**Supporting Statement for**

**Respirator Program Records**

**Paperwork Reduction Act Submission**

This information collection request (ICR) seeks to revise an existing information collection.

**OMB Control Number:** 1219-0048

**Information Collection Request Title**: Respirator Program Records

**Type of OMB Review:** Revision

**Authority:**

30 CFR 56.5005 Control of exposure to airborne contaminants (Safety and Health Standards for Surface Metal and Nonmetal Mines).

30 CFR 57.5005 Control of exposure to airborne contaminants (Safety and Health Standards for Underground Metal and Nonmetal Mines).

**Collection Instrument(s):** None

**General Instructions**

**A Supporting Statement, including the text of the notice to the public required by 5 CFR 1320.5(a)(i)(iv) and its actual or estimated date of publication in the Federal Register, must accompany each request for approval of a collection of information. The Supporting Statement must be prepared in the format described below, and must contain the information specified in Section A below. If an item is not applicable, provide a brief explanation. When the question “Does this ICR contain surveys, censuses or employ statistical methods” is checked "Yes", Section B of the Supporting Statement must be completed. OMB reserves the right to require the submission of additional information with respect to any request for approval.**

**Specific Instructions**

**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.**

Section 103(h) of the Federal Mine Safety and Health Act of 1977, as amended (the Mine Act), 30 U.S.C. 813(h), authorizes the Mine Safety and Health Administration (MSHA) to collect information necessary to carry out its duty in protecting the safety and health of miners. Further, section 101(a) of the Mine Act, 30 U.S.C. 811(a), authorizes the Secretary of Labor (Secretary) to develop, promulgate, and revise as may be appropriate, improved mandatory health or safety standards for the protection of life and prevention of injuries in coal, metal, and nonmetal mines.

In order to fulfil Congress’ direction to protect miners, MSHA requires the collection of information associated with respirator program records.

Under the existing 30 CFR 56.5005 and 57.5005, a mine’s respirator program must be consistent with the requirements of ANSI Z88.2–1969, published by the American national Standards Institute entitled “American National Standards Practices for Respiratory Protection ANSI Z88.2–1969,” and approved on August 11, 1969.

In the currently approved information collection, MSHA lists three types of information collection burden – developing respiratory protection program, medical evaluation/fit testing records, and emergency respirator inspection records – and provides the estimated burden for each of the three information collection activities.

A final rule titled “Lowering Miners’ Exposure to Respirable Crystalline Silica and Improving Respiratory Protection” (RIN 1219-AB36) and issued on April 18, 2024 (89 FR 28218) made changes related to the currently approved information collection. The final rule amends 30 CFR 56.5005 and 57.5005 to incorporate by reference ASTM F3387-19, entitled “Standard Practice for Respiratory Protection,” because it is the most recent consensus standard developed by experts in government and professional associations on the selection, use, and maintenance for respiratory equipment. The final rule requires that approved respirators be selected, fitted, used, and maintained in accordance with the provision of a written respiratory protection program consistent with the requirements of ASTM F3387-19.

Under the revised 30 CFR 56.5005(b) and 57.5005(b), the ASTM F3387-19 incorporated by reference mandates that metal and nonmetal (MNM) mines where miners must wear respirators have written standard operating procedures (SOPs) for their respiratory programs; such miners who must wear respirators are fit-tested in a medical evaluation to the respirators that they will use; and mines perform emergency respirator inspections, among other things. Emergency respirator inspections are regular inspections of respirators reserved for use during emergencies; the inspections are used to ensure that respirators would properly function if needed during an emergency. Records are also required to be kept in connection with respirators, including revised written SOPs governing the selection and use of respirators; medical evaluation/fit testing results; records of emergency respirators inspection; and records relating to the respiratory programs consistent with ASTM F3387-19 section 14 requirements.

**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 purpose of this information collection is to collect four types of information from MNM mine operators: revised SOPs, ASTM recordkeeping, medical evaluation/fit testing records, and emergency respirator inspection records. The mine operator uses the information to properly issue respiratory protection to MNM miners who need to use personal protective equipment as a temporary measure when concentrations of respirable crystalline silica above the PEL, while engineering control measures are being developed and implemented or it is necessary by the nature of work involved (for example, occasional entry into hazardous atmospheres to perform maintenance or investigation). Medical evaluation/fit testing records are used to ensure that a respirator worn by an individual is the same brand, model, and size respirator that was worn when that individual successfully passed a medical evaluation and fit testing. Records of emergency respirator inspection are used to ensure that respirators are in proper working order when needed.

MSHA uses the information to determine compliance with the standard specified in 30 CFR 56.5005 and 57.5005.

**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.**

No information technology has been identified that would reduce the burden.

**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 2 above.**

No similar or duplicate information exists. Individual mines develop respirator programs and procedures based on their mine conditions.

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

The information collection provisions apply to all mine operations, both large and small. Congress intended that the Secretary enforce the law at all mining operations within the Agency’s jurisdiction regardless of size and that information collection and recordkeeping requirements be consistent with efficient and effective enforcement of the Mine Act. [See Rep. No. 181, 95th Cong., 1st Sess. 28 (1977)]. Section 103(e) of the Mine Act directs the Secretary not to impose an unreasonable burden on small businesses when obtaining any information under the Mine Act. MSHA considered the burden on small mines when developing the collection. However, MSHA judges that the burden on small mines cannot be reduced without adversely affecting MSHA’s dust control enforcement efforts. Hence, MSHA believes that these information collection requirements are imposed on all mining operations and do not have a greater impact on small businesses or other 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 health and safety of miners required to use respirators could be jeopardized without the collection of this information. The development of a written respirator protection program consistent with the requirements of ASTM F3387-19 that addresses the selection, use, and care of respirators is typically a one-time project. However, in instances where the levels or types of airborne contaminants in mines change significantly and the needs for respirator use change, mine operators are required to revise their respirator programs to address these new conditions and the mine operators will keep records in accordance with ASTM requirements. ASTM F3387-19 requires annual medical evaluation for fit testing for miners and emergency respirator inspection and keeping related records.

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

* **Requiring respondents to report information to the agency more often than quarterly;**
* **Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
* **Requiring respondents to submit more than an original and two copies of any document;**
* **Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;**
* **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
* **Requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
* **That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
* **Requiring respondents to submit proprietary trade secrets, 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.**
1.

This collection of information is consistent with the guidelines in 5 CFR 1320.5.

**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.**

On July 13, 2023, MSHA published the proposed rule titled “Lowering Miners’ Exposure to Respirable Crystalline Silica and Improving Respiratory Protection” in the Federal Register (88 FR 44852). The publication of the proposed rule notified the public that the current information collection requirements under OMB Control Number 1219-0048 were being revised in accordance with the Paperwork Reduction Act of 1995, and provided 60 days for the public to submit comments. MSHA did not receive comments opposing the changes from ANSI Z88.2–1969 to ASTM F3381-19 in 30 CFR 56.5005 or 57.5005 on the proposed ICR.

MSHA published a 60-day Federal Register notice on June 26, 2024 (89 FR 53446). MSHA received no comments.

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

MSHA does not provide payments or gifts to respondents.

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

There is no assurance of confidentiality provided to respondents.

**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.**

There are no questions of a sensitive nature.

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

* **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
* **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**
* **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included under Item 13.**

Respondents

Based on 2019 data, MSHA anticipates that on average 20 percent of the 11,525 active MNM mines, or 2,305 mines, will be affected by this ICR every year, because miners are expected to wear respirators in these mines. MSHA defines an active mine as one that had at least 520 employment hours (equivalent to 1 person working full time for a quarter of a year) in at least one quarter of 2019.

**Wage Rates Determinations[[1]](#footnote-3)**

MSHA used data from the May 2021 Occupational Employment and Wage Statistics (OEWS) published by the Bureau of Labor Statistics (BLS) for hourly wage rates[[2]](#footnote-4) and adjusted the rates for benefits[[3]](#footnote-5) and wage inflation.[[4]](#footnote-6) The wage rates are then inflated from 2021 constant dollars to 2022 constant dollars using the change in the GDP implicit price deflator between 2021 and 2022. The occupations listed below in Table 12-1 are those that were determined to be relevant for the cost calculations.

**Table 12-1. Hourly Wage Rates**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | A | B | C | D | E | A x B x C x D x E |
| Occupation | NAICS Code | Average Wage Rate\*  | Benefit Multiplier | Inflation Multiplier | Overhead Cost Multiplier | GDP Deflator 2021-2022\*\*\* | Loaded Hourly Wage Rate |
| MNM Industrial Hygienist [a] | 212200, 212300 | $39.43 | 1.49 | 1.043 | 1.17 | 1.071 | $76.74 |
| MNM Clerk [b] | 212200, 212300 | $19.71 | 1.49 | 1.043 | 1.17 | 1.071 | $38.37 |

Notes: MSHA used the latest 4-quarter moving average 2021Q2-2022Q2 to determine that 32.9 percent of total loaded wages are benefits for private industry workers in construction, extraction, farming, fishing, and forestry occupations. The benefit multiplier is 1.490= 1 + (0.329/(1-0.329)). The inflation multiplier was determined by using the employment price index from the most current quarter data is available, 2022Q2, divided by the base year and quarter of the OEWS employment and wage statistics, 2021Q2, for private industry workers in construction, extraction, farming, fishing, and forestry occupations, current dollar index. The inflation multiplier is 1.043 = 150.5/144.3. MSHA used the overhead multiplier of 1.17.

The 2021 wages were updated to 2022 constant dollars using the change in the GDP implicit price deflator of 1.071 (=117.996/110.220) between 2021 and 2022.

[a] The Standard Occupation Code (SOC) used for this occupation is (19-5011).

[b] The Standard Occupation Code (SOC) used for this occupation is (43-9061).

\*The 90th percentile wage rate was used for safety supervisor to indicate a supervisor from the Occupational Health and Safety Specialists occupational group. This was done due to the complexity of the required tasks.

**Hour Burden**

Respirator Protection Program Revising SOPs

A respirator program addresses the selection, use, and care of respirators. In instances where the levels or types of airborne contaminants in mines change significantly, mine operators may be required to amend their respirator programs to address these new conditions. MSHA has reference materials readily available to the mine operator. Most operators initially prepare these SOPs based on the employer responsibility recommended requirements contained in ASTM F3387-19 section 7, which references the elements of a written SOP. Respirator manufacturers also provide detailed instructions with each respirator on proper use and fitting.

Information collection costs of respirator protection program about respirable crystalline silica are captured in an ICR under OMB control number 1219-0156 for MNM and coal mines.

MSHA estimates that on average 2,305 MNM mines will have to revise their written SOPs detailing their respiratory protection program each year regarding airborne contaminants other than respirable crystalline silica. Based on MSHA’s experience, MSHA estimates that industrial hygienists will spend an average of 4 hours per year to revise and update their written SOPs.

**Table 12-2. Estimated Annual Respondent Hour and Cost Burden, Revise SOPs**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Activity (Occupation) | No. of Respondents (MNM Mines) | No. of Responses per Respondent | Total Responses (Revised SOPs) | Average Burden (Hours) | Total Burden (Hours) | Hourly Wage Rate | Total Burden Cost |
| Revised SOPs (Industrial hygienist) | 2,305 | 1 | 2,305 | 4 | 9,220.00 | $76.74 | $707,564.34 |
| ***Subtotal (Rounded)*** | ***2,305*** |  | ***2,305*** |  | ***9,220*** |  | ***$707,564*** |

Records of Medical Evaluation and Fit Testing

Under ASTM F3387-19 section 7, a SOP must include information necessary, as appropriate, for the proper use of respirators, including written records of medical evaluations and fit testing of tight-fitting respirators. Mine operators are required to fit test any miner who will be wearing a respirator and make a record of these tests, after a medical evaluation establishing the miner’s ability to wear a respirator. Miners are required to be fit-tested annually.

Information collection costs of medical evaluation and fit testing for respirable crystalline silica are captured in an ICR under OMB control number 1219-0156 for MNM and coal mines.

MSHA estimates that, on average, there will be 5 miners (responses) per MNM mine and that recording each response will take 15 minutes for an industrial hygienist to administer fit-testing and record the results.

**Table 12-3. Estimated Annual Respondent Hour and Cost Burden, Records of Medical Evaluation and Fit Testing**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Activity (Occupation) | No. of Respondents (MNM Mines) | No. of Responses per Respondent | Total Responses (Records) | Average Burden (Hours) | Total Burden (Hours) | Hourly Wage Rate | Total Burden Cost |
| Medical Evaluation and Fit Testing Records (Industrial Hygienist) | 2,305 | 5 | 11,525 | 0.25 | 2,881.25 | $76.74 | $221,113.86 |
| ***Subtotal (Rounded)*** | ***2,305*** |  | ***11,525*** |  | ***2,881*** |  | ***$221,114*** |

Emergency Respirator Inspections

Under ASTM F3387-19 section 7.3.4, a written SOP must include operating procedure elements for emergency respirator for all emergency use and anticipated emergency use.

MSHA estimates that there will be 12 tests per year per mine and that each response will take an industrial hygienist 5 minutes to complete inspection records.

**Table 12-4. Estimated Annual Respondent Hour and Cost Burden, Emergency Respirator Inspection Records**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Activity (Occupation) | No. of Respondents (MNM Mines) | No. of Responses per Respondent | Total Responses (Records) | Average Burden (Minutes) | Total Burden (Hours) | Hourly Wage Rate | Total Burden Cost |
| Emergency Respirator Inspection Records (Industrial Hygienist) | 2,305 | 12 | 27,660 | 5 | 2,305.00 | $76.74 | $176,891.09 |
| ***Subtotal (Rounded)*** | ***2,305*** |  | ***27,660*** |  | ***2,305*** |  | ***$176,891*** |

ASTM Recordkeeping

Under ASTM F3387-19 section 14, the mine operator must establish a records retention program including applicable records of respiratory protection programs that meet ASTM requirements. Details of each record are described in other sections of ASTM F3387-19 and are specific to the requirements of those sections. The records must be kept in a manner consistent with current regulatory requirements and company policies.

ASTM recordkeeping costs of respiratory protection programs in this information collection cover all airborne containments excluding respiratory crystalline silica. ASTM recordkeeping costs related to respiratory crystalline silica is covered in ICR 1219-0156.

MSHA estimates that 2,305 MNM mines must carry out recordkeeping related to ASTM requirements. MSHA estimates that it will take a clerk 4 hours per year to keep records in accordance with ASTM F3387-19 requirements.

**Table 12-5. Estimated Annual Respondent Hour and Cost Burden, ASTM Recordkeeping**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Activity (Occupation) | No. of Respondents (MNM Mines) | No. of Responses per Respondent | Total Responses (Records) | Average Burden (Hours) | Total Burden (Hours) | Hourly Wage Rate | Total Burden Cost |
| ASTM Recordkeeping (Clerk) | 2,305 | 1 | 2,305 | 4 | 9,220.00 | $38.37 | $353,739.55 |
| ***Subtotal (Rounded)*** | ***2,305*** |  | ***2,305*** |  | ***9,220*** |  | ***$353,740*** |

**Hour Burden Summary**

The annual respondent hour and cost burden in summarized in Table 12-6.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Activity  | No. of Respondents  | No. of Responses per Respondent | Total Responses  | Average Burden (Hours) | Total Burden (Hours) | Hourly Wage Rate | Total Burden Cost |
| Revise SOPs | 2,305 | 1 | 2,305 | 4.00 | 9,220.00 | $76.74 | $707,564.34 |
| Medical Evaluation and Fit Testing Records | 2,305 | 5 | 11,525 | 0.25 | 2,881.25 | $76.74 | $221,113.86 |
| Emergency Respirator Inspection Records | 2,305 | 12 | 27,660 | 0.08 | 2,305.00 | $76.74 | $176,891.09 |
| ASTM Recordkeeping | 2,305 | 1 | 2,305 | 4.00 | 9,220.00 | $38.37 | $353,739.55 |
| ***Total (Rounded)*** | ***2,305*** |  | ***43,795*** |  | ***23,626*** |  | ***$1,459,309*** |

**13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).**

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

MSHA estimates that the capital costs associated with this collection of information remains unchanged, assuming that a small number of mines may replace respirator fit-test equipment, as needed.

**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.**

MSHA personnel examine records during routine inspections, and there is no additional cost to the Federal government associated with this burden.

**15. Explain the reasons for any program changes or adjustments reported on the burden worksheet.**

Respondents: The estimated annual number of respondents increased from 350 to 2,305 due to the update from ANSI to ASTM standards and a recalculation of how many mines are expected to have a respiratory protection program.

Responses: The estimated annual number of responses increased from 6,500 to 43,795 due to the increase in the number of respondents.

Time Burden: The estimated annual time burden increased from 2,588 hours to 23,626 hours due to the increase in the number of respondents.

Burden Costs: The estimated annual burden costs increased from $301,298 to $1,459,309 due to the increase in the time burden.

Other Burden Costs: The estimated annual other burden costs remained at $140,000.

**Table 15-1. Summary of Changes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Currently Approved ICR | Revised ICR | Difference |
| Number of Respondents | 350 | 2,305 | 1,955 |
| Number of Responses | 6,300 | 43,795 | 37,495 |
| Annual Time Burden | 3,588 | 23,626 | 20,039 |
| Annual Burden Costs | $301,298 | $1,459,309 | $1,158,010 |
| Annual Other Burden Costs  | $140,000 | $140,000 | $0 |
|  |  |  |  |
| Federal Costs | $0 | $0 | $0 |
| Federal Hours | $0 | $0 | $0 |

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

MSHA does not intend to publish the results of this ICR.

**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.**

MSHA associates no forms with this collection.

**18. Explain each exception to the topics of the certification statement identified in “Certification for Paperwork Reduction Act Submissions.”**

There are no exceptions to the certification statement on the topics of the certification statement identified in “Certification for Paperwork Reduction Act Submissions.”

**B. Collection of Information Employing Statistical Methods**

There is no statistical methodology involved in this collection.

1. For all wage rates, MSHA uses the relevant precision throughout the calculation to avoid compound rounding errors and rounds at the final rate value. Displayed intermediate calculation values are presented to explain the calculation and are representative, but the final rate value reflects the correct rounding and final estimate. [↑](#footnote-ref-3)
2. To obtain OEWS data, follow BLS’s directions in its Frequently Asked Questions: “E. How to get OEWS data. 4. What are the different ways to obtain OEWS estimates from this website?” at <https://www.bls.gov/oes/oes_ques.htm>. [↑](#footnote-ref-4)
3. The benefit multiplier comes from BLS Employer Costs for Employee Compensation accessed by menu at <http://data.bls.gov/cgi-bin/srgate> or directly at <http://download.bls.gov/pub/time.series/cm/cm.data.0.Current>. Insert the data series CMU2030000405000D and CMU2030000405000P, Private Industry Total benefits for Construction, extraction, farming, fishing, and forestry occupations, which is divided by 100 to convert to a decimal value. MSHA used the latest 4-quarter moving average to determine what percent of total loaded wages are benefits. MSHA computes the benefit multiplier with a number of detailed calculations, but it may be approximated with the formula 1 + (benefit percentage/(1-benefit percentage)). [↑](#footnote-ref-5)
4. Wage inflation is the change in Series ID: CIS2020000405000I; Seasonally adjusted; Series Title: Wages and salaries for Private industry workers in Construction, extraction, farming, fishing, and forestry occupations, Index. (<https://data.bls.gov/cgi-bin/srgate> ; Inflation Multiplier = (Current Quarter Cost Index Value / OEWS Wage Base Quarter Index Value). [↑](#footnote-ref-6)