may keep one copy of the standard and the appendices for all employees, provided that he references the standard and appendices in the medical surveillance record of each employee; and

§1910.1043(k)(2)(ii)(F) - A copy of the information provided to the physician as required by paragraph (h)(4) of this section.

§1910.1043(k)(2)(iii) - The employer shall maintain this record for at least 20 years.

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<sup>5</sup> An employer may instead retain a copy of the Standard and its appendices and make this material available to the employee if the employer references the Standard and its appendices in the record maintained for each employee.

**Purpose:** This requirement provides both employers and employees with access to useful information. The exposure monitoring and medical surveillance records required by the Standard assist employees and their physicians in determining the need for treatment or other interventions as a result of the employees' exposure to cotton dust. The information also alerts employers when employee overexposure to cotton dust occurs, thereby enabling employers to take steps required to reduce cotton-dust exposures. Maintaining the records for a 20 year period is necessary because of the long latency associated with the development of pulmonary diseases caused by exposure to cotton dust.

**Availability (§1910.1043(k)(3))**

§1910.1043(k)(3)(i) - The employer shall make all records required to be maintained by paragraph (k) of this section available to the Assistant Secretary and the Director for examination and copying.<sup>6</sup>

§1910.1043(k)(3)(ii) - Employee exposure measurement records and employee medical records required by this paragraph shall be provided upon request to employees, designated representatives, and the Assistant Secretary in accordance with 29 CFR 1910.1020(a) through (e) and (g) through (i).

**Purpose:** The OSHA compliance officer uses these records to assess employer compliance with the major exposure monitoring and medical surveillance requirements of the Standard, while NIOSH may compile these records for research purposes. Employees and their designated representatives use exposure monitoring and medical surveillance records to assess an employee's medical status over the course of employment, to evaluate the effectiveness of the employer's exposure reduction program, and for other reasons.

Paragraph (h) of §1910.1020 requires employers who cease to do business to transfer medical and exposure-monitoring records to the successor employer, who then must receive and maintain the records. If no successor employer is available, the employer must, at least three months before ceasing business, notify current workers who have records of their right to access these records.

OSHA considers the employer's transfer of records to a successor employer to be usual and customary communications during the transition from one employer to a successor employer. In this regard, the employer would communicate the location of all records, including employee

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<sup>6</sup>The Agency has determined that the requirement for employers to make records available upon request to the Assistant Secretary is no longer considered a collection of information. OSHA typically requests access to records during an inspection, and information collected by the Agency during the investigation is not subject to the PRA under 5 CFR 1320.4(a)(2). While NIOSH may use records collected from employers for research purposes, the Agency does not anticipate that NIOSH will request employers to make available records during the approval period.

exposure-monitoring and medical records, at the facility to the successor employer during the transfer of business operations, as a matter of usual and customary business practice.

In addition, OSHA accounts for the burden hours and costs resulting from the employee notification requirements under the Information Collection Request (ICR) for its Access to Employee Exposure and Medical Records Standard (§1910.1020), OMB Control No. 1218-0065.

**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, including electronic recording, when establishing or maintaining records. OSHA wrote the paperwork requirements of the Standard 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 Agency believes that the information collection frequencies required by the Standard are the minimum frequencies necessary to effectively monitor the exposure and health status of workers exposed to cotton dust, and; thereby, fulfill its mandate “to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources” as specified by the OSH Act at 29 U.S.C. 651. Accordingly, if employers do not perform the required information collections, or delay in providing this information, workers will have an increased probability of developing serious or fatal pulmonary disease because of their cotton-dust exposures.

**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 (d)(4) requires that the employer notify each worker in writing of exposure monitoring results within 15 working days after receiving these results. The 15 working day period is a reasonable time for notification in general industry with its more stable workforce and is the time frame OSHA adopted in most of its health standards for general industry. In addition, paragraph (k)(1) and (k)(2) require exposure-measurement and medical surveillance records to be maintained for at least 20 years. Maintaining the records for a 20-year period is necessary because of the long latency associated with the development of pulmonary diseases caused by exposure to cotton dust.

**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.**

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3506)(c)(2)(A)), OSHA published a notice in the Federal Register on April 27, 2021 (86 FR 22277) soliciting public comments on its proposal to extend the Office of Management and Budget's (OMB) approval of the information collection requirement specified by the Standard on Cotton Dust (29 CFR 1910.1043) (Docket No. OSHA-2011-0194). This notice was part of a preclearance consultation program that provided interested parties the opportunity to comment on OSHA's request for an extension by the Office of Management and Budget of a previous approval of the information collection requirement found above. The agency did not receive any comments in response to this notice.

**9. Explain any decision to provide any payments or gifts 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.**

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

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

Perceived questions of a sensitive nature may be included in medical questionnaires. Information from medical questionnaires is necessary for the Physician or other licensed health care

professional (PLHCP) or employer, to determine what protections an employer must take to ensure that the employee will have minimal occupational exposure to hazards such as, insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors, and sprays.

**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 13.**

**Respondent Burden Hour and Cost Burden Determinations**

To estimate the number of establishments in textile operations that process cotton, the Agency updated the Standard Industrial Classification (SIC) industry codes discussed in previous ICRs to reflect the North American Industrial Classification System (NAICS) codes using the U.S. Census Bureau's *Bridge between SIC and NAICS*.<sup>7</sup> In many cases, the SIC industry sectors described in the previous ICR comprised only a portion of a given NAICS industry as a whole; the *Bridge* describes each NAICS industry and the SICs or partial SICs of which they are comprised. To determine the number of establishments in each industry sector, it was necessary to first determine which percentage of establishments in the overall NAICS industry was comprised by a given SIC industry sector. This ratio was then applied to the current industry establishments and employment statistics as listed in the 2018 County Business Patterns Survey.<sup>8</sup>

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<sup>7</sup>*Bridge between SIC and NAICS* (U.S. Census Bureau, North American Industry Classification System-Concordances  
<https://www.census.gov/eos/www/naics/concordances/concordances.html>).

<sup>8</sup>U.S. Census Bureau, 2018 County Business Patterns.  
<https://www.census.gov/data/datasets/2018/econ/cbp/2018-cbp.html>.

The Agency has retained assumptions from previous ICRs regarding the percentage of establishments processing cotton and also the percentage of workers exposed to cotton dust.<sup>9, 10</sup> Tables 2 and 3 below present data for establishments that have textile operations that process cotton, and for exposed workers involved in operations that process cotton, respectively.

Non-textile operations principally involve the cottonseed processing and cotton-waste recycling industries; only the paperwork requirements specified for medical surveillance under paragraph (h) of the Standard apply to these industries. Previously, the Agency consulted with the National

Cottonseed Products Association (NCPA) and the Secondary Materials and Recycled Textiles Association (SMART) to update employment estimates for these industries. Since neither organization was able to provide updated estimates, the Agency estimates that there are roughly 152 workers performing cottonseed processing.<sup>11</sup> The Agency also assumes that the cotton-waste recycling industry contains an estimated production workforce of 610<sup>12</sup> workers. For both industries, the Agency assumes an annual employee turnover rate of 29%.<sup>13</sup>

The Agency determined the wage rate from mean hourly wage earnings to represent the cost of employee time. For the relevant standard occupational classification category, OSHA used the

<sup>9</sup>Source: Centaur Associates, Inc. (CAI), *Technical and Economic Analysis of Regulating Occupational Exposure to Cotton Dust*, Vol. I, Exhibit 2-2, January 1983. CAI prepared this report for the 1983 Regulatory Impact Analysis performed during a revision to the Standard.

<sup>10</sup>For previous revisions to this ICR, the Agency contacted the Agricultural Research Service and the National Cotton Council in order to update the estimated number of establishments and workers in textile operations; however, neither organization was able to provide updated estimates.

<sup>11</sup>Source: U.S. Census Bureau, 2018 County Business Patterns Survey: NAICS 314999 – All Other Miscellaneous Textile Product Mills. The previous ICR estimated that in 2015 there were 176 production employees in the cottonseed processing industry. From 2015 to 2018, employment in NAICS 314999 decreased by roughly 13.9%; thus, it was assumed that employment in the cottonseed processing industry also decreased by 13.9%.

<sup>12</sup>Source: U.S. Census Bureau, 2018 County Business Patterns Survey: NAICS 314999 – All Other Miscellaneous Textile Product Mills. The ICR update that concluded in 2019 ([https://www.reginfo.gov/public/do/PRAViewDocument?ref\\_nbr=201809-1218-002](https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201809-1218-002)) estimated that in 2015 there was an estimated 709 production employees in the cotton-waste recycling industry; It was assumed that employment in the cotton waste recycling decreased approximately 13.9%.

<sup>13</sup>Source: U.S. Bureau of Labor Statistics, **Job Openings and Labor Turnover Survey (JOLTS)**. This value represents the average annual total separations rate for manufacturing industries in the United States from 2015-2019. The Agency assumes that employee turnover in these industries is the same as manufacturing industries in the United States as a whole. (<https://www.bls.gov/jlt/data.htm>)



wage rates reported in the Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Employment Statistics (OES)*, May 2019 [date accessed: February 25, 2021].<sup>14</sup>

To derive the loaded hourly wage rate presented in the table below, the Agency used data from the Bureau of Labor Statistics' (BLS) *Occupational Employment Statistics (OES)*, as described in the paragraph above. Then, the Agency applied to the wage rate a fringe benefit markup based on Table 1 of the following BLS release: *Employer Costs for Compensation* news release for September 2020 released December 17, 2020

([https://www.bls.gov/news.release/archives/ecec\\_12172020.htm](https://www.bls.gov/news.release/archives/ecec_12172020.htm)). BLS reported that for civilian workers, fringe benefits accounted for 31.4 percent of total compensation and wages accounted for the remaining 68.6 percent. To calculate the loaded hourly wage for each occupation, the Agency divided the mean hourly wage rate by 1 minus the fringe benefits.

<b>Table 1 - WAGE HOUR ESTIMATES</b>				
<b>Occupational Title</b>	<b>Standard Occupation Code</b>	<b>Mean Hourly Wage Rate (A)</b>	<b>Fringe Benefits (B)</b>	<b>Loaded Hourly Wage Rate (C) = (A)/1 - (B)</b>
First-Line Supervisors of Production and Operating Workers	51-1011	\$31.35	31.4%	\$45.70
Production Workers (Textile Machine Setters, Operators, and Tenders)	51-6062	\$14.26	31.4%	\$20.79
Secretaries and Administrative Assistants	43-6014	\$18.84	31.4%	\$27.46
Occupational Health and Safety Technicians	19-5012	\$27.15	31.4%	\$39.58

<b>Table 2: Estimated Number of Establishments in Textile Operations That Process Cotton (Including Knitting Mills)</b>				
<b>NAICS</b>	<b>Industry Sector</b>	<b>No. of Establishments</b>	<b>% of Establishments Processing Cotton [a]</b>	<b>No. of Establishments Processing Cotton</b>
313210	Broadwoven Cotton Weaving	63 [b]	70%	44
313210	Broadwoven Synthetic Weaving	72 [c]	21%	15
313221	Narrow Fabric Weaving	87 [d]	13%	11
315111	Knitting Mills	122 [e]	NA [c]	0 [i]

<sup>14</sup>OES data is available at <https://www.bls.gov/oes/tables.htm>. To access a wage rate, under the links for each data year. "Occupational Profiles," and the Standard Occupational Classification (SOC) Code for the relevant occupation.

<b>Table 2: Estimated Number of Establishments in Textile Operations That Process Cotton (Including Knitting Mills)</b>				
<b>NAICS</b>	<b>Industry Sector</b>	<b>No. of Establishments</b>	<b>% of Establishments Processing Cotton</b> <sup>[a]</sup>	<b>No. of Establishments Processing Cotton</b>
315119		94 <sup>[e]</sup>		
315191		130 <sup>[e]</sup>		
315192		60 <sup>[e]</sup>		
313241		89 <sup>[e]</sup>		
313249		89 <sup>[e]</sup>		
313312		65 <sup>[e]</sup>		
313111	Yarn Spinning	30 <sup>[f]</sup>	18%	5
313112	Winding and Throwing	31 <sup>[g]</sup>	5%	2
313312		4 <sup>[g]</sup>		
313113	Thread Mills	30 <sup>[h]</sup>	61%	21
313312		5 <sup>[h]</sup>		
<b>TOTAL</b>		<b>728</b>		<b>98</b>

<sup>[a]</sup>Source: The CAI Report.

<sup>[b]</sup>Those establishments in SIC 2211 comprised roughly 44% of total establishments in NAICS 313210 in the 1997 Census. In 2018, there were an estimated 288 establishments in NAICS 313210 Broadwoven Fabric Mills. In order to obtain the final number of establishments, adjustments were made for the number of previous NAICS that were included in the 2017 NAICS and it was also adjusted for the repeat NAICS within the different Industry Sectors.

<sup>[c]</sup>Those establishments in SIC 2221 comprised roughly 50% of total establishments in NAICS 313210 in the 1997 Census. In 2018, there were an estimated 288 establishments in NAICS 313210 Broadwoven Fabric Mills. In order to obtain the final number of establishments, adjustments were made for the number of previous NAICS that were included in the 2017 NAICS and it was also adjusted for the repeat NAICS within the different Industry Sectors.

<sup>[d]</sup>Those establishments in SIC 2241 comprised roughly 99% of total establishments in NAICS 313221 in the 1997 Census. NAICS 313221 is included in the 2017 NAICS 313220 Narrow Fabric Weaving, which has an estimated 176 establishments in 2018.

<sup>[e]</sup>Those establishments in SIC 2250 and 2252 comprised 100% of establishments in NAICS 315111, establishments in SIC 2252 comprised 100% of establishments in NAICS 315119 (both these NAICS are now included in the 2017 NAICS 315110 Hosiery and Sock Mills which has an estimated 122 establishments in 2018). Establishments in SIC 2253 and 2259 comprised 100% of establishments in NAICS 315191, establishments in SIC 2254 and 2259 comprised 100% of establishments in NAICS 315192 (both these NAICS are now included in the 2017 NAICS 315190 Other Apparel Knitting Mills with 94 establishments in 2018), establishments in SIC 2257 comprised 100% of establishments in NAICS 313241, establishments in SIC 2258 and 2259 comprised 100% of establishments in NAICS 313249 (both these NAICS are now included in the 2017 NAICS 313240 Knit

Fabric Mills with 129 establishments in 2018). Finally, establishments in SIC 2258 and 2259 comprised 50% of establishments in NAICS 313312 (this NAICS is now included in the 2017 NAICS 313310 Textile and Fabric Finishing with 721 establishments in 2018).

<sup>[f]</sup>Those establishments in SIC 2281 comprised roughly 95% of total establishments in NAICS 313111 in the 1997 Census. This NAICS is now included in the 2017 NAICS 313110 Fiber, Yarn, and Thread Mills with 280 establishments in 2018.

<sup>[g]</sup>Those establishments in SIC 2282 comprised 100% of establishments in NAICS 313112 and roughly 3% of establishments in NAICS 313312 in the 1997 Census. These NAICS now included in the 2017 NAICS 313110 and the 2017 NAICS 313310 with 280 and 721 establishments respectively in the year 2018.

<sup>[h]</sup>Those establishments in SIC 2284 comprised roughly 98% of total establishments in NAICS 313113 and roughly 4% of total establishments in NAICS 313312 in the 1997 Census. These NAICS are now included in the 2017 NAICS 313110 and the 2012 NAICS 313310 with 280 and 721 establishments respectively in the year 2018.

<sup>[i]</sup>The 2017 ICR update estimated that there were 489 total establishments in the “Knitting Mills” sector and 1 establishments in that sector processing cotton. The Agency’s updated figures estimate 406 total establishments, or a decrease of 17% which was then applied to the number of establishments processing cotton (3) from the 2017 ICR.

<b>Table 3: Estimated Number of Exposed Workers in Textile Operations That Process Cotton (Including Knitting Mills)</b>						
<b>NAICS</b>	<b>Industry</b>	<b>Industry Sector</b>	<b>No. of Workers<sup>[a]</sup></b>	<b>No. of Workers in Establishments Processing Cotton</b>	<b>% of Workers Exposed to Cotton Dust<sup>[b]</sup></b>	<b>No. of Workers Exposed to Cotton Dust</b>
313210	Broadwoven Fabric Mills	Broadwoven Cotton Weaving	3,588	2,512	77%	1,934
313210	Broadwoven Fabric Mills	Broadwoven Synthetic Weaving	4,077	856	77%	659
313221	Narrow Fabric Mills and Schiffli Machine Embroidery	Narrow Fabric Weaving	2,830	368	77%	283
315110	Hosiery and Sock Mills	Knitting Mills	8,226	8,226	0.2%	37
315190	Other Apparel Knitting Mills		2,514	2,514		
313240	Knit Fabric Mills		6,018	6,018		
313310	Textile and Fabric Finishing Mills		1,658	1,658		
313110	Fiber, Yarn, and Thread Mills	Yarn Spinning	2,357	424	77%	326
313110	Fiber, Yarn, and Thread Mills	Winding and Throwing	2,481	124	77%	99
313310	Textile and Fabric Finishing Mills		99	5		
313110	Fiber, Yarn, and Thread Mills	Thread Mills	2,432	1,484	77%	1,205

<b>Table 3: Estimated Number of Exposed Workers in Textile Operations That Process Cotton (Including Knitting Mills)</b>						
<b>NAICS</b>	<b>Industry</b>	<b>Industry Sector</b>	<b>No. of Workers<sup>[a]</sup></b>	<b>No. of Workers in Establishments Processing Cotton</b>	<b>% of Workers Exposed to Cotton Dust<sup>[b]</sup></b>	<b>No. of Workers Exposed to Cotton Dust</b>
313310	Textile and Fabric Finishing Mills		133	81		
<b>TOTAL</b>			<b>36,413</b>			<b>4,543</b>

<sup>[a]</sup>Source: U.S. Census Bureau, 2018 County Business Patterns Survey. Employment totals were derived using the ratios used in Table 2 to determine the number of establishments in each industry sector. Thus, if a given industry sector in Table 2 comprises 50% of the total number of establishments in a NAICS industry; it was assumed that the industry sector also comprised 50% of the workers.

<sup>[b]</sup>Source: The CAI Report with the exception of the calculation for the “Knitting Mills” industry sector. In this sector, the Agency estimates there are 37 workers exposed to cotton dust, or 0.2% of the workers in the sector processing cotton. The 0.2% is based on the current percentage of establishments processing cotton for “Knitting Mills.”

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

#### **A. Exposure monitoring (§1910.1043(d))**

##### Alternative cotton-dust sampler (§1910.1043(d)(1))

During the previous clearance period, no employers requested OSHA's opinion regarding an alternative cotton-dust sampler. Therefore, the Agency believes that no employer will make such a request during the clearance period covered by this ICR, and is not taking burden hours and costs for this paperwork requirement.

##### Initial, periodic, and additional monitoring (§§1910.1043(d)(2) and (d)(3))

OSHA assumes that employers monitor each worker exposed to cotton dust during textile operations an average of once a year; this average includes initial, periodic, and additional exposure monitoring. From Table 3, the Agency estimates that 4,543 workers are exposed to cotton dust. As described in the Regulatory Impact Analysis (RIA) for the final Standard (December 17, 1985, published at 50 FR 51120), employers use six vertical elutriators (or equivalent samplers) to assess representative cotton-dust exposures for a group of 15 workers, for a total of 303 samples each year (i.e., 4,543 exposed workers ÷ 15 workers per sample × 1 sample per year). In addition, the Agency estimates that an in-house industrial-hygiene technician takes 2 hours to assemble, check, and disassemble the samplers used for each group of workers, resulting in total annual burden hour and cost estimates of:

$$\begin{aligned} \text{Burden hours: } & 303 \text{ samples} \times 2 \text{ hours} = 606 \text{ hours} \\ \text{Cost: } & 606 \text{ hours} \times \$39.58 = \$23,985.48 \end{aligned}$$

##### Employee notification (§1910.1043(d)(4))

The standard requires employers to notify workers of their exposure-monitoring results. Notification must occur within 15 days after the employer receives the results either by providing each worker with a written copy of their results or by posting the results in an appropriate location that is accessible to the workers. OSHA believes that such notification requires a secretary 5 minutes (5/60 hour) to prepare and post the results for the 98 establishments (Table 2). Accordingly, the total annual burden hour and cost estimates for this paperwork requirement are:

$$\begin{aligned} \text{Burden hours: } & 98 \text{ establishments} \times 5/60 \text{ hour} = 8.17 \text{ hours} \\ \text{Cost: } & 8.17 \text{ hours} \times \$27.46 = \$224.35 \end{aligned}$$

## **B. Methods of compliance (§1910.1043(e))**

### Compliance program (§1910.1043(e)(3))

OSHA assumes that no new establishments will process cotton during the clearance period covered by this ICR. Therefore, only existing establishments with poor maintenance or new processes that result in worker exposures above the PEL will update their written compliance programs. Accordingly, the Agency estimates, consistent with the previous ICR, only 10 establishments must revise their written compliance programs each year, and that a supervisor requires about 1 hour to update such a program. Thus, the total burden hour and cost estimates for this paperwork requirement each year are:

**Burden hours:** 10 facilities × 1 hour = 10 hours

**Cost:** 10 hours × \$45.70 = \$457.00

## **C. Respirator program (§1910.1043(f)(2)(i))**

Employers must implement a respiratory protection program in accordance with 29 CFR 1910.134(b) through (d) (except (d)(1)(iii)), and (f) through (m). OSHA accounts for the burden hours and costs resulting from the respiratory-protection requirements under the Information Collection Request (ICR) for its Respiratory Protection Standard (§1910.134), OMB Control No. 1218-0099.

## **D. Work practices (§1910.1043(g))**

As noted in the previous determination for compliance programs above, OSHA assumes that this ICR will cover only existing cotton-processing establishments. Therefore, no employer will have to develop and implement a written program of work practices to minimize worker cotton-dust exposure during the clearance period covered by the ICR. Accordingly, the Agency is not taking any burden hours or cost for this paperwork requirement.

## **E. Medical surveillance (§1910.1043(h))**

### Initial examinations (§1910.1043(h)(2))

With an average annual worker turnover rate of 29%<sup>15</sup>, employers hire 1,317 new workers for textile operations each year (i.e., 4,543 existing workers × 29% turnover rate). Assuming the

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<sup>15</sup>Source: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS) 2010-2015 <https://www.bls.gov/jlt/home.htm#news> manufacturing industries in the United States from 2015-2019. To access the data, under “Databases” select “Multi-Screen,” Manufacturing, Total US, All Areas, Total Separations, All Size Classes, Rate, and Not Seasonally Adjusted. After the data tables loads, click the “Include Annual Averages” box and click “Go.” (Note that BLS retabulates the data every year, so sometimes minor changes may be seen when the data are downloaded at different times.)

same annual worker turnover rate for the two non-textile operations, the cottonseed processing industry has 44 new workers annually (i.e., 152 workers  $\times$  29% turnover rate), while 177 new workers enter the cotton-waste-recycling industry annually (i.e., 610 existing workers  $\times$  29% turnover rate). Therefore, the total number of new workers hired each year for textile and non-textile operations is 1,538; each of these new workers must receive an initial medical examination. Assuming that a worker takes 1 hour and 30 minutes (90/60 hour) of paid time to complete an initial medical examination at an offsite medical facility,<sup>16</sup> the estimated total annual burden hours and cost of this requirement are:

**Burden hours:** 1,538 examinations  $\times$  90/60 hour = 2,307 hours

**Cost:** 2,307 hours  $\times$  \$20.79 = \$47,962.53

Periodic examinations (§1910.1043(h)(3))

Consistent with the previous ICR, OSHA assumes that 54% (2,453) of the 4,543 workers exposed to cotton dust during textile operations have exposures above the AL and, therefore, must receive at least an annual periodic medical examination.<sup>17</sup> In addition, only workers who remain with an employer for at least a year require an annual periodic medical examination (i.e., new workers, who constitute 29% (711) of the workers exposed above the AL during textile operations, are exempt from these examinations for one year from the date of hire). Therefore, a total of 1,742 of these workers must receive an annual periodic medical examination.

The remaining 46% of exposed workers involved in textile operations, 2,090 workers (4,543 workers  $\times$  (1 – 54%)), have cotton-dust exposures at or below the AL; employers must administer a periodic medical examination to these workers at least once every two years. With an annual turnover rate of 29%, OSHA estimates that 1,054<sup>18</sup> of these workers are available two years after the hiring date for the required medical examination; assuming that employers administer these examinations evenly over any two-year period, then 527 of these workers obtain the examination each year.

OSHA assumes that exposed workers involved in non-textile operations have no cotton-dust exposures above the AL; therefore, these workers must receive a periodic medical examination at least once every two years. With an annual turnover rate of 29%, the Agency estimates that 41

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<sup>16</sup>This time includes 30 minutes to travel to and from the offsite facility, and an additional hour to administer an examination. Many employers use offsite medical facilities because employees can receive their initial medical examinations individually (i.e., in a piecemeal fashion), thereby avoiding the wasted time and inefficiencies associated with establishing a permanent onsite medical facility or arranging for a mobile medical facility (e.g., a van).

<sup>17</sup>The Agency is using this percentage (54%) because it has no recent information describing cotton-dust exposures among employees involved in textile operations.

<sup>18</sup>This number (1,054) was calculated using the following equation: (2,453) exposed employees  $\times$  (1-54%) at or below the AL  $\times$  (1-29%) turnover rate in the first year  $\times$  (1-29%) turnover rate in the second year = 1,054 exposed employees.

exposed workers engaged in cottonseed processing operations and 166 of workers in the cotton waste recycling industry are available two years after the hiring date for periodic medical examinations.<sup>19</sup> If employers distribute these examinations equally over any two-year period, then 104 (i.e.,  $(41 + 166 = 207) \div 2$ ) of these workers receive the examination each year.

The Agency assumes that a worker takes 1 hour of paid time to complete a periodic medical examination at an onsite medical facility.<sup>20</sup> With a total of 2,373 periodic medical examinations to administer each year,<sup>21</sup> the Agency estimates the annual burden hours and cost of this requirement to be:

**Burden hours:** 2,373 examinations  $\times$  1 hour = 2,373 hours

**Cost:** 2,373 hours  $\times$  \$20.79 = \$49,334.67

#### Information provided to the physician (§1910.1043(h)(4))

The Agency believes that, for each medical examination administered to a worker, it takes a secretary 5 minutes (5/60 hour) to compile the required information and provide it to the physician. With a total of 6,313 medical examinations to administer each year (i.e., 1,539 initial examinations and 4,774 periodic examinations), the estimated total annual burden hours and cost of this provision are:

**Burden hours:** 6,313 examinations  $\times$  5/60 hour = 526.08 hours

**Cost:** 526.08 hours  $\times$  \$27.46 = \$14,446.16

#### Physician's written opinion (§1910.1043(h)(5))

OSHA assumes a secretary spends 5 minutes (5/60 hour) delivering a copy of the physician's written opinion to each worker who receives a medical examination, as well as maintaining a

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<sup>19</sup> For cottonseed workers, this figure is calculated as 152 exposed workers  $\times$  54% below the AL  $\times$  (1- 29%) remain after the first year  $\times$  (1-29%) remain after two years = 41 workers receiving periodic examinations. For recycling workers, this figure is calculated as 610 exposed workers  $\times$  54% below the AL  $\times$  (1- 29%) remain after the first year  $\times$  (1-29%) remain after two years = 166 workers.

<sup>20</sup> These employees would go to a mobile, onsite medical facility (e.g., a van) because they could receive the medical examinations in small groups; under these conditions, employers save the time (30 minutes) and associated cost required for employees to travel to an offsite medical facility, while making optimum use of the onsite facility.

<sup>21</sup> This total consists of 3,955 examinations for textile employees exposed above the AL; 708 textile employees exposed at or below the AL; and 111 non-textile employees exposed at or below the AL.



record of the opinion. For the 6,313 medical examinations that workers receive each year, the estimated total annual burden hours and cost of this requirement are:

$$\begin{aligned} \text{Burden hours: } & 6,313 \text{ examinations} \times 5/60 \text{ hour} = 526.08 \text{ hours} \\ \text{Cost: } & 526.08 \text{ hours} \times \$27.46 = \$14,446.16 \end{aligned}$$

#### **F. Employee education and training (§1910.1043(i)(1)(i) and (ii))**

The requirements that employers provide training to workers under paragraphs (i)(1)(i) and (ii) are not considered to be collections of information. OSHA is not taking burden for these activities under Item 12 of this Supporting Statement.

#### **G. Signs (§1910.1043(j))**

The provisions containing the paperwork requirements associated with signs specify the design, format, and specific language for these materials. Therefore, OSHA is taking no burden for these provisions because it is providing the information needed by employers to meet these requirements. (See “Controlling Paperwork Burden on the Public,” 5 CFR 1320.3(c)(2)).

#### **H. Recordkeeping (§1910.1043(k))<sup>22</sup>**

Exposure measurements (§1910.1043(k)(1))

The Agency assumes that a secretary takes about 5 minutes (5/60 hour) a year to establish and maintain a worker’s exposure-monitoring record. Assuming that 4,543 workers in the textile industry require exposure monitoring (see the determinations for “Initial, Periodic, and Additional Monitoring (§§1910.1043(d)(2) and (d)(3))” above), the total annual burden hours and cost estimates for this requirement are:

$$\begin{aligned} \text{Burden hours: } & 4,543 \text{ workers} \times 5/60 \text{ hour} = 378.58 \text{ hours} \\ \text{Cost: } & 378.58 \text{ hours} \times \$27.46 = \$10,395.81 \end{aligned}$$

Availability (§1910.1043(k)(3))

The Agency assumes that 10% of the covered workers in the textile and non-textile industries or their designated representatives request access to these records each year, for a total of 530 requests (4,543 textile workers + 152 cottonseed processing workers + 610 recycling workers = 5,305 and  $5,305 \times 10\% = 530$  requests). OSHA estimates that a secretary requires 5 minutes (5/60 hour) to make the requested record available to each worker. Therefore, the total yearly burden hours and cost associated with making the required records available to workers is:

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<sup>22</sup>The Agency is accounting for the medical-surveillance recordkeeping requirements under the determinations for “Physician’s written opinion (§1910.1043(h)(5))” above.

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**Burden hours:** 530 worker-related requests  $\times$  5/60 hour = 44.17 hours

**Cost:** 44.17 hours  $\times$  \$27.46 = \$1,212.91

<b>Table 4: Estimated Annualized Respondent Cost and Hour Burden</b>								
<b>Information Collection Requirement(s)</b>	<b>Type of Respondent</b>	<b>No. of Respondents</b>	<b>No. of Responses per Respondent</b>	<b>Total No. of Responses</b>	<b>Avg. Burden per Response (In Hrs.)</b>	<b>Total Burden Hours</b>	<b>Avg. Hourly Wage Rate</b>	<b>Total Burden Costs</b>
<b>(A) Exposure Monitoring (§1910.1043(d))</b>								
	Technician	303	1	303	2	606	\$39.58	\$23,985.48
	Secretaries and Administrative Assistants	98	1	98	5/60	8.17	\$27.46	\$224.35
<b>Subtotal</b>		--	--	<b>401</b>	--	<b>614.17</b>	--	<b>\$24,209.83</b>
<b>(B) Methods of Compliance (§1910.1043(e))</b>								
	Supervisor	10	1	10	1	10	\$45.70	\$457.00
<b>Subtotal</b>		--	--	<b>10</b>	--	<b>10</b>	--	<b>\$457.00</b>
<b>(C) Respirator Program (§1910.1043(f)(2)(i))</b>								
<b>(D) Work Practices (§1910.1043(g))</b>								
<b>(E) Medical Surveillance (§1910.1043(h))</b>								
	Production Worker	1,538	1	1,538	90/60	2,307.00	\$20.79	\$47,962.53
	Production Worker	2,373	1	2,373	1	2,373.00	\$20.79	\$49,334.67
	Secretaries and Administrative Assistants	3,911	1	3,911	5/60	325.92	\$27.46	\$8,949.67
	Secretaries and Administrative Assistants	3,911	1	3,911	5/60	325.92	\$27.46	\$8,949.67
<b>Subtotal</b>		--	--	<b>11,733</b>	--	<b>5,332</b>	--	<b>\$115,196.54</b>
<b>(F) Employee Education and Training (§1910.1043(i)(1)(i) and (ii))</b>								
<b>(G) Signs (§1910.1043(j))</b>								
<b>(H) Recordkeeping (§1910.1043(k))</b>								
	Secretaries and Administrative Assistants	4,543	1	4,543	5/60	378.58	\$27.46	\$10,395.90
	Secretaries and Administrative Assistants	530	1	530	5/60	44.17	\$27.46	\$1,212.82
<b>Subtotal</b>		--	--	<b>5,073</b>	--	<b>422.75</b>	--	<b>\$11,608.72</b>
<b>GRAND TOTAL</b>		--	--	<b>17,217</b>	--	<b>6,379</b>	--	<b>\$151,472.09</b>

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**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 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 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.**

### **Capital-Cost Determinations**

From these determinations (described below), the Agency estimates that the total capital cost of these requirements each year is \$845,662. This total consists of \$39,996 for analyzing exposure-monitoring samples, and \$805,666 to administer medical examinations.

#### **A. Exposure monitoring (§1910.1043(d))**

This ICR update assumes the average cost for an OSHA-accredited laboratory to analyze a sample of airborne cotton dust is about \$22.<sup>23</sup> As noted above under Initial, Periodic, and

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<sup>23</sup>The previous ICR estimated the cost to analyze a sample of cotton dust to be \$21. The Consumer Price Index (CPI) indicated a 4.8% increase in the price of “Services by other

Additional Monitoring (§1910.1043(d)(2) and (d)(3)) in Item 12, industrial-hygiene technicians conduct 303 collections using six vertical elutriators per collection (for a total of 1,818 samples; i.e., 6 vertical elutriators × 303 collections). Therefore, the annual cost to analyze the 1,818 samples collected each year is:

$$\text{Cost: } 1,818 \text{ samples} \times \$22 = \$39,996$$

#### **B. Medical surveillance (§1910.1043(h))**

This ICR update assumes the cost of a medical examination required by the Standard to be \$206.<sup>24</sup> As noted above under Information provided to the physician (§1910.1043(h)(4)) in Item 12, the establishments covered by the Standard administer a total of 3,911 medical examinations each year, resulting in the following annual cost:

$$\text{Cost: } 3,911 \text{ examinations} \times \$206 = \$805,666$$

**The total cost for exposure monitoring and medical surveillance is \$39,996+ \$805,666 = \$845,662.**

**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), any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 into a single table.**

There is no cost to the Federal Government associated with this information collection request.

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

The Agency is requesting a decrease in its current burden hours from 9,532 to 6,379 a total decrease of 3,153 hours. The decrease was due to a decrease in the number of exposed employees from 4,957 to 4,543. Additionally, the Agency made corrections to the calculations previously used for periodic medical surveillance, principally subtracting the number of exempt new hires from the total workers requiring periodic medical exams rather than adding it, which reduces both burden hours and costs. The total capital cost is 845.662 a decrease of \$ 495,330 from the previous estimate of 1,340,992.

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medical professionals” from 2016 to 2020; the cost to analyze an air sample was assumed to have increased by 4.8% as well <https://www.bls.gov/cpi/data.htm>.

<sup>24</sup>This ICR updates the previous ICR cost estimates with the 4.8% increase in prices for professional medical services from 2016 to 2020 from the Consumer Price Index; The cost of a medical examination is \$206, and the air monitoring sample is \$22.00.

<b>Table 5: Summary of Burden-Hour Changes and Cost Adjustments</b>					
<b>Information Collection Requirement</b>	<b>Current Burden Hours</b>	<b>Requested Burden Hours</b>	<b>Burden Hour Change</b>	<b>Estimated Cost (Item 12)</b>	<b>Responses</b>
<b>Exposure Monitoring</b>					
Initial, Periodic, and Additional Monitoring	660	606	-54	\$23,985.48	303
Employee Notification	9	8.17	-0.83	\$224.35	98
<b>Methods of Compliance</b>					
Compliance Program	10	10	0	\$457.00	10
<b>Medical Surveillance</b>					
Initial Examinations	2,103	2,307	204	\$47,962.53	1,538
Periodic Examinations	5,194	2,373	-2,821	\$49,334.67	2,373
Information Provided to the Physician	550	325.9	-224.1	\$5,430.22	2,373
Physician's Written Opinion	550	325.9	-224.1	\$5,430.22	2,373
<b>Recordkeeping</b>					
Exposure Measurements	413	378.58	-34.42	\$10,395.81	4,543
Availability	43	44.17	1.17	\$1,212.91	530
<b>TOTALS</b>	<b>9,532</b>	<b>6,379</b>	<b>-3,153</b>	<b>\$144,433.18</b>	<b>14,141</b>

**16. For collections of information whose results will be published, outline plans for tabulations, 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 §1910.1043.

**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 requesting an exception to the certification statement.

**B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS**

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