

**SUPPORTING STATEMENT FOR
THE INFORMATION COLLECTION REQUIREMENTS
IN THE PROPOSED BERYLLIUM STANDARD FOR
GENERAL INDUSTRY (29 CFR 1910.1024)¹
OMB CONTROL NO. 1218-0NEW
(July 2015)**

A. JUSTIFICATION

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

The main objective of the Occupational Safety and Health Act (“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(a)). To achieve this objective, the OSH Act specifically authorizes “the development and promulgation of occupational safety and health standards” (29 U.S.C. 651(b)(9)). The Act further states that “[t]he Secretary . . . shall . . . prescribe such rules and regulations as [he/she] may deem necessary to carry out [his/her] responsibilities under this Act, including rules and regulations dealing with the inspection of an employer’s establishment” (29 U.S.C. 657(g)(2)).

To protect worker health, the OSH Act authorizes the Secretary of Labor (Secretary) to develop standards that provide for “monitoring or measuring employee exposure” to occupational hazards and “prescribe the type and frequency of medical examinations or other tests which shall be made available, by the employer or at [the employer’s] cost, to employees exposed to such hazards in order to most effectively determine whether the health of such employees is adversely affected by such exposure” (29 U.S.C. 655(b)(7)). Moreover, the Act directs the Secretary to “issue regulations requiring employers to maintain accurate records of employee exposures to potentially toxic materials or harmful physical agents which are required to be monitored or measured,” and further requires that such regulations provide “for each employee or former employee to have access to such records as will indicate [the employee’s] own exposure to toxic materials or harmful physical agents” as appropriate (29 U.S.C. 657(c)(3)). In addition, the OSH Act mandates that “[e]ach employer shall make, keep and preserve, and make available to the Secretary . . . such records regarding [his/her] activities relating to this Act as the Secretary . . . may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the causes and prevention of occupational accidents and illnesses” (29 U.S.C. 657(c)(1)).

Section 6(b)(7) of the Act, 29 U.S.C. 655(b)(7), further specifies that “[a]ny standard promulgated under this subsection shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that employees are apprised of all hazards to which they are

¹ The purpose of this Supporting Statement is to analyze and describe the burden hours and costs associated with provisions of the proposed standard that contain collections of information (paperwork) requirements; this Supporting Statement does not provide information or guidance on how to comply with, or how to enforce, these provisions.

exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure.”

Under the authority granted by the OSH Act, the Secretary, through the Occupational Safety and Health Administration (“OSHA” or “the Agency”), proposes to promulgate a substance-specific standard for general industry regulating occupational exposure to beryllium and beryllium compounds (“the proposed standard”; 29 CFR 1910.1024).

The basis for issuance of this proposal is a preliminary determination by the Agency that employees exposed to beryllium face a significant risk of material health impairment at the current permissible exposure limits and that promulgating the proposed standard will substantially reduce that risk.

Items 2 and 12 below list and describe the specific information collection requirements of the proposed standard.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The proposed standard contains collections of information as follows:

§1910.1024 (d)(2) Initial Exposure Monitoring.

The employer shall conduct initial exposure monitoring to determine the 8-hour TWA exposure and 15-minute short-term exposure for each employee, except that the employer is not required to conduct initial monitoring if the employer relies on historical or objective data to characterize employee exposures as permitted by proposed 1910.1024(d)(2)(i) and (ii).

Purpose: The purposes of initial exposure monitoring include determination of the extent and degree of exposure at the worksite; identification and prevention of employee overexposure; identification of the sources of exposure to beryllium; collection of exposure data so that the employer can select the proper control methods to be used; and evaluation of the effectiveness of those selected methods. Exposure assessment enables employers to meet their legal obligation to ensure that their employees are not exposed to beryllium in excess of the permissible exposure limits and to notify employees of their exposure levels, including any overexposures as required by section 8(c)(3) of the Act (29 U.S.C. § 657(c)(3)). In addition, the availability of exposure data enables physicians or licensed healthcare professionals (PLHCPs) performing medical examinations to be informed of the extent of an employee’s occupational exposures.

(i) Where the employer has conducted exposure monitoring for beryllium and relies on these historical data, the employer may rely on these historical data in lieu of initial monitoring if:

(A) The work operations and workplace conditions that were in place when the historical monitoring data were obtained reflect workplace conditions closely resembling the processes, material, control methods, work practices, and environmental conditions used and prevailing in the employer’s current operations;

(B) The characteristics of the beryllium-containing material being handled when the historical monitoring data were obtained closely resemble the characteristics of the beryllium-containing material used during the job for which initial monitoring will not be performed; and

(C) The exposure monitoring satisfied all other requirements of this standard, including Accuracy of Measurement in paragraph (d)(1)(v).

Purpose: This provision is intended to exempt employers who have recently performed appropriate employee monitoring from the requirement to conduct initial monitoring. OSHA anticipates that this provision will reduce the compliance burden on employers, as redundant monitoring would not be required.

(ii) Where the employer relies on objective data to satisfy initial monitoring requirements, the employer is not required to conduct initial monitoring if such data:

(A) Demonstrate that any material containing beryllium or any specific process, operation, or activity involving beryllium cannot release beryllium dust, fumes, or mist in concentrations at or above the action level or above the STEL under any expected conditions of use; and

(B) Reflect workplace conditions closely resembling the processes, material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations.

Purpose: This provision is intended to exempt employers from conducting initial monitoring to characterize employee exposures from a particular process when objective data demonstrate that no exposure could result from the process. OSHA anticipates that this provision will reduce the compliance burden on employers, as monitoring would not be required when the requirements for objective data use are satisfied.

§1910.1024 (d)(3) Periodic Exposure Monitoring.

If initial exposure monitoring indicates that exposures are at or above the action level and at or below the TWA PEL, the employer shall conduct periodic exposure monitoring at least annually in accordance with paragraph (d)(1) of this standard.

Purpose: OSHA recognizes that exposures in the workplace may fluctuate. Where initial exposure monitoring demonstrates exposures at or above the action level and at or below the TWA PEL, periodic monitoring helps employers ensure that workers do not experience exposures that are higher than expected, and facilitates the use of additional control measures where necessary. In addition, periodic monitoring reminds workers and employers of the continued need to protect against the hazards associated with beryllium exposure. Because of the fluctuation in exposures, OSHA believes that when initial monitoring results equal or exceed the action level, but are at or below the PEL, employers should continue to monitor workers to ensure that exposures remain at or below the PEL.

§1910.1024 (d)(4) Additional Monitoring.

The employer also shall conduct exposure monitoring within 30 days after any of the following situations occur:

- (i) Any change in production processes, equipment, materials, personnel, work practices, or control methods that can reasonably be expected to result in new or additional exposure; or
- (ii) The employer has any other reason to believe that new or additional exposure is occurring.

Purpose: The additional assessments required under this subsection are necessary to ensure that the exposure monitoring accurately represents existing exposure conditions. The exposure information gained from such assessments will enable the employer to take appropriate action to protect exposed workers. On the other hand, additional monitoring is not required simply because a change occurs, if the change is not reasonably expected to result in new or additional exposures to beryllium.

§1910.1024 (d)(5)(i)&(ii) Employee Notification of Monitoring Results.

(i) Within 15 working days after receiving the results of any exposure monitoring completed under this standard, the employer shall notify each employee whose exposure is measured or represented by the monitoring individually in writing of the monitoring results or shall post the monitoring results in an appropriate location that is accessible to each of these employees.

(ii) Where exposures exceed the TWA PEL or STEL, the written notification required by paragraph (d)(5)(i) of this standard shall include suspected or known sources of exposure and the corrective action(s) the employer has taken or will take to reduce exposure to or below the PELs, where feasible corrective action exists but had not been implemented when the monitoring was conducted.

Purpose: Notifying workers of their exposures allows them to know if the employer is required to make medical surveillance available to them and can permit and encourage them to be more proactive in working safely to control their own exposures through better work practices and more active participation in safety programs. The time allowed for notification is consistent with the harmonized notification times established for a number of health standards applicable to general industry.

§1910.1024 (e)(2)(i) & (ii) Demarcation.

(i) The employer shall identify each beryllium work area through signs or any other methods that adequately establish and inform each employee of the boundaries of each beryllium work area and regulated area.

(ii) The employer shall identify each regulated area in accordance with paragraph (m)(2) of this standard.

Purpose: The purpose of a beryllium work area is to inform employees of where beryllium

exposure occurs, regardless of the exposure level. The purpose of a regulated area is to ensure that the employer makes workers aware of the presence of beryllium at levels above the PEL, to limit exposure to as few workers as possible, and to remind employees of what personal protective equipment (PPE) is required in regulated areas. Establishing a regulated area is an effective means of minimizing exposure to workers not directly involved in operations that generate beryllium, and limiting the risk of exposure to substances known to cause adverse health effects.

OSHA is not taking burden hours or costs for the regulated-areas provisions under Items 12 and 13 of this Supporting Statement. Since the standard is providing specific language to the employer under §1910.1024(m)(2)(ii) Sign Specification. The employer must ensure each warning sign bears the follow legend;

DANGER BERYLLIUM

MAY CAUSE CANCER CAUSES DAMAGE TO LUNGS,

AUTHORIZED PERSONNEL ONLY

WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING AND EQUIPMENT IN THIS AREA.

Because Paragraph (m)(2) of the proposed standard provides specific language for the required signs and labels, the Agency is exempted from taking burden hours and costs of this provision under 5 CFR 1320.3(c)(2) (“Controlling paperwork burden on the public”).

§1910.1024 (f)(1)(i), (ii), &(iii) Written Exposure Control Plan.

(i) The employer shall establish, implement, and maintain a written exposure control plan for beryllium work areas, which shall contain:

- (A) An inventory of operations and job titles reasonably expected to have exposure;
- (B) An inventory of operations and job titles reasonably expected to have exposure at or above the action level;
- (C) An inventory of operations and job titles reasonably expected to have exposure above the TWA PEL or STEL;
- (D) Procedures for minimizing cross-contamination, including but not limited to preventing the transfer of beryllium between surfaces, equipment, clothing, materials, and articles within beryllium work areas;
- (E) Procedures for keeping surfaces in the beryllium work area as free as practicable of beryllium;
- (F) Procedures for minimizing the migration of beryllium from beryllium work areas to other locations within or outside the workplace;
- (G) An inventory of engineering and work practice controls required by paragraph (f)(2) of this standard; and

(H) Procedures for removal, laundering, storage, cleaning, repairing, and disposal of beryllium-contaminated personal protective clothing and equipment, including respirators.

(ii) The employer shall update the exposure control plan when:

(A) Any change in production processes, materials, equipment, personnel, work practices, or control methods results or can reasonably be expected to result in new or additional exposures to beryllium;

(B) An employee is confirmed positive, is diagnosed with CBD, or shows signs or symptoms associated with exposure; or

(C) The employer has any reason to believe that new or additional exposures are occurring or will occur.

(iii) The employer shall make a copy of the exposure control plan accessible to each employee who is or can reasonably be expected to be exposed to airborne beryllium.

Purpose: The purpose of the written exposure control plan is to help reduce skin contact with beryllium, which can lead to beryllium sensitization, and airborne exposure, which can lead to beryllium sensitization, CBD, and lung cancer, by requiring employers to record certain information about employee exposure to beryllium and make that information available to employees.

§1910.1024 (g)(2) Respiratory protection program.

Where this standard requires an employee to use respiratory protection, such use shall be in accordance with the Respiratory Protection Standard (29 CFR 1910.134).

Purpose: The purpose of this requirement is to ensure that employers establish a standardized procedure for selecting, using, and maintaining respirators for each workplace that requires respirator use. Developing written procedures ensures that employers implement the required respirator program in an effective and reliable manner that addresses the unique characteristics (including chemical hazards) of the workplace.

The Agency accounts for the burden hours and cost resulting from the respirator-program requirements under the Information Collection Request for OSHA's Respiratory Protection Standard (§1910.134), Office of Management and Budget (OMB) Control Number 1218-0099.

§1910.1024 (h)(2)(v) Personal Protective Clothing and Equipment.

(2)(v) When protective clothing or equipment required by this standard is removed from the workplace for laundering, cleaning, maintenance or disposal, the employer shall ensure that protective clothing and equipment are stored and transported in sealed bags or other closed containers that are impermeable and are labeled in accordance with paragraph (m)(3) of this standard and the HCS (29 CFR 1910.1200).

Purpose: This provision is intended reduce exposure to beryllium for employees handling beryllium-contaminated materials by requiring these materials to be stored in sealed containers, and by informing those handling the containers that they contain beryllium through labels describing the potentially harmful effects of beryllium exposure.

The Agency accounts for the burden hours and cost resulting for labeling requirements under the Information Collection Request for OSHA's Hazard Communication Standard (§1910.1200), Office of Management and Budget (OMB) Control Number 1218-0072.

§1910.1024 (h)(3)(iii) Personal Protective Clothing and Equipment.

(3)(iii) The employer shall inform in writing the persons or the business entities who launder, clean or repair the protective clothing or equipment of the potentially harmful effects of exposure to airborne beryllium and contact with soluble beryllium compounds and that the protective clothing and equipment must be handled in accordance with this standard.

Purpose: This provision is intended reduce exposure to beryllium for employees handling beryllium-contaminated materials by providing employers and employees handling these materials the information necessary to protect employees from beryllium exposure.

§1910.1024 (j)(3)(ii), (iii) Housekeeping

(3). Employers must ensure that:

(ii) Bags or containers of waste, debris, and materials required by (j)(3)(i) are labeled in accordance with paragraph (m)(3) of this standard; and

(iii) Materials designated for recycling that are visibly contaminated with beryllium shall be cleaned to remove visible particulate, or placed in sealed, impermeable enclosures, such as bags or containers, that are labeled in accordance with paragraph (m)(3) of this standard.

Purpose: This provision is intended reduce exposure to beryllium for employees handling beryllium-contaminated materials by requiring these materials to be stored in sealed containers, and by informing employers and employees handling the containers that they contain beryllium through labels describing the potentially harmful effects of beryllium exposure.

OSHA is not taking burden hours or costs for the housekeeping provisions under Items 12 and 13 of this Supporting Statement. Because paragraph (m)(2) of the proposed standard provides specific language for the required signs and labels, the Agency is exempted from taking burden hours and costs of this provision under 5 CFR 1320.3(c)(2) (“Controlling paperwork burden on the public”).

§1910.1024 (k)(1) Medical Surveillance.

(1) General. (i) The employer shall make medical surveillance as required by this paragraph available at no cost to the employee, and at a reasonable time and place, as follows:

(A) For each employee who has worked in a regulated area for more than 30 days in the last 12 months;

(B) For each employee showing signs or symptoms of CBD, such as shortness of breath after a short walk or climbing stairs, persistent dry cough, chest pain, or fatigue;

(C) For each employee exposed to beryllium during an emergency; and

(D) For each employee who was exposed to airborne beryllium above the TWA PEL for more than 30 days in a 12-month period for 5 years or more, limited to the procedures described in paragraph (k)(3)(ii)(F) unless the employee also qualifies for an examination under (k)(1)(i)(A), (B), or (C).

(ii) The employer shall ensure that all medical examinations and procedures required by this standard are performed by or under the direction of a licensed physician.

(2) Frequency. The employer shall provide a medical examination:

(i) Within 30 days after determining that:

(A) An employee meets the criteria of paragraph (k)(1)(i)(A), unless the employee has received a medical examination, provided in accordance with this standard, within the last 12 months; or

(B) An employee meets the criteria of paragraph (k)(1)(i)(B) or (C).

(ii) Annually thereafter for each employee who continues to meet the criteria of paragraph (k)(1)(i)(A) or (B) of this standard; and

(iii) At the termination of employment for each employee who meets the criteria of paragraph (k)(1)(i)(A), (B), or (C) of this standard at the time the employee's employment is terminated, unless an examination has been provided in accordance with this standard during the 6 months prior to the date of termination.

§1910.1024 (k)(3) Contents of examination.

(i) The employer shall ensure that the PLHCP advises the employee of the risks and benefits of participating in the medical surveillance program and the employee's right to opt out of any or all parts of the medical examination.

(ii) The employer shall ensure that the employee is offered a medical examination that includes:

(A) A medical and work history, with emphasis on past and present exposure, smoking history, and any history of respiratory system dysfunction;

(B) A physical examination with emphasis on the respiratory tract;

(C) A physical examination for skin breaks and wounds;

(D) Pulmonary function tests, performed in accordance with the guidelines established by the American Thoracic Society including forced vital capacity and forced expiratory volume at one (1) second (FEV1);

(E) A standardized BeLPT upon the first examination and within every 2 years from the date of the first examination until the employee is confirmed positive. If a more reliable and accurate diagnostic test is developed after the effective date of this standard such that beryllium sensitization can be confirmed after one test, a second confirmation test need not be performed.

If an employee who has not been confirmed positive receives an abnormal BeLPT result, a second BeLPT is to be performed within 1 month. This requirement for a second test is waived if a more reliable and accurate test for beryllium sensitization does not need to be repeated due to variability, repeatability and accuracy of the test methodology.

(F) Each employee who meets the criteria of paragraph (k)(1)(i)(D) shall be offered a low dose helical tomography (CT Scan). The CT Scan shall be offered every 2 years for the duration of the employee's employment. This obligation begins on the start-up date of this standard, or on the 15th year after the employee's first exposure above .2 $\mu\text{g}/\text{m}^3$ for more than 30 days in a 12-month period, whichever is later; and

(G) Any other test deemed appropriate by the PLHCP.

Purpose: The initial medical examination not only establishes a medical baseline for each worker, but serves to identify workers who have beryllium-related medical disorders or other health problems that additional beryllium exposure may exacerbate. The proposed requirement that employers offer employees a medical examination within 30 days after initial assignment would help employers determine if an employee will be able to work in the job involving beryllium exposure without adverse health effects.

The general purposes of the medical surveillance provisions for beryllium include: to determine, when reasonably possible, if an individual worker is at increased risk for adverse health effects with continued exposure to beryllium; to identify beryllium-related adverse health effects within the employer's worker population for the purpose of taking appropriate intervention measures; and to determine workers' fitness to use personal protective equipment, such as respirators.

The proposal is consistent with Section 6(b)(7) of the OSH Act (29 U.S.C. 655(b)(7)), which requires that, when appropriate, OSHA include medical surveillance programs in its standards to determine whether exposure to the hazard addressed by the proposed standard adversely affects the health of workers.

§1910.1024 (k)(4) Information Provided to the PLHCP.

The employer shall ensure that the examining PLHCP has a copy of this standard and all appendices and shall provide the following information, if known:

(i) A description of the employee's former and current duties that relate to the employee's occupational exposure;

(ii) The employee's former and current levels of occupational exposure;

(iii) A description of any protective clothing and equipment, including respirators, used by the employee, including when and for how long the employee has used that protective clothing and equipment; and

(iv) Information from records of employment-related medical examinations previously provided to the employee, currently within the control of the employer, after obtaining a medical release from the employee.

Purpose: Providing the PLHCP with exposure monitoring results, as required under paragraph (k)(4)(ii), will assist the physician completing the written medical opinion in determining if an employee is likely to be at risk of adverse effects from beryllium exposure at work. A well-documented exposure history would also assist the PLCHP in determining if a condition may be related to beryllium exposure.

The PLHCP may not include findings unrelated to beryllium in the written opinion provided to the employer, or otherwise reveal such findings to the employer. OSHA proposed this provision to assure confidentiality of medical information, and to reassure workers participating in medical surveillance that they will not be penalized or embarrassed as a result of the employer obtaining information about them not directly pertinent to beryllium exposure.

§1910.1024 (k)(5)(i) & (iii) Licensed Physician’s Written Medical Opinion.

(i) The employer shall obtain a written medical opinion from the licensed physician within 30 days of the examination, which contains:

(A) The licensed physician’s opinion as to whether the employee has any detected medical condition that would place the employee at increased risk of CBD from further exposure;

(B) Any recommended limitations on the employee's exposure, including the use and limitations of protective clothing or equipment, including respirators; and

(C) A statement that the PLHCP has explained the results of the medical examination to the employee, including any tests conducted, any medical conditions related to exposure that require further evaluation or treatment, and any special provisions for use of protective clothing or equipment.

(iii) The employer shall provide a copy of the licensed physician’s written medical opinion to the employee within 2 weeks after receiving it.

Purpose: The purpose of requiring the PLHCP to supply a written medical opinion to the employer is to provide the employer with a medical basis to aid in making a determination regarding the placement of a worker, and to assess the worker’s ability to use protective clothing and equipment. The employer must obtain the written opinion within 30 days of the examination; OSHA believes this requirement will provide the PLHCP sufficient time to receive and consider the results of any tests included in the examination, and allow the employer to take any necessary protective measures in a timely manner. The proposed requirement that the opinion be in written form would ensure that employers and workers have the benefit of this information. In addition, the proposed standard requires the employer to provide a copy of the PLHCP’s written opinion to the worker within two weeks after the employer receives it, to ensure that the worker has been informed of the results of the examination in a timely manner.

§1910.1024 (k)(7) Beryllium sensitization test results research.

Upon request by OSHA, employers must convey employees’ beryllium sensitization test results to OSHA for evaluation and analysis. Employers must remove employees’ names, social security

numbers, and other personally identifying information from the test results before conveying them to OSHA.

Purpose: The purpose of this provision is to ensure that the employer conveys the results of the medical tests to OSHA for evaluation and analysis at the request of the Assistant Secretary. The results of the tests may be used to evaluate the nature, variability, reliability, and relevance of the beryllium sensitization test results, to evaluate the effectiveness of the beryllium standard in reducing beryllium-related occupational disease, or for other scientific purposes. Results conveyed to OSHA must first be stripped of employees' names, social security numbers, and other identifying information. The burden for this requirement is very small.

§1910.1024 (m)(1)(i), (ii) Communication of hazards.

(1) **General.**(i) Chemical manufacturers, importers, distributors, and employers shall comply with all requirements of the HCS (29 CFR 1910.1200) for beryllium.

(ii) In classifying the hazards of beryllium, the employer shall address at least the following hazards: cancer; lung effects (CBD and acute beryllium disease); beryllium sensitization; skin sensitization; and skin, eye, and respiratory tract irritation.

(iii) Employers shall include beryllium in the hazard communication program established to comply with the HCS. Employers shall ensure that each employee has access to labels on containers of beryllium and to safety data sheets, and is trained in accordance with the requirements of the HCS (29 CFR 1910.1200) and paragraph (m)(4) of this section.²

§1910.1024 (m)(2) Warning signs.

(i) Posting. The employer shall provide and display warning signs at each approach to a regulated area so that each employee is able to read and understand the signs and take necessary protective steps before entering the area.

(ii) Sign specification.

(A) The employer shall ensure that the warning signs required by paragraph (m)(2)(i) of this standard are legible and readily visible.

(B) The employer shall ensure each warning sign required by paragraph (m)(2)(i) of this standard bears the following legend:

DANGER

BERYLLIUM

MAY CAUSE CANCER

² The Agency accounts for the burden hours and costs associated with compliance with the HCS, such as the development of a hazard communication program, under the Information Collection Request (ICR) for the HCS. OMB Control No. 1218-0072.

CAUSES DAMAGE TO LUNGS

AUTHORIZED PERSONNEL ONLY

**WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING AND
EQUIPMENT IN THIS AREA**

The proposed standard provides specific language for the required signs and labels, therefore, the Agency is exempted from estimating the burden hours and costs of this provision under 5 CFR 1320.3(c)(2) (“Controlling paperwork burden on the public”).

Purpose: Posting warning signs informs workers that they are entering a regulated area, and that they must have proper authorization before entering such an area. Warning signs allow workers and others to take the precautions necessary to avoid harmful beryllium exposures.

§1910.1024 (m)(3) Warning labels. The employer shall label each bag and container of clothing, equipment, and materials visibly contaminated with beryllium consistent with the HCS (29 CFR 1910.1200), and shall, at a minimum, include the following on the label:

DANGER

CONTAINS BERYLLIUM

MAY CAUSE CANCER

CAUSES DAMAGE TO LUNGS

AVOID CREATING DUST

DO NOT GET ON SKIN

The proposed standard provides specific language for the required signs and labels, therefore, the Agency is exempted from estimating the burden hours and costs of this provision under 5 CFR 1320.3(c)(2) (“Controlling paperwork burden on the public”).

Purpose: Warning labels inform downstream employers and workers of the hazards associated with beryllium, and that they may need to implement special practices to prevent or reduce beryllium exposure. Furthermore, the labels alert downstream employers that they may have an obligation to protect their workers under the standard.

§1910.1024 (m)(4) Employee information and training.

The requirement that employers provide training to workers under paragraph (m)(4), except for the access provision of (m)(4)(iv), is not considered to be a collection of information. OSHA is not taking burden for this activity under Item 12 of this Supporting Statement.

Paragraph (m)(4)(iv) requires the employer to make a copy of this standard and its appendices readily available at no cost to each employee and designated employee representative(s).

OSHA considers the requirement in §1910.1024(m)(4) that employers make a copy of the standard and its appendices to workers to be a public disclosure of information originally supplied by the Federal government to the employer for the purpose of disclosure to the public. Under 5 CFR §1320.3(c)(2), “Requirements by an agency for a person to obtain or compile information for the purpose of disclosure to members of the public or the public at large, through posting, notification, labeling or similar disclosure requirements constitute the “collection of information” whenever the same requirement to obtain or compile information would be a “collection of information” if the information were directly provided to the agency. The public disclosure of information originally supplied by the Federal government to the recipient for the purpose of disclosure to the public is not included within this definition.” Therefore, OSHA is taking no burden hours for this requirement.

§1910.1024 (n) Recordkeeping.

§1910.1024 (n)(1)(i), (ii), &(iii) Exposure Measurements.

(i) The employer shall maintain a record of all measurements taken to monitor employee exposure as prescribed in paragraph (d) of this standard.

(ii) This record shall include at least the following information:

- (A) The date of measurement for each sample taken;
- (B) The operation that is being monitored;
- (C) The sampling and analytical methods used and evidence of their accuracy;
- (D) The number, duration, and results of samples taken;
- (E) The type of personal protective clothing and equipment, including respirators, worn by monitored employees at the time of monitoring; and
- (F) The name, social security number, and job classification of each employee represented by the monitoring, indicating which employees were actually monitored.

(iii) The employer shall maintain this record as required by the Records Access standard (29 CFR 1910.1020(d)(1)(ii)).

§1910.1024 (n)(2)(i), (ii), & (iii) Historical Monitoring Data.

(i) The employer shall establish and maintain an accurate record of any historical data used to satisfy the initial monitoring requirements of paragraph (d)(2) of this standard.

(ii) The record shall demonstrate that the data comply with the requirements of paragraph (d)(2) of this standard.

(iii) The employer shall maintain this record as required by the Records Access standard (29 CFR 1910.1020).

§1910.1024 (n)(3)(i), (ii), & (iii) Objective Data.

(i) Where an employer uses objective data to satisfy the monitoring requirements of the standard, the employer shall establish and maintain a record of the objective data relied upon.

(ii) This record shall include at least the following information:

(A) The data relied upon;

(B) The beryllium-containing material in question;

(C) The source of the objective data;

(D) A description of the operation exempted from initial monitoring and how the data support the exemption; and

(E) Other information demonstrating that the data meet the requirements for objective data contained in paragraph (d)(2)(ii) of this standard.

(iii) The employer shall maintain this record as required by the Records Access standard (29 CFR 1910.1020).

Purpose: OSHA believes that exposure records are necessary and appropriate for protection of worker health, enforcement of the proposed standard, and development of information regarding the causes and prevention of occupational illnesses. Also, the Agency and others can use the records to identify illnesses and deaths that may be attributable to beryllium exposure, evaluate compliance programs, and assess the efficacy of the proposed standard. Establishing and maintaining records of air-monitoring data permit employers, workers, OSHA, and other interested parties (i.e., industry trade associations and worker unions, or comparable organizations) to identify the levels, durations, and extent of beryllium exposure, determine if existing controls are protecting workers or whether additional controls are necessary to provide the required protection, and assess the relationship between beryllium exposure and the subsequent development of diseases. These records also allow OSHA to ascertain whether employers are complying with the proposed standard, thereby ensuring that workers are receiving adequate protection from beryllium exposure.

These options are available for employers that have developed and maintained historical and/or objective data, and do not need to incur the additional burden of initial exposure monitoring because their data meet the proposed standard's requirements. If their data do not meet the proposed standard's requirements, OSHA believes employers will choose to conduct initial exposure monitoring in accordance with paragraph (d).

§1910.1024 (n)(4) (i), (ii), & (iii) Medical Surveillance.

(i) The employer shall establish and maintain a record for each employee covered by medical surveillance under paragraph (k) of this standard.

(ii) The record shall include the following information about the employee:

- (A) Name, social security number, and job classification;
- (B) A copy of all licensed physicians' written opinions; and
- (C) A copy of the information provided to the PLHCP as required by paragraph (k) (4) of this standard.

(iii) The employer shall ensure that medical records are maintained. in accordance with the Records Access standard (29 CFR 1910.1020).

Purpose: OSHA believes that medical-surveillance records, like exposure records, are necessary and appropriate for protection of worker health, enforcement of the Standards, and development of information regarding the causes and prevention of occupational illnesses. Worker access to medical-surveillance records helps protect workers because such records contribute to the evaluation of workers' health and enable workers and their health care providers to make informed health care decisions. Furthermore, the employer can evaluate medical-surveillance data for indications that workplace conditions are associated with increased risk of beryllium-related illnesses, and take appropriate corrective actions. Finally, the Agency and others can use the records to identify illnesses and deaths that may be attributable to respirable crystalline silica exposure, evaluate compliance programs, and assess the efficacy of the Standards.

The proposal is consistent with Section 6(b)(7) of the OSH Act (29 U.S.C. 655(b)(7)), which requires that, when appropriate, OSHA include medical-surveillance programs in its standards to determine whether exposure to the hazard addressed by the standard adversely affects the health of workers.

§1910.1024 (n)(5)(i) & (ii) Training.

(i) At the completion of any training required by this standard, the employer shall prepare a record that indicates the name, social security number, and job classification of each employee trained, the date the training was completed, and the topic of the training.

(ii) This record must be maintained for 3 years after the completion of training.

Purpose: OSHA believes that it is necessary to inform workers of the hazards of beryllium exposure, along with associated protective measures, so that workers understand how they can minimize potential health hazards. As part of an overall hazard-communication program, training serves to explain and reinforce the information presented on labels and in safety data sheets. These written forms of communication will be effective and relevant only when workers understand the information presented, and are aware of the actions the employer must take to avoid or minimize exposures, thereby reducing the possibility of experiencing adverse health effects.

This knowledge/training requirement is not considered to be a collection of information under the PRA-95; therefore, no burden hours or costs are assessed for this activity under Items 12 or 13 of this Supporting Statement.

§1910.1024 (n)(6) Employee Access to Exposure Monitoring and Medical Records.

Upon request, the employer shall make all records maintained as a requirement of this standard available for examination and copying to the Assistant Secretary, the Director, each employee, and each employee's designated representative(s) in accordance the Records Access standard (29 CFR 1910.1020).

Purpose: Employers must maintain all records, and make them available upon request to the employee, in accordance with 29 CFR 1910.1020, this includes the exposure monitoring records, medical records, and written exposure control plan.

§1910.1024 (n)(7) Transfer of Records. The employer shall comply with the requirements involving transfer of records set forth in the Records Access standard (29 CFR 1910.1020).

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 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 (29 CFR 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 the burden.

Employers may use improved information technology when establishing and maintaining the required records. The Agency wrote the paperwork requirements of the proposed standard in performance-oriented language, i.e., in terms of what data to collect, not how to record the data.

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

The information collection requirements of the proposed standard are specific to each employer and worker involved, and no other source or agency duplicates these requirements or can make the required information available to the Agency (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.

As part of the 2007 Small Business Regulatory Enforcement Fairness Act (SBREFA) panel process, the SBREFA Panel recommended that OSHA analyze a PEL-only standard as a regulatory alternative. The Panel also recommended that OSHA consider applying ancillary provisions of the proposed standard so as to minimize costs for small businesses where exposure levels are low (OSHA, 2008b). OSHA solicited public comments on all relevant issues, including health effects, risk assessment, significance of risk, technological and economic feasibility, and the provisions of the proposed regulatory text.

Medical surveillance was a subject of special concern to small entity representatives (SERs) during the SBREFA process, and the SBREFA Panel offered many comments and recommendations related to medical surveillance for OSHA's consideration. Table IX-30 of the Preamble to the Proposed Rule addresses the SBAR Panel recommendations and OSHA's response to those recommendations. OSHA seeks to ensure that the requirements of the final standard offer workers adequate medical surveillance while limiting the costs to employers.

6. Describe the consequences 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 proposed standard are the minimum frequencies that the Agency believes are necessary to ensure that employers and OSHA can effectively monitor the exposure and health status of workers, thereby preventing serious illness or death resulting from hazardous exposure to beryllium.

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 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.**

Under paragraph (d)(5) of the proposed standard, employers must inform workers, in writing or by posting, of the exposure-assessment results no later than 15 working days after obtaining the results. If these results indicate that a worker's exposures are above the PEL, the notification must state what corrective actions the employer is taking to reduce the worker's exposure to or below the PEL. Additionally, paragraph (h)(5)(iii) of the proposed standard requires employers to provide workers with a copy of the PLHCP's written opinion regarding their medical examination within two weeks after receipt.

8. If applicable, provide a copy and identify the data 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 three years -- even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

In accordance with 5 CFR 1320.11, OSHA is submitting a proposed Information Collection Request (ICR) to the Office of Management and Budget (OMB) for the information collection requirements associated with the proposed rules on beryllium, 29 CFR 1910.1024. As noted in the Section X of the preamble, "OMB Review Under the Paperwork Reduction Act of 1995," members of the public who wish to provide comments on this ICR must submit written comments to the Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for the Department of Labor, OSHA (RIN-1218 -AB76), Office of Management and Budget, Room 10235, Washington, DC 20503, Fax: 202-395-5806 (this is not a toll-free number), e-mail: OIRA_submission@omb.eop.gov. OSHA encourages commenters also to submit their comments on these paperwork requirements to the rulemaking docket, OSHA Docket Office (Docket Number OSHA-H005C-2006-0870), Room N-2625, 200 Constitution Avenue, NW., Washington, DC 20210, along with their comments on other parts of the proposed rule. Commenters also may submit their comments to OSHA at <http://www.regulations.gov>, the Federal eRulemaking portal. Comments submitted in response to the notice are public records; therefore, OSHA cautions commenters about submitting personal information such as Social Security numbers and date of birth. These comments also will become part of the rulemaking record, and will be available for public inspection and copying in the OSHA Docket Office and at <http://www.regulations.gov>. The Agency will respond to any comments received in response

to this notice. See item 5 for the discussion of SBREFA Panel.

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

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

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

To ensure that the personal information contained in medical records required by the proposed standard remains confidential, the Agency developed and implemented 29 CFR 1913.10 (“Rules of Agency Practice and Procedure Concerning OSHA Access to Employee Medical Records”) 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.

The paperwork requirements specified by the proposed standard do not require the collection of 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 costs to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.**

OSHA has based the determinations on its Preliminary Economic Analysis (“PEA”) for the rulemaking of Proposed Beryllium Standard, which is available in the rulemaking docket.³ The full PEA has been placed in OSHA rulemaking docket OSHA-H005C-2006-0870. This Supporting Statement provides a summary of the determinations made by the Agency for the burden hours, burden-hour cost, and capital (operation and maintenance) costs under Items 12 and 13 of this Supporting Statement.⁴

³The rulemaking docket will be available for public inspection and copying in the OSHA Docket Office and at <http://www.regulations.gov> (Docket Number: OSHA-H005C-2006-0870).

⁴ The PEA tables referenced in this Supporting Statement, may be downloaded from www.regulations.gov.

The proposed rule would affect employers and employees in many different industries across the economy. As described in Section IX.C and reported in Table IX-2 of the preamble, OSHA estimates that a total of 35,051 employees in 4,088 establishments are potentially at risk from exposure to beryllium.

For the sole purpose of calculating burden hours and costs under the Paperwork Reduction Act, this supporting statement has rounded certain numbers obtained from the PEA, as well as totals stated in the supporting statement equations. Such presentation makes it easier for the public to read and validate the supporting statement's burden hour and cost estimates.

Wage Rates

The Agency obtained the wage rates from its PEA of the Proposed Beryllium Standard. In all but a handful of cases (with the exceptions noted in the PEA), all wage costs come from the 2010 Occupational Employment Statistics (OES) of the Bureau of Labor Statistics and utilize the median wage for the appropriate occupation and NAICS. The wages used include a 30.35 percent markup for fringe benefits as a percentage of total compensation, which is the average percentage markup for fringe benefits for all civilian workers from the Bureau of Labor Statistics' 2010 Employer Costs for Employee Compensation.

Human Resources (HR) Manager (SOC: 11-3121)	\$70.44
Supervisors of Production and Operating Workers (SOC: 51-1011 ⁵)	\$37.11
Production Worker (SOC: 51-0000)	\$22.16
Clerical Worker (SOC: 43-4071)	\$19.97

OSHA has preliminarily concluded that the proposed PEL of 0.2 µg/m³ is technologically feasible for all affected industries and application groups. Thus, OSHA preliminarily concludes that engineering and work practices will be sufficient to reduce and maintain beryllium exposures to the proposed PEL of 0.2 µg/m³ or below in most operations most of the time in the affected industries.

A. Exposure Monitoring (§ 1910. 1024(d))

The proposed standard sets forth requirements for assessing worker exposures to beryllium and beryllium compounds. The proposed standard requires each employer to assess the exposure of any workers who are exposed, or may reasonably be expected to be exposed, to airborne concentrations of beryllium at or above the action level. In some cases, this requirement will

⁵ As stated earlier, all wage rates with no explicit source other than the given Standard Occupational Classification (SOC) are from the 2010 Occupational Employment Statistics (OES) of the Bureau of Labor Statistics (BLS, 2010a), and is the median wage for that SOC.

entail monitoring all exposed workers. In other cases, monitoring of “representative” workers is sufficient. However, OSHA assumes low current compliance with the proposed exposure-monitoring requirements.

1. Initial Exposure Monitoring (paragraph (d)(2) of §1910.1024)

The proposed provisions require employers to conduct initial exposure monitoring by performing initial monitoring of any workers who are exposed, or may reasonably be expected to be exposed, to beryllium at or above the action level. The employer shall conduct initial exposure monitoring to determine the 8-hour TWA exposure and 15-minute short-term exposure for each employee.

The proposed standard provides two exceptions to the requirement to conduct initial exposure monitoring. First, employers may rely on existing monitoring data to satisfy the requirement for an initial exposure monitoring if they monitor worker exposures within the previous 12 months under conditions that closely resemble those currently prevailing. Second, to meet the requirement for an initial exposure monitoring, the employer may use objective data that demonstrate that beryllium will not be released in airborne concentrations at or above the action level under any expected conditions of processing, use, or handling. These options are available for employers that have developed and maintained historical and/or objective data, and do not need to incur any additional burden for initial exposure monitoring because their data meet the requirements of the proposed standard. If their data do not meet the proposed standard’s requirements, OSHA believes employers will choose to conduct initial exposure monitoring in accordance with paragraph (d)(2)

The number of workers subject to initial monitoring (12,639) is first calculated by summing the number of at-risk workers⁶ (28,110) and workers below the action level (22,447).⁷ OSHA interprets the initial exposure monitoring as requiring first-year testing of at least one worker in each distinct job classification and work area who is, or may reasonably be expected to be, exposed to airborne concentrations of beryllium at or above the action level. The Agency estimates that, on average, there are four workers per work area; thus, approximately 25 percent of these workers (12,639 production workers) are subject to initial exposure monitoring. Each production worker will incur 30 minutes (0.5 hours) of lost work time during air monitoring (one time-weighted average (TWA) sample and two short-term exposure limit (STEL) samples), at a loaded hourly wage rate of \$22.16. Baseline non-compliance with this requirement is estimated to be 92 percent. The burden hours and cost associated with these provisions are:

Burden hours: 12,639 (workers sampled) x 0.92 (non-compliance rate) × 0.5 (hours of Production Worker time) = **5,814 hours**

⁶ The number of affected workers is shown in PEA Table III-11 in the column labeled “Affected Employees.” The total shown there is 35,051, but the number of dental labs is then adjusted to account for the fact that only about 25 percent of dental labs use beryllium-containing alloys (as shown in PEA Table V-10 and discussed in the text preceding that table). This adjustment for dental labs results in a total of 28,110 affected workers.

⁷ The percentage of workers in each sector and job category who are exposed below the action level of 0.1 µg/m³ is shown in PEA Table III-14, and this is used in conjunction with the estimates of the total number of affected employees (adjusted for dental labs not using beryllium-containing alloys) to determine the number of workers exposed below the action level.

One-Time Cost: 5,814 (hours) × \$22.16 (Production Worker wage) = **\$128,838**

2. Periodic Exposure Monitoring (paragraph (d)(3) of § 1910.1024)

The proposed beryllium standard requires the employer to assess worker exposure to beryllium on a periodic basis for workers exposed at or above the action level and at or below the TWA PEL. For periodic monitoring, if the initial monitoring reveals employee exposures to be at or above the action level and at or below the TWA permissible exposure limit (PEL) ($.2 \mu\text{g}/\text{m}^3$), the employer must perform periodic monitoring at least annually. Employers must continue monitoring until they can demonstrate that exposures are no longer at or above the action level and at or below the PEL.

OSHA estimates that each employer will conduct periodic exposure monitoring (a) once every 12 months when initial or subsequent exposure monitoring reveals that worker exposures are at or above the action level, but at or below the PEL. The number of workers subject to periodic exposure monitoring (1,324) is calculated as the number of workers at or above the action level (5,663) less those above the PEL after rule implementation (366 workers), divided by the number of workers per area (four).⁸ Each worker will incur 30 minutes (0.5 hours) of lost work time during air monitoring. Baseline non-compliance with this requirement is estimated to be 89 percent. The burden hours and cost associated with these provisions are:

Burden hours: 1,324 (workers sampled) × 1 (assessments per year) × 0.89 (non-compliance rate) × 0.5 (hours of Production Worker time) = **589 hours**

Annual Cost: 589 (hours) × \$22.16 (Production Worker wage) = **\$13,052**

3. Additional Exposure Monitoring (paragraphs (d)(4) of § 1910.1024)

The proposed beryllium standard requires the employer to conduct additional exposure monitoring whenever there is a change in the production, process, control equipment, personnel, or work practices that may result in new or additional exposures at or above the action level, or when the employer has any reason to suspect that a change may result in new or additional exposures at or above the action level, the employer must conduct additional monitoring.

The number of workers subject to additional exposure monitoring (703) is calculated as the number of at-risk workers⁹ (28,110) times 10 percent (the Agency's estimate of the percentage of workers who would require additional sampling each year). As in the case of initial exposure monitoring, the Agency estimates that, on average, there are four workers per work area; thus, approximately 25 percent of these workers (703 Production Workers) are subject to additional exposure monitoring each year. Each worker will incur 30 minutes (0.5 hours) of lost work time during air monitoring. Baseline non-compliance with this requirement is estimated to be 91 percent. The burden hours and cost associated with these provisions are:

⁸Sources: PEA Table III-15 and ERG "Exposure Monitoring Costs" spreadsheet.

⁹ The number of affected workers is shown in PEA Table III-11 in the column labeled "Affected Employees." The total shown there is 35,051, but the number of dental labs is then adjusted to account for the fact that only about 25 percent of dental labs use beryllium-containing alloys (as shown in PEA Table V-10 and discussed in the text preceding that table). This adjustment for dental labs results in a total of 28,110 affected workers.

Burden hours: 703 (workers sampled) × 1 (assessments per year) × 0.91 (non-compliance rate) × 0.5 (hours of Production Worker time) = **320 hours**

Annual Cost: 320 (hours) × \$22.16 (Production Worker wage) = **\$7,091**

4. Employee Notification of Monitoring Results (paragraph (d)(5)(i)&(ii) of §§ 1910.1024)

In the beryllium standard, employers must notify each employee whose exposure is measured or represented by the monitoring individually in writing of the monitoring results or shall post the monitoring results in an appropriate location that is accessible to each of these employees. In addition, where exposures exceed the TWA PEL or STEL, the written notification required by paragraph (d)(5)(i) of this standard shall include suspected or known sources of exposure and the corrective action(s) the employer has taken or will take to reduce exposure to or below the PELs, and where feasible corrective action exists but had not been implemented when the monitoring was conducted. These burden hours are included in the Human Resources Manager time under Item 12 C.1.

B. Beryllium Work Areas and Regulated Areas (§ 1910.1024)

1. Written Exposure Control Plan (§§ 1910.1024(f)(1), (i), (ii), & (iii))

Paragraph (f)(1) requires the employer to establish, implement, and maintain a written exposure control plan for beryllium work areas. The employer must include the following elements in the plan: an inventory of operations and job titles reasonably expected to have exposure, exposures at or above the action level, and exposures above the TWA PEL or STEL; procedures for minimizing cross-contamination, including but not limited to preventing the transfer of beryllium between surfaces, equipment, clothing, materials, and articles within beryllium work areas, keeping surfaces in the beryllium work area as free as practicable of beryllium, and minimizing the migration of beryllium from beryllium work areas to other locations within or outside the workplace; an inventory of engineering and work practice controls required by paragraph (f)(2) of this standard; and procedures for removal, laundering, storage, cleaning, repairing, and disposal of beryllium-contaminated personal protective clothing and equipment, including respirators.

a. Developing and Implementing a Written Exposure Control Plan

Per-Establishment Costs:

OSHA estimates that 2,598 establishments are potentially at risk from exposure to beryllium.¹⁰ It estimates that a Human Resource Manager, earning an hourly wage of \$70.44, would spend eight hours per establishment to develop and implement a written exposure control plan. Baseline non-compliance with this requirement is estimated to be 99 percent. Because this cost is only incurred one time, it is annualized.

¹⁰ The number of affected establishments is shown in PEA Table III-11 in the column labeled “Affected Establishments.” The total shown there is 4,088, but the number of dental labs is then adjusted to account for the fact that only about 25 percent of dental labs use beryllium-containing alloys (as shown in PEA Table V-10 and discussed in the text preceding that table). This adjustment for dental labs results in a total of 2,598 affected establishments.

Burden hours: 2,598 (written plans) × 0.99 (non-compliance rate) × 8 (hours of HR Manager time) = **20,576 hours**

One-Time Cost: 20,576 (hours) × \$70.44 (HR Manager wage) = **\$1,449,373**

Per-Employee Costs:

The cost to develop a written exposure control plan would also vary with the number of employees, with larger establishments having higher costs than smaller establishments. OSHA estimates that there are a total of 28,110 employees at risk of exposures at or above the action level and at or below the PELs annually. Managers are estimated to need 0.5 hours per employee to write the plan.

Burden hours: 28,110 (employees) × 0.99 (non-compliance rate) × 0.5 (hours of HR Manager time) = **13,914 hours**

Annual Cost: 13,914 (hours) × \$70.44 (HR Manager wage) = **\$980,102**

b. Maintaining and Updating a Written Exposure Control Plan

The employer must maintain and update the exposure control plan when: any change in production processes, materials, equipment, personnel, work practices, or control methods results or can reasonably be expected to result in new or additional exposures to beryllium; an employee is confirmed positive, is diagnosed with CBD, or shows signs or symptoms associated with exposure; or the employer has any reason to believe that new or additional exposures are occurring or will occur.

Employers must make a copy of the exposure plan accessible to each employee who is or can reasonably be expected to be exposed to airborne beryllium in accordance with OSHA's Access to Employee Exposure and Medical Records (Records Access) standard (29 CFR 1910.1020(e)). Burden hours and costs for employers to allow employees access to the exposure control plan are included in this item of the supporting statement under section D, Employee Access to Exposure Monitoring and Medical Records, subsection 2, Access to Records (§1910.1024(n) (6)).

OSHA estimates that there are a total of 28,110 employees at risk of exposures at or above the action level and at or below the PELs annually. Managers are estimated to need 12 minutes (0.2 hours) per affected employee per quarter, or 48 minutes (4 x 12), (0.8 hours) per affected employee per year to review and update the plan.

Burden hours: 28,110 (employees) × 0.92 (non-compliance rate) × 0.8 (hours of HR Manager time) = **20,689 hours**

Annual Cost: 20,689 (hours) × \$70.44 (HR Manager wage) = **\$1,457,333**

2. Personal Protective Clothing and Equipment (§1910.1024(h)(3)(iii))

In the proposed standard, workers are required to wear personal protective clothing and equipment if: exposure can reasonably be expected to exceed the TWA PEL or STEL; when

work clothing or skin may become visibly contaminated with beryllium, including during maintenance and repair activities or during non-routine tasks; or where employees' skin can reasonably be expected to be exposed to soluble beryllium compounds.

The proposed standard requires that all reusable protective clothing and equipment be cleaned, laundered, repaired, and replaced as needed to maintain their effectiveness. This includes such safeguards as transporting contaminated clothing in sealed and labeled impermeable bags and informing any third party businesses coming in contact with such materials of the risks associated with beryllium exposure.

The employer must inform in writing the persons or the business entities that launder, clean, or repair the protective clothing or equipment of the potentially harmful effects of exposure to airborne beryllium and contact with soluble beryllium compounds, as well as how the protective clothing and equipment must be handled in accordance with this standard.

There are 1,710 establishments potentially at risk from exposure to beryllium that will need to send out clothing and equipment for laundering, cleaning, or repair. OSHA estimates that it will take 10 minutes (0.17 hours) of a Clerical Worker's time to inform the person or business in writing of the potentially harmful effects of the laundering, cleaning or repair of the clothing or equipment. Baseline non-compliance with this requirement is estimated to be 23 percent.

Burden hours: $1,710 \text{ (establishments)} \times 0.23 \text{ (non-compliance rate)} \times 0.17 \text{ (hours of Clerical Worker time)} = \mathbf{67 \text{ hours}}$

Annual Cost: $67 \text{ (hours)} \times \$19.97 \text{ (Clerical Worker's wage)} = \mathbf{\$1,338}$

3. Medical Surveillance (§1910.1024 (k)(1))

Employers must make medical surveillance available at no cost, and at a reasonable time and place, for exposed workers. This includes but is not limited to employees who have worked in a regulated area for more than 30 days in the last 12 months; employees showing signs or symptoms of CBD; employees exposed to beryllium during an emergency; and employees who was exposed to airborne beryllium above $.2 \mu\text{g}/\text{m}^3$ for more than 30 days in a 12-month period for 5 years or more. In addition, employers must make available medical examinations for workers, and they must assure that a PLHCP performs all medical examinations and procedures required by the proposed standard.

The number of workers subject to initial medical surveillance in the first year and periodic surveillance in each year thereafter (4,528) is calculated as the sum of workers estimated to work in a regulated area/be above the PEL after the rule is effective (366) and workers who show signs and symptoms of CBD (4,162). OSHA estimated the examination¹¹ requires 125 minutes (or 2.08 hours) away from work for each employee each year to complete an initial medical examination. This includes time for traveling, a health history review, the physical exam, a beryllium lymphocyte proliferation test (BeLPT), the pulmonary function test, and employee time when the PLHCP explains the results of the medical examination to the employee. Baseline non-compliance with this requirement is estimated to be 91 percent. The burden hours and annual

¹¹ Proposed paragraph (k)(3) provides the content of examinations.

cost associated with these provisions are:

Annual Exams:

Burden hours: 4,528 (examinations) × 0.91 (non-compliance rate) × 2.08 (hours of Production Worker time) = **8,571 hours**

Annual Cost: 8,571 hours × \$22.16 (production worker wage) = **\$189,933**

Note: The Agency estimates that 10 percent of the standard medical examinations will lead to further tests recommended by the PLCHP¹² and are included in the cost and time of the 4,528 employees.

4. Information Provided to the PLHCP (§1910.1024 (k)(4))

In the proposed standard, the employer must ensure that the examining PLHCP has a copy of this standard and all appendices and shall provide the following information, if known: a description of the employee's former and current duties that relate to the employee's occupational exposure; the employee's former and current levels of occupational exposure; a description of any protective clothing and equipment, including respirators, used by the employee, including when and for how long the employee has used that protective clothing and equipment; and information from records of employment-related medical examinations previously provided to the employee, currently within the control of the employer, after obtaining a medical release from the employee.

Providing the PLHCP with exposure monitoring results, as required under paragraph (k)(4)(ii), will assist the physician completing the written medical opinion in determining if an employee is likely to be at risk of adverse effects from beryllium exposure at work. OSHA estimate that it will take 15 minutes (.25 hours) of a Supervisor's time to gather and make copies available the information needed for the PLHCP.

Burden hours: 4,528 (employees) × 0.91 (non-compliance rate) × 0.25 (hours of Supervisor time) = **1,030 hours**

Annual Cost: 1,030 (hours) × \$37.11 (Supervisor wage) = **\$38,223**

5. Licensed Physician's Written Medical Opinion. (§1910.1024 (k)(5) (i) & (iii))

The employer shall obtain a written medical opinion from the licensed physician within 30 days of the examination, which contains: (A) The licensed physician's opinion as to whether the employee has any detected medical condition that would place the employee at increased risk of CBD from further exposure; (B) Any recommended limitations on the employee's exposure, including the use and limitations of protective clothing or equipment, including respirators; and (C) A statement that the PLHCP has explained the results of the medical examination to the employee, including any tests conducted, any medical conditions related to exposure that require further evaluation or treatment, and any special provisions for use of protective clothing or equipment.

¹² These exposure monitoring unit costs are summarized in Table V-17 of the PEA.

The employer shall provide a copy of the licensed physician’s written medical opinion to the employee within two weeks after receiving it. The proposed requirement that the opinion be in written form is intended to ensure that employers and employees have the benefit of the same information and that no information gets lost in oral communications. Also, the written form ensures that the employee has been informed of the results of the examination in a timely manner.

There are 4,528 affected employees that the employer will need to provide a copy of the licensed physician’s written opinion. OSHA estimates that it will take 5 minutes (0.08 hour) of a Supervisor’s time to provide a copy of the information to the employee. Baseline non-compliance with this requirement is estimated to be 91 percent.

Supervisor:

Burden hours: $4,528 \text{ (employees)} \times 0.91 \text{ (non-compliance rate)} \times 0.08 \text{ (hours of Supervisor time)} = \mathbf{330 \text{ hours}}$

Annual Cost: $330 \text{ (hours)} \times \$37.11 \text{ (Supervisor wage)} = \mathbf{\$12,246}$

6. Beryllium sensitization test results research. (§1910.1024 (k)(7))

Upon request by OSHA, employers must convey employees’ beryllium sensitization test results to OSHA for evaluation and analysis. Employers must remove employees’ names, social security numbers, and other personally identifying information from the test results before conveying them to OSHA . The burden for conveying this information is small and most employers will not have the burden of relaying the beryllium sensitization test results to OSHA. For purposes of calculating burden hours and cost, it is estimated that only 4 employers will have to convey the information and it will take 15 minutes (0.25 hours) for each employer to convey the results to an OSHA representative.

Burden hours: $4 \text{ employers} \times 0.25 \text{ hour} = 1 \text{ hour}$

Cost: $1 \text{ hour} \times \$37.11 = \37

C. Recordkeeping §1910.1024 (n)

1. Exposure Measurements. §1910.1024 (n)(1)(i),(ii),&(iii)

(i) The employer shall maintain a record of all measurements taken to monitor employee exposure as prescribed in paragraph (d) of this standard. (ii) This record shall include at least the following information: (A) The date of measurement for each sample taken; (B) The operation that is being monitored; (C) The sampling and analytical methods used and evidence of their accuracy; (D) The number, duration, and results of samples taken; (E) The type of personal protective clothing and equipment, including respirators, worn by monitored employees at the time of monitoring; and (F) The name, social security number, and job classification of each employee represented by the monitoring, indicating which employees were actually monitored.

a. Initial Exposure Monitoring (paragraph (d)(2) of §1910.1024)

The number of workers subject to initial monitoring (12,639) is calculated by first summing the number of at-risk workers (28,110) and workers below the action level (22,447), and then multiplying by 25 percent to account for the fact that there is an average of four workers per work area. The Agency estimates that an HR manager will spend 15 minutes (0.25 hours) developing and maintaining records for employee records at a loaded hourly wage of \$70.44, which includes time to notify employees of the results of the exposure monitoring¹³. Baseline non-compliance with this requirement is estimated to be 92 percent. The burden hours and cost associated with these provisions are:

Burden hours: 12,639 (workers sampled) × 0.92 (non-compliance rate) × 0.25 (hours of HR Manager time) = **2,907 hours**

One-Time Cost: 2,907 (hours) × \$70.44 (HR Manager wage) = **\$204,769**

b. Periodic Exposure Monitoring (paragraph (d)(3) of §1910.1024)

The number of workers subject to periodic exposure monitoring (1,324) is calculated by first taking the difference between the number of workers at or above the action level (5,663) less those above the PEL after rule implementation (366 workers), and then multiplying by 25 percent to account for the fact that there is an average of four workers per work area. The Agency estimates that an HR manager will spend 15 minutes (0.25 hours) developing and maintaining employee monitoring records at a loaded hourly wage of \$70.44, which includes time to notify employees of the results of the exposure monitoring. Baseline non-compliance with this requirement is estimated to be 89 percent. The burden hours and cost associated with these provisions are:

Burden hours: 1,324 (workers sampled) × 1 (assessments per year) × 0.89 (non-compliance rate) × 0.25 (hours of HR Manager time) = **295 hours**

Annual Cost: 295 (hours) × \$70.44 (HR Manager wage) = **\$20,780**

c. Additional Exposure Monitoring (paragraphs (d)(4) of § 1910.1024)

The number of workers subject to additional exposure monitoring (703) is calculated by first multiplying the number of at-risk workers (28,110) times 10 percent (the Agency's estimate of the percentage of workers who would require additional sampling each year), and then multiplying by 25 percent to account for the fact that there is an average of four workers per work area. The Agency estimates that an HR manager will spend 15 minutes (0.25 hours) maintaining the relevant records at a loaded hourly wage of \$70.44, which includes time to notify employees of the results of the exposure monitoring. Baseline non-compliance with this requirement is estimated to be 91 percent. The burden hours and cost associated with these provisions are:

¹³ Where exposures exceed the TWA PEL or STEL, the written exposure monitoring notification shall include suspected or known sources of exposure and the corrective action(s) the employer has taken or will take to reduce exposure to or below the PELs, and where feasible corrective action exists but had not been implemented when the monitoring was conducted.

Burden hours: $703 \text{ (workers sampled)} \times 1 \text{ (assessments per year)} \times 0.91 \text{ (non-compliance rate)} \times 0.25 \text{ (hours of HR Manager time)} = \mathbf{160 \text{ hours}}$

Annual Cost: $160 \text{ (hours)} \times \$70.44 \text{ (HR Manager wage)} = \mathbf{\$11,270}$

2. Medical Surveillance (§1910.1024 (n)(4)(i), (ii), & (iii))

In proposed paragraph (n)(4), the employer shall establish and maintain a record for each employee covered by medical surveillance under paragraph (k) of this standard. The record shall include the following information about the employee: (A) Name, social security number, and job classification; (B) A copy of all licensed physicians' written opinions; and (C) A copy of the information provided to the PLHCP as required by paragraph (k) (4) of this standard.

a. HR Manager Time

An examination would require 15 minutes (or 0.25 hours) of a Human Resource manager's time to read, copy the PLHCP's and discuss the opinion for each employee and any necessary post-exam consultation with the employee. The total number of post-exam records is 4,528 exams. Baseline non-compliance with this requirement is estimated to be 91 percent.

Burden hours: $4,528 \text{ (exam records)} \times 0.91 \text{ (non-compliance rate)} \times 0.25 \text{ (hours of HR Manager time)} = \mathbf{1,030 \text{ hours}}$

Annual Cost: $1,030 \text{ (hours)} \times \$70.44 \text{ (HR Manager wage)} = \mathbf{\$72,553}$

b. Clerical Worker Time

Each file would require 5 minutes (0.08 hours) of a clerical worker's time to generate and maintain. The total number of medical exam records is 4,528. Baseline non-compliance with this requirement is estimated to be 91 percent.

Burden hours: $4,528 \text{ (exam records)} \times 0.91 \text{ (non-compliance rate)} \times 0.08 \text{ hours} = \mathbf{330 \text{ hours}}$

Annual Cost: $330 \text{ hours} \times \$19.97 \text{ (Clerical Worker wage)} = \mathbf{\$6,590}$

3. Training (§1910.1024 (n) (5) (i) & (ii))

In paragraph 1910.1024 (n) (5) (i) & (ii), at the completion of any training required by this standard, the employer shall prepare a record that indicates the name, social security number, and job classification of each employee trained, the date the training was completed, and the topic of the training. This record must be maintained for 3 years after the completion of training. OSHA estimates that there are 28,110 employees that will require a training record to be generated and maintained. It will take a clerical worker 5 minutes (0.08 hours) to prepare and maintain these records for each employee receiving training. Baseline non-compliance with this requirement is estimated to be 84 percent.

Burden hours: 28,110 (training records) × .84 (non-compliance rate) × 0.08 (hours of Clerical Worker time) = **1,889 hours**

Cost: 1,889 (hours) × \$19.97 (Clerical Worker wage) = **\$37,723**

D. Employee Access to Exposure Monitoring and Medical Records

1. Written Exposure Control Plan 1910.1024(f)(iii)

The employer shall make a copy of the exposure control plan accessible to each employee who is or can reasonably be expected to be exposed to airborne beryllium in accordance with OSHA's Access to Employee Exposure and Medical Records (Records Access) standard (29 CFR 1910.1020(e)).

OSHA estimates that employer will need to maintain a total of 28,110 written control plans for each affected employee, and that each written control plan will take 5 minutes (0.08 hours) of a clerical worker's time to provide to each worker at the time the plan is created. Baseline non-compliance with this requirement is estimated to be 99 percent. Because this cost is only incurred one time, it is annualized.

Burden hours: 28,110 written plans × 0.99 (non-compliance rate) × 0.08 (hours of Clerical Worker time) = **2,226 hours**

One-Time Cost: 2,226 (hours) × \$19.97 (Clerical Worker wage) = **\$44,453**

2. Access to Records (§1910.1024 (n) (6))

Upon request, the employer shall make all records maintained as a requirement of this standard available for examination and copying to the Assistant Secretary, the Director, each employee, and each employee's designated representative(s) in accordance the Records Access standard (29 CFR 1910.1020). Employers must maintain exposure records and make them available in accordance with 29 CFR 1910.1020. The Agency estimates that approximately five percent of the 4,528 exam records will be requested for further examination and copying. OSHA estimates that it takes 10 minutes (0.17 hours) of a Clerical Worker's time to disclose these records. Baseline non-compliance with this requirement is estimated to be 100 percent. The annual burden hours and cost for this task are estimated to be:

Burden hours: 226 (examination and copying) × 1 (non-compliance rate) × 0.17 (hours of Clerical Worker time) = **38 hours**

Annual Cost: 38 (hours) × \$19.97 (Clerical Worker wage) = **\$759**

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 on 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 collections services should be 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.

1. Exposure Monitoring

The Agency has taken a unit cost for analyzing the samples taken for exposure monitoring. This exposure monitoring requires that three samples be taken per worker: one time-weighted average (TWA) sample and two short-term exposure limit (STEL) samples. The unit cost for a TWA sample is estimated to be \$222.53, which is the sum of the cost for contract industrial hygienist services (\$85.57) and the associated lab fees (\$136.96). The unit cost to obtain the two STEL samples is estimated to be \$445.06 ($2 \times (\$136.96 + \$85.57)$) per sampled worker.¹⁴

Table A shows the number of responses per year, non-compliance rate, and total cost associated with each type of exposure monitoring sample. The number of workers affected by the exposure monitoring requirements varies, with 12,639 workers affected in the first year, 1,324 workers subject to periodic exposure monitoring, and 703 workers subject to additional exposure monitoring.¹⁵ The total cost is calculated by multiplying the number of workers affected by the cost per sample by the non-compliance rate. First year costs are then annualized, and the costs for each type of sample are summed to arrive at the total costs.

Total First Year/Startup Cost: \$7,762,737

Total Periodic Cost: \$786,421

Total Additional Cost: \$427,257

Total Cost: \$8,976,415

¹⁴ These exposure monitoring unit costs are summarized in Table V-16 of the PEA.

¹⁵ The derivation of the number of affected workers described in Section 12 above.

Table A. Direct Costs of Exposure Monitoring

	Frequency	Responses per Year	Non-Compliance Rate	Non-Compliance Responses per year	Unit Cost	Total Cost
Initial						
TWA Sample	First Year	12,639	92%	11,628	\$222.53	\$2,587,579
2 STEL Samples	First Year	12,639	92%	11,628	\$445.06	\$5,175,158
Subtotal	First Year	12,639		11,628		\$7,762,737
Periodic						
TWA Sample	Annual	1,324	89%	1,178	\$222.53	\$262,140
2 STEL Samples	Annual	1,324	89%	1,178	\$445.06	\$524,281
Subtotal	Annual	1,324		1,178		\$786,421
Additional						
TWA Sample	Annual	703	91%	640	\$222.53	\$142,419
2 STEL Samples	Annual	703	91%	640	\$445.06	\$284,838
Subtotal	Annual	703		640		\$427,257
Total						\$8,976,415

2. Medical Examinations

The Agency assumes that employers will incur costs for the medical exams associated with the medical surveillance provision of the rule. The unit cost associated with annual medical exams is \$467.03, which includes \$33.33 for gathering or updating work and medical history, \$100 for a full physical exam (encompassing both respiratory and skin requirements), \$54.69 for a pulmonary function test, \$259 for a BeLPT, and \$200 for all additional tests (collectively) that the PLHCP may recommend (Intellimed International, 2003, National Jewish Medical Center, 2005). For this last element, the Agency estimates that 10 percent of the standard medical examinations will lead to further tests recommended by the PLCHP.¹⁶

The Agency estimates that 4,528 workers will be subject to annual medical surveillance,¹⁷ and OSHA estimates a non-compliance rate of 0.91 (4,120 workers) so the total cost for these workers is \$1,924,164 (4,120 x \$467.03). The cost for the additional exams is included.

Total Annual Cost: \$1,924,164

3. Total Capital Costs

The total costs for this item are the sum of the costs for exposure monitoring and medical

¹⁶ These exposure monitoring unit costs are summarized in Table V-17 of the PEA.

¹⁷ The derivation of the number of affected workers described in Section 12B3 above.

examinations.

Total Cost: \$8,976,415+ \$1,924,164 = **\$10,900,579**

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

The Agency assumes that it will take a Health Specialist who is a GS 13 step 5 earning \$48.35¹⁸ per hour 15 minutes to review the Beryllium sensitization test results research records. Therefore, the cost to the Federal Government related to inspections is as follows:

Costs: 4 reports x \$48.35 x .25 hour = \$48

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

This is a new collection of information. The proposed standard includes collection of information requirements for: conducting worker exposure monitoring, establishing, implementing, and updating a written exposure control plans, conducting medical surveillance of workers, providing examining physicians with specific information, obtaining written physician's opinions and providing those opinions to workers and establishing and maintaining workers' exposure monitoring and medical surveillance records. The burden hours for the collection of information requirements contained in the proposed standard would result in a total program change of 80,776 hours and a program change cost of \$4,676,463. In addition, the total operation and maintenance cost for the exposure monitoring and the medical examinations provided under the proposed standard is \$10,900,579.

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

OSHA will not publish the information collected under the proposed standard.

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

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

¹⁸ Source: U.S. Office of Personnel Management, *General Schedule and Locality Tables, Salary Table 2015-RUS*, http://archive.opm.gov/oca/12tables/pdf/rus_h.pdf.

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.

Table B. Summary of Burden Hours, Burden-Hour Cost and Capital Cost Under Items 12 of this Supporting Statement

	Frequency	Basis	Respondent	Responses per Year	Non-Compliance Rate	Hours per Response	Hours per Year	Loaded Hourly Wage	Total Cost Under Item 12	Total responses
				<i>a</i>	<i>b</i>	<i>c</i>	$d = a \times b \times c$	<i>e</i>	$f = d \times e$	$g = a \times b$
A. Exposure Monitoring										
Initial	First Year	Employee	Production Worker	12,639	92%	0.5	5,814	\$22.16	\$128,838	11,628
Periodic	Annual	Employee	Production Worker	1,324	89%	0.5	589	\$22.16	\$13,052	1,178
Additional	Annual	Employee	Production Worker	703	91%	0.5	320	\$22.16	\$7,091	640
B. Beryllium Work Areas and Regulated Areas										
Written Exposure Control Plan										
Develop Plan	First Year	Establishment	HR Manager	2,598	99%	8	20,576	\$70.44	\$1,449,373	2,572
Develop Plan	First Year	Employee	HR Manager	28,110	99%	0.5	13,914	\$70.44	\$980,102	27,829
Update Plan	Annual	Employee	HR Manager	28,110	92%	0.8	20,689	\$70.44	\$1,457,333	25,861
PPE										
Notify Cleaners in Writing	Annual	Establishment	Clerical	1,710	23%	0.17	67	\$19.97	\$1,338	393
Medical Surveillance										
Medical Exam	Annual	Employee	Production Worker	4,528	91%	2.08	8,571	\$22.16	\$189,933	4,120
Beryllium Sensitization Test Results		Employee	Supervisor	4	n/a	0.25	1	\$37.11	\$37	4
Information Provided to the PLHCP										
Provide Information - Supervisor	Annual	Employee	Supervisor	4,528	91%	0.25	1,030	\$37.11	\$38,223	4,120
Licensed Physician's Written Medical Opinion										
Process Information - Supervisor	Annual	Employee	Supervisor	4,528	91%	0.08	330	\$37.11	\$12,246	4,120
C. Recordkeeping										
Exposure Monitoring										
Initial	First Year	Employee	HR Manager	12,639	92%	0.25	2,907	\$70.44	\$204,769	11,628
Periodic	Annual	Employee	HR Manager	1,324	89%	0.25	295	\$70.44	\$20,780	1,178

Table B. Summary of Burden Hours, Burden-Hour Cost and Capital Cost Under Items 12 of this Supporting Statement

	Frequency	Basis	Respondent	Responses per Year	Non-Compliance Rate	Hours per Response	Hours per Year	Loaded Hourly Wage	Total Cost Under Item 12	Total responses
Additional	Annual	Employee	HR Manager	703	91%	0.25	160	\$70.44	\$11,270	640
Medical Surveillance										
Medical Surveillance - HR Manager	Annual	Employee	HR Manager	4,528	91%	0.25	1,030	\$70.44	\$72,553	4,120
Medical Surveillance - Clerical	Annual	Employee	Clerical	4,528	91%	0.08	330	\$19.97	\$6,590	4,120
Training										
Training	Annual	Employee	Clerical	28,110	84%	0.08	1,889	\$19.97	\$37,723	23,612
Employee Access to Exposure Monitoring and Medical Records										
Written Exposure Control Plan	First Year	Employee	Clerical	28,110	99%	0.08	2,226	\$19.97	\$44,453	27,829
Access to Records	Annual	Establishment	Clerical	226	100%	0.17	38	\$19.97	\$759	226
Total							80,776		\$4,676,463	155,818