SUPPORTING STATEMENT FOR THE INFORMATION COLLECTION REQUIREMENTS OF THE ACRYLONITRILE STANDARD (29 CFR 1910.1045)[1] OFFICE OF MANAGEMENT AND BUDGET (OMB) CONTROL NO. 1218-0126 (May 2018)

This ICR seeks to extend authorization for this collection without change.

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

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

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

Under the authority granted by the OSH Act, the Agency published a standard for general industry that regulates Acrylonitrile (AN) exposure of employees (§ 1910.1045; "the Standard"). OSHA based the Standard on a determination that occupational exposure to AN poses a hazard to employees. In this regard, research demonstrates that AN exposure causes cancer in laboratory animals, and results in a higher-than-expected incidence of cancer in humans. Repeated or prolonged skin exposure to AN may also cause irritation and dermatitis in humans.

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

A. Exposure monitoring (§1910.1045(e))

Initial monitoring §1910.1045(e)(2) – Each employer who has a place of employment in which AN is present shall monitor each such workplace and work operation to accurately determine the airborne concentrations of AN to which employees may be exposed.

Purpose: Monitoring allows employers to identify areas and operations that may require additional reduction in airborne AN to meet the permissible exposure limit (PEL). The results of initial exposure monitoring also assist employers in determining the need for engineering controls, instituting or modifying work-practice controls, and in selecting appropriate respiratory protection to prevent workers from overexposure.

Frequency §1910.1045(e)(3(ii) - If the monitoring required by this section reveals employee exposure to be at or above the action level but at or below the permissible exposure limits, the employer must repeat such monitoring for each such employee at least every 6 months.

*Frequency §1910.1045(e)(3)(*iii) If the monitoring required by this section reveals employee exposure to be in excess of the permissible exposure limits, the employer must repeat these determinations for each such employee at least quarterly. The employer must continue these quarterly measurements until at least two consecutive measurements, taken at least seven (7) days apart, are at or below the permissible exposure limits, and thereafter the employer must monitor at least every 6 months.

Purpose: Periodic monitoring allows employers to determine if changes in processes, materials, or environmental conditions result in increased concentrations of airborne AN, and to evaluate the effectiveness of control methods selected to decrease these exposures. In addition, periodic exposure monitoring reminds both the employer and workers of the continuing need to protect against the hazards that could result from worker overexposure to AN. The results of exposure monitoring also provide examining physicians with information that may be useful in determining the etiology of an occupationally-related disease.

Additional monitoring §1910.1045(e)(4) - Whenever there has been a production, process, control, or personnel change which may result in new or additional exposures to AN, or

whenever the employer has any other reason to suspect a change which may result in new or additional exposures to AN, additional monitoring which complies with this paragraph shall be conducted.

Purpose: Additional monitoring ensures that the workplace is safe, or notifies the employer of the need to increase worker protection.

Employee notification §1910.1045(e)(5)

§1910.1045(e)(5)(i) - The employer must, within 15 working days after the receipt of the results of any monitoring performed under this section, notify each affected employee of these results either individually in writing or by posting the results in an appropriate location that is accessible to employees.

§1910.1045(e)(5)(ii) - Whenever the results indicate that the representative employee exposure exceeds the permissible exposure limits, the employer shall include in the written notice a statement that the permissible exposure limits were exceeded and a description of the corrective action being taken to reduce exposure to or below the permissible exposure limits.

Purpose: Written notices assure that workers receive accurate exposure data, and; in addition, provides them with information regarding the specific action the employer is taking to lower their exposure and furnish them with a safe and healthful workplace.

B. Compliance program (§1910.1045(g)(2))

§1910.1045(g)(2)(i) - The employer shall establish and implement a written program to reduce employee exposures to or below the permissible exposure limits solely by means of engineering and work practice controls, as required by paragraph (g)(1) of this section.

§1910.1045(g)(2)(ii) - Written plans for these compliance programs shall include at least the following:

§1910.1045(g)(2)(ii)(A) - A description of each operation or process resulting in employee exposure to AN above the permissible exposure limits;

§1910.1045(g)(2)(ii)(B) - An outline of the nature of the engineering controls and work practices to be applied to the operation or process in question;

§1910.1045(g)(2)(ii)(C) - A report of the technology considered in meeting the permissible exposure limits;

§1910.1045(g)(2)(ii)(D) - A schedule for implementation of engineering and work practice controls for the operation or process, which shall project completion no later than November 2, 1980; and

§1910.1045(g)(2)(ii)(E) - Other relevant information.

§1910.1045(g)(2)(iv) - Written plans shall be submitted upon request to the Assistant Secretary and the Director, and shall be available at the worksite for examination and copying by the Assistant Secretary, the Director, or any affected employee or representative.

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

§1910.1045(g)(2)(v) - The plans required by this paragraph must be revised and updated at least annually to reflect the current status of the program.

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

C. Respirator program (§1910.1045(h)(2))[1]

§1910.1045(h)(2)(i) - (i) The employer must implement a respiratory protection program in accordance with §1910.134(b) through (d) (except (d)(1)(iii), (d)(3)(iii)(b)(1), and (2)), and (f) through (m), which covers each employee required by this section to use a respirator

Purpose: Developing a respirator program will ensure that employers establish a standardized procedure for selecting, using, and maintaining respirators for each workplace requiring respirator use. Developing written procedures assures that employers implement a respirator program that meets the needs of their workers.

D. Emergency situations (§1910.1045(i))

Written plans §1910.1045(i)(1)(i) - A written plan for emergency situations shall be developed for each workplace where liquid AN is present. Appropriate portions of the plan shall be implemented in the event of an emergency.

1 The Agency accounts for the burden hours and cost resulting from the respiratory protection requirements under the Information Collection Request (ICR) for the Respiratory Protection Standard, OMB Control Number 1218-0099.

§1910.1045(i)(1)(ii) - The plan shall specifically provide that employees engaged in correcting emergency conditions shall be equipped as required in paragraph (h) of this section until the emergency is abated.

§1910.1045(i)(1)(iii) - Employees not engaged in correcting the emergency shall be evacuated from the area and shall not be permitted to return until the emergency is abated.

Purpose: Emergency plans provide workers with information (e.g., evacuation routes, appropriate respirators) for responding appropriately to an unexpected release of AN, thereby minimizing their AN exposures under these conditions.

E. Cleaning and replacement (§1910.1045(j)(2))

Informing laundry personnel §1910.1045(j)(2)(v) - The employer shall inform any person who launders or cleans protective clothing or equipment of the potentially harmful effects of exposure to AN.

Purpose: This information allows laundry personnel to protect themselves from AN exposure.

F. Medical surveillance (§1910.1045(n))

General §1910.1045(n)(1)(i) - The employer shall institute a program of medical surveillance for each employee who is or will be exposed to AN at or above the action level, without regard to the use of respirators. The employer shall provide each such employee with an opportunity for medical examinations and tests in accordance with this paragraph.

§1910.1045(n)(1)(ii) - The employer shall assure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and that they shall be provided without cost to the employee.

Initial examinations §1910.1045(n)(2) **-** At the time of initial assignment, or upon institution of the medical surveillance program, the employer shall provide each affected employee an opportunity for a medical examination, including at least the following elements:

§1910.1045(n)(2)(i) - A work history and medical history with special attention to skin, respiratory, and gastrointestinal systems, and those nonspecific symptoms, such as headache, nausea, vomiting, dizziness, weakness, or other central nervous system dysfunctions that may be associated with acute or with chronic exposure to AN;

§1910.1045(n)(2)(ii) - A complete physical examination giving particular attention to the peripheral and central nervous system, gastrointestinal system, respiratory system, skin, and thyroid;

§1910.1045(n)(2)(iii) - A 14- by 17-inch or other reasonably-sized standard film or digital posterior-anterior chest X-ray; and

§1910.1045(n)(2)(iv) - Further tests of the intestinal tract, including fecal occult blood screening, for all workers 40 years of age or older, and for any other affected employees for whom, in the opinion of the physician, such testing is appropriate.

Periodic examinations §1910.1045(n)(3)(i) - The employer shall provide the examinations specified in paragraphs (n)(2)(i)-(n)(2)(ii) and (n)(2)(iv) of this section at least annually for all employees specified in paragraph (n)(1) of this section.

§1910.1045(n)(3)(ii) - If an employee has not had the examination specified in paragraph (n)(2)(i)-(n)(2)(ii) and (n)(2)(iv) of this section within 6 months preceding termination of employment, the employer shall make such examination available to the employee prior to such termination.

Additional examinations §1910.1045(n)(4) - If the employee for any reason develops signs or symptoms which may be associated with exposure to AN, the employer shall provide an appropriate examination and emergency medical treatment.

Purpose: Documentation and maintenance of the medical-examination results provide a continuous record of worker health. Physicians use these records to determine the extent to which workers, since their last examination, experience health effects related to their AN exposure. Further, if symptoms of organic damage appear, the physician often needs information about a worker's previous medical conditions to make an accurate diagnosis of the new condition, ascertain its apparent cause, and identify a course of treatment.

Information provided to the physician (§1910.1045(n)(5)) - The employer shall provide the following information to the examining physician:

§1910.1045(n)(5)(i) - A copy of this standard and its appendixes;

§1910.1045(n)(5)(ii) - A description of the affected employee's duties as they relate to the employee's exposure;

§1910.1045(n)(5)(iii) - The employee's representative exposure level;

§1910.1045(n)(5)(iv) - The employee's anticipated or estimated exposure level (for preplacement examinations or in cases of exposure due to an emergency);

§1910.1045(n)(5)(v) - A description of any personal protective equipment used or to be used; and

§1910.1045(n)(5)(vi) - Information from previous medical examinations of the affected employee, which is not otherwise available to the examining physician.

Purpose: Making this information available to the physician assists the physician in evaluating the worker's health and fitness for specific job assignments involving AN exposure.

Additionally, if symptoms of an occupationally-related disease appear, the physician often needs information about a worker's previous medical conditions to make an accurate diagnosis of the new condition, its apparent cause, and the course of treatment required. Medical records also ensure that workers can determine whether or not they require treatment, or to evaluate the effectiveness of the employer's exposure-reduction program.

Physician's written opinion §1910.1045(n)(6)(i) - The employer shall obtain a written opinion from the examining physician which shall include:

> §1910.1045(n)(6)(i)(A) - The results of the medical examination and test performed;
>
> §1910.1045(n)(6)(i)(B) - The physician's opinion as to whether the employee has any detected medical condition(s) which would place the employee at an increased risk of material impairment of the employee's health from exposure to AN;
>
> §1910.1045(n)(6)(i)(C) - Any recommended limitations upon the employee's exposure to AN or upon the use of protective clothing and equipment such as respirators; and
>
> §1910.1045(n)(6)(i)(D) - A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

Purpose: Requiring the employer to obtain a physician's written opinion is to provide the employer with medical information to aid in determining the initial placement of workers, and to assess the worker's ability to use protective clothing and equipment. The physician's written opinion also provides information to the employer about whether or not the worker has a condition indicating overexposure to AN. The requirement that the physician's opinion be in writing permits retention of the information for later reference. Providing workers with a copy of the physician's written opinion informs them of the medical-examination results so that they can assist in determining the need for, and evaluate the effectiveness of, treatment or other interventions.

G. Employee information and training (§1910.1045(o))

Upon further consideration, the requirements that employers provide training to workers under paragraph (o)(1)(i),(ii),(iii), (iv) are not considered to be a collection of information. OSHA is not taking burden for this activity under Item 12 of this Supporting Statement.

H. Communication of Hazards (§1910.1045(p))[1]

1 The provisions containing the paperwork requirements associated with signs and labels specify the design, format, and specific language for these materials. Therefore, OSHA is taking no burden for these provisions because it is providing the information needed by employers to meet these requirements. (See "Controlling

Hazard communication—general. **§1910.1045(p)(1)(iii)** The employer shall include AN and AN-based materials in the program established to comply with the Hazard Communication Standard (HCS) (§1910.1200). The employer shall ensure that each employee has access to labels on containers of chemicals and substances associated with coke oven processes and to safety data sheets, and is trained in accordance with the provisions of HCS and paragraph (k) of this section. The employer shall ensure that at least the following hazard is addressed: Cancer.

§1910.1045(p)(2)(i) - The employer shall post signs to clearly indicate all workplaces where AN concentrations exceed the permissible exposure limits. The signs shall bear the following legend:

DANGER
ACRYLONITRILE (AN)
MAY CAUSE CANCER

RESPIRATORS PROTECTION MAY BE REQUIRED IN THIS AREA

AUTHORIZED PERSONNEL ONLY

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

§1910.1045(p)(2)(ii) - The employer shall assure that signs required by this paragraph (p)(2) are illuminated and cleaned as necessary so that the legend is readily visible.

*§*1910.1045(p)(2)(iii) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in paragraph (p)(2)(i) of this section:

DANGER
ACRYLONITRILE (AN)
CANCER HAZARD
AUTHORIZED PERSONNEL ONLY
RESIRATORY MAY BE REQUIRED

*§*1910.1045(p)(3) Labels. (i) the employer shall ensure that precautionary labels are in compliance with paragraph (p)(1)(i) of this section and are affixed to all containers of liquid AN and AN-based materials not exempted under paragraph (a)(2) of this section. The employer shall ensure that labels remain affixed when the materials are sold, distributed, or otherwise leave the employer's workplace.

(ii) Prior to June 1, 2015, employers may include the following information on precautionary labels required by this paragraph (p)(3) in lieu of the labeling requirements in paragraph (p)(1) of this section:

Paperwork Burden on the Public," 5 CFR 1320.3(c)(2).)

DANGER
CONTAINS ACRYLONITRILE (AN)
CANCER HAZARD

(iii) The employer shall ensure that the precautionary labels required by this paragraph (p) (3) are readily visible and legible.

Purpose: Warning labels inform downstream employers and workers of the hazards associated with AN, and that they may need to implement special practices to ensure against AN exposure. Furthermore, warning labels alert employers who, in the absence of such labels, may not know that AN is present in their workplace and, consequently, that they must comply with the Standard.

I. Recordkeeping (§1910.1045(q))

Objective data for exempted operations §1910.1045(q)(1)(i) - Where the processing, use, and handling of materials made from or containing AN are exempted pursuant to paragraph (a)(2)(ii) of this section, the employer shall establish and maintain an accurate record of objective data reasonably relied upon in support of the exemption.

§1910.1045(q)(1)(ii) - This record shall include at least the following information:

§1910.1045(q)(1)(ii)(A) - The material qualifying for exemption;

§1910.1045(q)(1)(ii)(B) - The source of the objective data;

§1910.1045(q)(1)(ii)(C) - The testing protocol, results of testing, and/or analysis of the material for the release of AN;

§1910.1045(q)(1)(ii)(D) - A description of the operation exempted and how the data supports the exemption; and

§1910.1045(q)(1)(ii)(E) - Other data relevant to the operations, materials, and processing covered by the exemption.

§1910.1045(q)(1)(iii) - The employer shall maintain this record for the duration of the employer's reliance upon such objective data.

Purpose: The purpose of this information collection requirement is to discourage abuse of the exemption. Under the recordkeeping provisions of the Standard, notably paragraph (q)(4)(ii), workers and their representatives have access to the information and data used by an employer to determine whether or not the exemption applies to their workplace. Such access enables workers to assure that the determinations are reasonable and the exemption warranted. Maintaining a record of the information and objective data used in making the determinations permits OSHA to ascertain whether or not the employer complied with the requirements of this provision.

Exposure monitoring §1910.1045(q)(2) – The employer shall establish and maintain an accurate record of all monitoring required by paragraph (e) of this section.

§1910.1045(q)(2)(ii) - This record shall include:

§1910.1045(q)(2)(ii)(A) - The dates, number, duration, and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure;

§1910.1045(q)(2)(ii)(B) - A description of the sampling and analytical methods used and the data relied upon to establish that the methods used meet the accuracy and precision requirements of paragraph (e)(6) of this section;

§1910.1045(q)(2)(ii)(C) - Type of respiratory protective devices worn, if any; and

§1910.1045(q)(2)(ii)(D) – Name, social security number, and job classification of the employee monitored and of all other employees whose exposure the measurement is intended to represent.

§1910.1045(q)(2)(iii) - The employer shall maintain this record for at least forty (40) years, or for the duration of employment plus twenty (20) years, whichever is longer.

Purpose: Maintaining these records for extended periods is necessary because of the long latency associated with the development of AN-related cancers.

Medical surveillance §1910.1045(q)(3)(i) - The employer shall establish and maintain an accurate record for each employee subject to medical surveillance as required by paragraph (n) of this section.

§1910.1045(q)(3)(ii) - This record shall include:

§1910.1045(q)(3)(ii)(A) - A copy of the physician's written opinions;

§1910.1045(q)(3)(ii)(B) - Any employee medical complaints related to exposure to AN;

§1910.1045(q)(3)(ii)(C) - A copy of the information provided to the physician as required by paragraph (n)(5) of this section; and

§1910.1045(q)(3)(ii)(D) - A copy of the employee's medical and work history.

Purpose: Exposure monitoring and medical surveillance provide both employers and workers with access to useful information. The exposure-monitoring and medical-surveillance records required by the Standard assist workers and their physicians in determining the need for treatment or other interventions as a result of the workers' exposure to AN. The information also

alerts employers if worker overexposure to AN occurs; thereby, enabling employers to implement controls to reduce AN exposures.

§1910.1045(q)(3)(iii) - The employer shall assure that this record be maintained for at least forty (40) years, or for the duration of employment plus twenty (20) years, whichever is longer.

Purpose: Maintaining these records for extended periods is necessary because of the long latency associated with the development of AN-related cancers.

Availability §1910.1045(q)(4(i)) - The employer shall make all records required to be maintained by this section available, upon request, to the Assistant Secretary and the Director for examination and copying.

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

§1910.1045(q)(4)(ii) - Records required by paragraphs (q)(1) through (q)(3) of this section shall be provided upon request to employees, designated representatives, and the Assistant Secretary in accordance with 29 CFR 1910.1020 (a) through (e) and (q) through (i). Records required by paragraph (q)(1) shall be provided in the same manner as exposure monitoring records.

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

Transfer of Records §1910.1045(q)(5)(i) and (ii)

§1910.1045(q)(5)(i) -Whenever the employer ceases to do business, the successor employer shall receive and retain all records required to be maintained by this section for the prescribed period.

§1910.1045(q)(5)(i) (ii) - The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

Purpose: 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 (§1910.1020), OMB Control No. 1218-0065.

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

Employers may use improved information technology, including electronic recording, when establishing or maintaining records. OSHA wrote the paperwork requirements of the Standard in performance-oriented language, i.e., in terms of what data to collect, not how to collect the data.

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

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

The information collection requirements of the 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.

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

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

The Agency believes that the information collection frequencies required by the Standard are the minimum frequencies necessary to effectively monitor the exposure and health status of workers exposed to AN, and; thereby, fulfill its mandate "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources" as specified by the OSH Act at 29 U.S.C. 651. Accordingly, if employers do not perform the required information collections, or delay in providing this information, workers will have an increased probability of developing cancer, dermatitis, and skin irritation because of their AN exposures.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- **Requiring respondents to report information to the agency more often than quarterly.**
- **Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it.**
- **Requiring respondents to submit more than an original and two copies of any document.**
- **Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years.**
- **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study.**
- **Requiring the use of a statistical data classification that has not been reviewed and approved by OMB.**
- **That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use.**
- **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.**

As specified in paragraph (e)(5) of the Standard, employers must notify each worker either individually in writing, or by posting the monitoring results within 15 working days after receiving the results. If the results show that a worker's exposure to AN exceeds the PEL, the employer must notify them of this finding, and inform them of the corrective actions they are taking to prevent overexposure.

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

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

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

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3506)(c)(2)(A)), OSHA published a notice in the Federal Register on March 8, 2018 (FR 83 9868) soliciting public comments on its proposal to extend the Office of Management and Budget's approval of the information collection requirement specified by the Acrylonitrile Standard (29 CFR 1910.1045). This notice was part of a preclearance consultation program that provided the general public and government agencies the opportunity to comment. No public comments were received .

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

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

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

To ensure that the personal information contained in medical records remains confidential, OSHA developed 29 CFR 1913.10 to regulate 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 reason sons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons form whom the information is requested, and any steps to be taken to obtain their consent.

None of the provisions in the Standard requires sensitive information.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**

- **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**

- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage-rate categories.**

Respondent Burden Hour and Cost Burden Determinations

The Agency determined the wage rate from mean hourly wage earnings to represent the cost of employee time. For the relevant standard occupational classification category, OSHA used the wage rates reported in the Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics (OES), May 2016 [date accessed: September 5, 2017]. (OES data is available at *https://www.bls.gov/oes/tables.htm*. To access a wage rate, select the year, "Occupation profiles," and the Standard Occupational Classification (SOC) code.)

To account for fringe benefits, the Agency used the Bureau of Labor Statistics' (BLS) *Occupational Employment Statistics (OES) (2017)*. Fringe markup is from the following BLS release: *Employer Costs for Employee Compensation* news release text; For release 10:00 AM (EDT), September 8, 2017 (https://www.bls.gov/news.release/ecec.nr0.htm). BLS reported that for civilian workers, fringe benefits accounted for 30.4 percent of total compensation and wages accounted for the remaining 69.6 percent. To calculate the loaded hourly wage for each occupation, the Agency divided the mean hourly wage by 69.6 percent.

In Table 1 is a summary of the how the wage rate estimates were derived for the information collection requirements specified by the Standard.

Table 1 – Estimated Wage Rates

WAGE HOUR ESTIMATES[2]				
Occupational	**Standard**	**Mean Hour**	**Fringe Benefits**	**Loaded hourly**

2 Source: *Employer Costs for Employee Compensation, Supplemetary Table 2.* U.S. Department of Labor, Bureau of Labor Statistics, May 2016

Title	**Occupation Code**	**Wage Rate**	**Multiplier**	**Wage Rate**
Supervisors	51-1011	$29.54	.696	$42.44
Secretaries and Administrative Assistants	43-6014	$17.38	.696	$24.97
Production Worker	51-000	$17.88	.696	$25.69
Industrial hygienist technician	29-9012	25.25	.696	$36.28

Table 2
Summary Data for Plants and Employees Associated with Sectors that Produce AN and AN-Based Materials[3]

Plants/Employees	AN-Production Sector	Acrylic-Fibers Sector	ABS/SAN Resins Sector[4]	Nitrile-Rubber Sector	Totals
Total no. of plants in each sector[5]	8	0[6]	6	6	20
Total no. of employees in each sector[7]	1400	0	828	636	2,864
No. of employees per plant in each sector[8]	175	0	138	106	419
Estimated no. of employees exposed to AN at or above the AL, but at or below the PEL, in each sector[9]	234	0	138	106	478
Estimated no. of employees exposed to AN above the PEL[10]	130	0	77	59	266

Regarding the time estimates for performing the wide variety of information collections required by the Standard, OSHA is using the time estimates from the previous ICR. These estimates appear to be reasonable because the Agency based them on data from the RIA, which was available for public review and comment when it published the final AN Standard. In addition, most of the firms engaged in performing the information have many years of experience in doing so; therefore, these times are probably upper-bound estimates.

3The following designations identify the four production sectors that produce AN or AN-based materials; AN production, Acrylic Fibers, ABS/SAN Resins, and Nitrile Rubber.

4Three of these plants produce both ABS and SAN Resins.

5Source:. IHS Chemical Economics Handbook Marketing Research Report, *Acrylonitrile* (2011), *Styrene-Acrylonitrile (SAN) Resins* (2011), and *Acrylonitrile-Butadiene-Styrene Resins* (2011) .

6Ibid. The only acrylic fiber plant in the United States closed in April, 2005.

7Because updated information was unavailable, the Agency estimated the total number of workers in each sector by multiplying the updated total number of plants in each sector by the number of workers per plant in each sector as presented in the previous ICR update (with the exception of the acrylic-fibers sector for which there are no existing plants).

8These estimates have been retained from the previous ICR update.

9Based on available sampling data, OSHA estimates that, on average, 16.7% of the total number of workers in each production sector have AN exposures at or above the AL, but at or below the PEL.

10Based on available sampling data, OSHA estimates that, on average, 9.3% of the total number of workers in each production sector have AN exposures above the PEL.

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

A. Exposure monitoring (§1910.1045(e))

The Agency used the data from Table 2 to determine the number of workers exposed at or above the AL and above the PEL. In addition, OSHA estimates that an industrial hygiene technician requires 1 hour to collect and analyze each sample and that an employer uses each exposure monitoring sample to represent the exposures of two workers (i.e., the worker from whom the industrial hygiene technician took the sample and another, similarly-situated, workers).

Initial monitoring (§1910.1045(e)(2))

Only new plants incur burden for initial monitoring. The Agency believes that no new plants will begin operations during the period covered by this ICR. Therefore, this paperwork requirement results in no employer burden or cost.

Periodic monitoring (§1910.1045(e)(3))

The Standard requires that employers provide semi-annual exposure monitoring to workers exposed to AN at or above the AL, but below the PEL, while workers exposed above the PEL must receive monitoring at least quarterly.

Burden hours: [(478 workers ÷ 2 workers per sample) × 1 hour × 2 (semi-annually)] + [(266 workers ÷ 2 workers per sample) × 1 hour × 4 (quarterly)] = 1,010 hours

Cost: 1,010 hours × $36.28 = $36,643

Additional monitoring (§1910.1045(e)(4))

The Agency assumes that each plant takes one additional exposure-monitoring sample (representing two workers) each year to determine if a change in production, process, control, or personnel increases the distribution or concentration of airborne AN. OSHA estimates that the total annual burden hours and cost of this paperwork requirement are:

Burden hours: 20 plants × 1 hour = 20 hours
Cost: 20 hours × $36.28= $726

Employee notification (§1910.1045(e)(5))

Employers may post monitoring results in a readily accessible location. OSHA assumes that each of the facilities have workers exposed above the AL but below the PEL; and, workers exposed above the PEL. Employers will satisfy the semi-annual posting requirements when they quarterly

post their workers monitoring results. OSHA also assumes that each of the 20 employers will conduct additional monitoring.

Burden hours: [(20 plants x 4 quarterly) + (20 plants x 1 annually)] × .08 hour to post = 8 hours
Cost: 8 hours × $24.97 = $200

B. Compliance program (§1910.1045(g)(2))

Table 1 indicates that 266 workers have AN exposures above the PEL. However, OSHA cannot determine at which plants these workers work. Therefore, for the purpose of this determination, the Agency assumes that each of the 20 plants have some workers exposed to AN above the PEL, and that each of these plants must update their compliance plans annually. OSHA estimates that a supervisor requires 30 minutes (.50 hour) to update each plan, resulting in the following total annual burden hour and cost estimates:

Burden hours: 20 plants × .50 hour × 1 annually = 10 hours
Cost: 10 hours × $42.44 = $424

C. Respirator program (§1910.1045(h)(2))

The Agency accounts for the burden hours and cost resulting from the respiratory protection requirements under the Information Collection Request (ICR) for the Respiratory Protection Standard, Office of Management and Budget (OMB) Control Number 1218-0099.

D. Emergency situations (§1910.1045(i))

Written plans (§1910.1045(i)(1))

The Agency assumes that the existing plants producing AN or AN-based materials developed their emergency plans during previous clearance periods. Therefore, OSHA is not attributing any burden hours or cost to this provision.

E. Cleaning and replacement (§1910.1045(j)(2)(v))

OSHA believes that employers who produce AN or AN-based materials contract with commercial laundries to clean protective clothing, and that a secretary takes five minutes (.08 hour) to notify a contract laundry once a year of the potentially harmful effects of AN exposure. Accordingly, this provision results in the following total burden hours and cost each year:

Burden hours: 20 plants × .08 hour = 2 hour
Cost: 2 hour × $24.97 = $50

F. Medical surveillance (§1910.1045(n))

OSHA estimates that a worker spends 30 minutes (0.50 hour) traveling to and from an offsite medical facility for each medical examination, and that the examination requires one (1) hour to administer (for a total of 1.50 hours).

Initial, periodic, employment-termination, and additional examinations (§1910.1045(n)(2), (n)(3), and (n)(4))

Based on the information in Table 1, the Agency estimates that 744 workers[11] must receive an initial or periodic examination each year. OSHA determined that the burden for the initial examinations to be 27.1% (202) and the periodic examinations to be 542 (744 minus 202) that the number of workers requiring these examinations once a year remains constant, and that the number of new workers needing initial examinations equals to the number of workers who terminate their employment.

The Agency assumes that 18.6% (138) of the workers will require additional medical examination. Therefore, the total annual burden hours and cost of these medical examinations, based on a worker wage rate of $24.05 (and assuming that the total examination takes 1.50 hours of a worker's on-duty time), are:

Burden hours: [(202 workers (initial examinations)) + (542 workers (periodic examinations)) + (138 workers (additional medical examinations))] = 882 worker exams × 1.50 hours = 1,323 hours
Cost: 1,323 hours × $25.69 = $33,988

Information provided to the physician (§1910.1045(n)(5))

The Agency assumes that for each medical examination, a secretary requires five minutes (.08 hour) to compile the required information and deliver it to the physician. With 882 initial, periodic, employment-termination, and additional examinations administered each year, the total annual burden hours and cost of this provision are:

Burden hours: 882 examinations x .08 hour = 71 hours
Cost: 71 hours × $24.97 = $1,773

Physician's written opinion (§1910.1045(n)(6))

OSHA assumes that a secretary takes five minutes (.08 hour) to file each of the 882 opinions in a worker's medical record, as well as deliver a copy of it to the worker, resulting in an annual total burden hour and cost estimate of:

Burden hours: 882 opinions ×.08 hour = 71 hours
Cost: 71 hours × $24.97 = $1,773

11Consisting of 390 employees exposed to AN at or above the AL, but below the PEL, and 217 employees exposed to AN at or above the PEL.

G. Employee information and training (§1910.1045(o))

The Agency assumes that employers covered by the Standard developed and updated their training programs during previous clearance periods. Therefore, OSHA is not attributing any burden hours or cost to this activity.

H. Signs and labels (§1910.1045(p))

The provisions containing the paperwork requirements associated with signs and labels specify the design, format, and specific language for these materials. Therefore, OSHA is taking no burden for these provisions because it is providing the information needed by employers to meet these requirements. (See Controlling Paperwork Burden on the Public5 CFR 1320.3(c)(2).)

I. Recordkeeping (§1910.1045(q))

Objective data for exempted operations (§1910.1045(q)(1))

The Agency believes that no employer currently implements this provision. Therefore, OSHA is not attributing any burden hours or cost to it.

Exposure monitoring (§1910.1045(q)(2))

OSHA estimates that a secretary takes five minutes (.08 hour) annually to collect, file, and maintain each of the 2,020 exposure-monitoring records.[12] Thus, the total burden hours and cost of this requirement each year are:

Burden hours: 2,020 records × .08 hour = 162 hours
Cost: 162 hours × $24.97 = $4,045

Medical surveillance (§1910.1045(q)(3))

The Agency determines that a secretary requires five minutes (.08 hour) annually to collect, file, and maintain each of the 882 medical-surveillance records,[13] resulting in a total yearly estimated hour burden and cost of:

Burden hours: 882 records × .08 hour = 71 hours
Cost: 71 hours × $24.97 = $1,773

12See “Employee monitoring (§1910.1045(e)(2)(3)and (4))” above for an explanation of the procedure used to determine the total number of exposure monitoring records (i.e., 2,020).

13 See “Information Provided to the Physician (§ 1910.1045 (n)(5))” above for an explanation of the procedure used to determine the total number of medical-surveillance records (i.e., 882).

Availability (§1910.1045(q)(4))

The Agency assumes that 10% of the workers exposed to AN at or above the AL (i.e., 744 workers × 10% = 74 workers),[14] request access to medical records, exposure-monitoring records, training materials, or written compliance plans each year. OSHA estimates that a secretary takes five minutes (.08 hour) to make the requested record available to each worker. Therefore, the total yearly burden hours and cost associated with making the required records available to workers is:

Burden hours: 74 worker-related requests × .08 hour = 6 hours
Cost: 6 hours × $24.97 (secretarial)) =$150

14See Table 1 above for details; this total includes the employees' designated representatives.

Table 3
Summary of Annual Burden Hour and Cost Estimates

Information Collection Requirement	Number of Respondents	Frequency per response	Total Responses	Time per response	Proposed Burden Hours	Wage Rate	Cost
A. Exposure Monitoring							
Initial monitoring	20	0	0	0	0	0	$0
Frequency	20	50.5	1,010	1 hour	1,010	$36.28	$36,643
Additional Monitoring	20	1	20	1 hour	20	$36.28	$726
Employee notification	20	5	100	5/60 hour	8	$24.97	$200
B. Compliance program	20	1	20	30/60 hour	10	$42.44	$424
C. Respiratory protection	20	0	0	0	0	$0	$0
D. Emergency situations	20			0		$0	
Written plans	20	0	0	0	0	$0	$0
E. Cleaning and replacement	20	1	20	5/60 hour	2	$24.97	$50
F. Medical surveillance	20			9		$0	
Initial, periodic, employment-termination, and additional exams	20	44.1	882	90/60 hour	1,323	$25.69	$33,988
Information provided to the physician	20	44.1	882	5/60 hour	71	$24.97	$1,773

Information Collection Requirement	Number of Respondents	Frequency per response	Total Responses	Time per response	Proposed Burden Hours	Wage Rate	Cost
Physician's written opinion	20	44.1	882	5/60 hour	71	$24.97	$1,773
G. Employee information and training	20	0	0	0	0	$0	$0
H. Signs and labels	20	0	0	0	0	$0	$0
I. Recordkeeping							
Objective data for exempted operations	20	0	0	0	0	$0	$0
Exposure monitoring	20	101	2,020	5/60 hour	162	$24.97	$4,045
Medical surveillance	20	44.1	882	5/60 hour	71	$24.97	$1773
Availability	20	3.7	74	5/60 hour	6	$24.97	$150
Totals			**6792**		**2,754**		**$80,845**

13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14).

- **The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of service component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**

- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondent (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate**.

- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

Operation and Maintenance Cost

This ICR assumes that the cost of a medical examination required by the Standard is about $208. This cost includes the medical history and physical examination ($60), a chest X-ray ($109), and a pulmonary-function test ($39).[0] Additionally, the cost for an OSHA-accredited laboratory to analyze a sample of airborne is estimated to be about $32.[0]

0[20] The Consumer Price Index (CPI) indicated a 3.0% increase in the price of professional medical services from January 2014 to 2017. Source: *CPI Detailed Report - February 2014* (http://www.bls.gov/cpi/cpid1402.pdf). OSHA applied this percentage to the components of a medical examination. As a result, the price increased for a medical history and physical examination from $58 to $60, and the pulmonary-function test increased from $38 to $39. However, for the cost of a chest X-ray, this ICR relies on the SIP IV Preliminary Economic Analysis which estimates that a chest x-ray costs $70.47, the existing ICR estimates a chest x-ray costs $102. The total cost for a medical examination is $164.42.

0The previous ICR estimated that the cost for laboratory analytical services was $29 ($27 per sample plus $2 for the charcoal-embedded sampling tube). Given the 6.7% increase in the Consumer Price Index discussed previously, it was assumed that the cost of laboratory services increased by 6.7% as well.

From these determinations (described below), the Agency estimates that the total capital cost of these requirements each year is $216,416. This total consists of $32,960 for analyzing exposure-monitoring samples, and $183,456 to administer medical examinations.

Exposure monitoring (§1910.1045(e))

Based on the determination that employers will take 1030 monitoring samplers,[0] the annual capital cost for analyzing these exposure monitoring samples is:

Cost: 1,030 samples × $32 = $32,960

With 882 medical examinations administered annually for workers covered by the Standard,[0] the capital cost of the medical examination burden each year:

Cost: 882 examinations × $208 = $183,456

Total cost is $32,960+ $183,456 = $216,416

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

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

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

There is an adjustment increase in the burden hour total from to 1,999 to 2,754 hours, a total increase of 755 hours. The increase is due to an adjustment of establishments and workers that were identified for the ICR.

There was an overall adjustment cost increase from to $169,554 to $216,416. The cost increase is the result of an increase in workers being covered by this standard, thus leading to an increase in both the number of exposure monitoring samples, 840 to 1,030, and in the number of worker medical examinations, from 594 to 882.

Table 4

0According to "Exposure monitoring (§ 1910.1045(q)(2))," employers will take a total of 478 semi- annual exposure monitoring samples, another total 532 quarterly monitoring samples and 20 additional monitoring samples for a total of 1,030 samples

0See "Information provided to the physician (§ 1910.1045 (n)(5))" for an explanation of the procedure used to determine the total number of employees receiving medical examinations (i.e., 882).

Summary of Annual Burden Hour and Cost Estimates

Information collection Requirement	Current Burden Hours	Proposed Burden Hours	Adjustment
A. Exposure Monitoring			
Initial monitoring	0	0	0
Frequency	798	1,010	212
Additional Monitoring	16	20	4
Employee notification	6	8	2
B. Compliance program	8	10	2
C. Respiratory protection	0	0	0
D. Emergency situations			
Written plans	0	0	0
E. Cleaning and replacement	1	2	1
F. Medical surveillance			
Initial, periodic, employment-termination, and additional exams	891	1,323	432
Information provided to the physician	48	71	23
Physician's written opinion	48	71	23
G. Employee information and training	0	0	0
H. Signs and labels	0	0	0
I. Recordkeeping			
Objective data for exempted operations	0	0	0
Exposure monitoring	130	162	32
Medical surveillance	48	71	23
Availability	5	6	1
Totals	**1,999**	**2,754**	**755**

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

OSHA will not publish the information collected under the Standard.

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

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

18. Explain each exception to the certification statement.

OSHA is not requesting an exception to the certification statement.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL MEHTODS

There are no collections of information employing statistical methods.