Safety Standards for Underground Coal Mine Ventilation- Belt Entry Used as an Intake Air Course to Ventilate Working Sections and Areas Where Mechanized Mining Equipment is Being Installed or Removed
OMB Control Number: 1219-0138
OMB Expiration Date: 12/31/2023

Supporting Statement for
Paperwork Reduction Act Submission

This ICR seeks to extend, without change, an existing information collection request.

OMB Control Number: 1219-0138

Information Collection Request Title: Safety Standards for Underground Coal Mine Ventilation - Belt Entry Used as an Intake Air Course to Ventilate Working Sections and Areas Where Mechanized Mining Equipment is Being Installed or Removed

OMB Type of Review: Extension

Authority:
30 CFR 75.350 - Belt air course ventilation.
30 CFR 75.351 - Atmospheric monitoring systems.
30 CFR 75.352 - Actions in response to AMS malfunction, alert, or alarm signals.
30 CFR 75.371 - Mine ventilation plan; contents.

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 of each regulation mandating or authorizing the collection of information.

Safety Standards for Underground Coal Mine Ventilation- Belt Entry Used as an Intake Air Course to Ventilate Working Sections and Areas Where Mechanized Mining Equipment is Being Installed or Removed
OMB Control Number: 1219-0138
OMB Expiration Date: 12/31/2023

Section 103(h) of the Federal Mine Safety and Health Act of 1977 (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, 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 and metal and nonmetal mines.

MSHA safety standards for ventilation of underground coal mines establish additional protective measures that mine operators must follow if they want to use belt air for ventilation purposes. 30 CFR 75.350, 75.351, 75.352, and 75.371 contain paperwork requirements to ensure that mine operators are in compliance with the ventilation standards.

30 CFR 75.350(a)(2) requires that the air velocity in the belt entry must be at least 50 feet per minute. When requested by the mine operator, the district manager may approve lower velocities in the ventilation plan based on specific mine conditions.

30 CFR 75.350(b) requires that the use of air from a belt air course to ventilate a working section, or an area where mechanized mining equipment is being installed or removed, is permitted only when evaluated and approved by the district manager in the mine ventilation plan. The mine operator must include in a ventilation plan a justification that the use of air from a belt entry would afford at least the same measure of protection as where belt haulage entries are not used to ventilate working places.

30 CFR 75.350(b)(2) requires all miners to be trained annually in the basic operating principles of the AMS, including the actions required in the event of activation of any AMS alert or alarm signal. It must be conducted as part of a miner's new miner training (30 CFR 48.5), experienced miner training (30 CFR 48.6), or annual refresher training (30 CFR 48.8).

30 CFR 75.350(b)(3)(iii) sets the average concentration of respirable dust in the belt air course and requires that permanent designated areas for dust measurement must be specified and approved in the ventilation plan.

30 CFR 75.350(b)(6) requires that the ventilation plan must include the locations for measuring air quantities.

30 CFR 75.350(b)(7) and (8) requires that the air velocity in the belt entry must be at least 100 feet per minute and not exceed 1,000 feet per minute. When requested by the mine operator, the district manager may approve lower or higher velocities in the ventilation plan based on specific mine conditions.

30 CFR 75.350(c) requires that the mine ventilation plan must include the location and use of point-feed regulators, if additional intake air is added to the belt air course through a point-feed regulator.

30 CFR 75.350(d)(1) requires that the ventilation plan must include the district manager approval of a second point monitored for carbon monoxide (CO) or smoke at a distance less than 1,000 feet upwind of the point-feed regulator, based on mine specific conditions.

30 CFR 75.350(d)(5) requires that the ventilation plan must include information regarding the location(s) and use of point-feed regulator(s) if the air through the point-feed regulator enters a belt air course. The location(s) and use of point-feed regulator(s) must be shown on the mine ventilation map.

30 CFR 75.351(b)(3) requires a mine operator to post a map or schematic, at a designated surface location, which shows the locations and type of Atmospheric Monitoring System (AMS) sensors at each location and the intended air flow direction at these locations. This map or schematic must be updated within 24 hours of any change in this information.

30 CFR 75.351(b)(4) requires that contact information for AMS operator and other appropriate personnel must be provided at the designated surface location.

30 CFR 75.351(e) requires that the locations in any entry that is part of the belt air course to be specified in the mine ventilation plan.

30 CFR 75.351(i)(2) establishes that reduced alert and alarm setting approved by the district manager may be required for carbon monoxide sensors identified in the mine ventilation plan.

30 CFR 75.351(j) requires approved carbon monoxide ambient levels and the means to determine those levels in the mine ventilation plan.

30 CFR 75.351(m) permits a mine to incorporate time delays into the AMS, when a demonstrated need exists. These time delays must only be used to account for non-fire related carbon monoxide alert and alarm sensor signals. These time delays are limited to no more than three minutes. The use and length of any time delays, or other techniques or methods which eliminate or reduce the need for time delays, must be specified and approved in the mine ventilation plan.

30 CFR 75.351(n)(2) and 30 CFR 75.351(n)(3) require that alarms for AMS be tested every 7 days and carbon monoxide, smoke, or methane sensors be calibrated every 31 days, respectively.

30 CFR 75.351(o)(1)(i) requires that a record be made if the AMS emits an alert or alarm signal. The record would consist of the date, time, location, and type of sensor, and the reason for its activation.

30 CFR 75.351(o)(1)(ii) requires that, if an AMS malfunctions, a record be made of the date, the extent and cause of the malfunction, and the corrective action taken to return the system to proper operating condition.

30 CFR 75.351(o)(1)(iii) requires that the persons doing the weekly test of alert and alarm signals, the monthly calibration, or maintenance of the system make a record of these tests, calibrations, or maintenance.

30 CFR 75.351(o)(2) requires the recordkeeper entering the record must include their name, date and signature in the record.

30 CFR 75.351(o)(3) requires that all records concerning the AMS be kept in a book or electronically in a computer system that is secure and not susceptible to alteration.

30 CFR 75.351(p) requires the mine operator to keep these records for at least one year at a surface location and to make them available for inspection by authorized representatives of the Secretary and representatives of miners.

30 CFR 75.351(q)(1) requires that all AMS operators must be trained annually in the proper operation of the AMS.

30 CFR 75.351(q)(3) requires that a record of annual AMS operator training be kept. The record includes the content of training, the person conducting the training, and the date the training was conducted. The record needs to be maintained at the mine site by the mine operator for at least one year.

30 CFR 75.352(a), (b), and (c) require the designated AMS operator or other appropriate personnel to notify, investigate, or evacuate when malfunction, alert, or alarm signals are received.

30 CFR 75.352(e) requires that immediate action must be taken to return the system to proper operation if any components of the AMS malfunctions or are inoperative.

30 CFR 75.352(e)(7) allows continuous operation of the belt when the AMS components are made for those AMSs using sensors other than carbon monoxide sensors, when an alternative detector and the alert and alarm levels associated with that detector must be specified the in the approved mine ventilation plan.

30 CFR 75.371(hh) requires reporting within the mine ventilation plan of the “ambient level in parts per million of carbon monoxide, and the method for determining the ambient level, in all areas where carbon monoxide sensors are installed.”

30 CFR 75.371(ii) requires the ventilation plan includes the locations (designated areas) where dust measurements would be made in the belt entry when belt air is used to ventilate working sections or areas where mechanized mining equipment is being installed or removed, in accordance with 30 CFR 75.350(b)(3).

30 CFR 75.371(jj) requires the location and approved velocities at dust measurement locations where air velocities in the belt entry are above or below the limits set forth in 30 CFR 75.350(a)(2) or 30 CFR 75.350(b)(7) and 30 CFR 75.350(b)(8).

30 CFR 75.371(kk) requires the locations where air quantities are measured as set forth in 30 CFR 75.350(b)(6) be included in the mine ventilation plan.

30 CFR75.371(ll) requires the locations and use of point feed regulators, in accordance with 30 CFR 75.350(c) and (d)(5), to be in the mine ventilation plan.

30 CFR 75.371(mm) requires the location of any diesel-discriminating sensor and additional carbon monoxide or smoke sensors installed in the belt air course to be included in the mine ventilation plan.

30 CFR 75.371(nn) requires modification of the mine ventilation plan to show the length of the time delay or any other method used for the lower non-fire related alert and alarm setting for carbon monoxide sensors.

30 CFR 75.371(oo) requires modification of the mine ventilation plan to show the lower alert and alarm setting for carbon monoxide sensors, in accordance with 30 CFR 75.351(i)(2).

30 CFR 75.371(pp) requires modification of the mine ventilation plan to show the alternate detector and the alert and alarm levels associated with the detector, in accordance with 30 CFR 75.352(e)(7).

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 respondents are mine operators that elect to use belt air to ventilate working sections and areas where mechanized equipment is being installed or removed. The records will be used by coal mine supervisors, miners, and State and Federal mine inspectors. The records show that the required examinations and tests were conducted. These records give insight into the hazardous conditions that have been or may be encountered. The records of inspections greatly help to make decisions that will ultimately affect the safety and health of miners working in belt air mines.

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.

Mine operators may retain the records either in a secure book that is not susceptible to alteration, or electronically in a computer system that is secure and not susceptible to alteration. MSHA encourages operators who store records electronically to provide a mechanism that will allow the continued storage and retrieval of records. MSHA currently accepts automatic printing of alert and alarm signals and automatic storage of some data. No other improved 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 purpose(s) described in 2 above.

MSHA knows of no other Federal or State reporting requirements that duplicate the reporting requirements contained in this section.

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

This information collection does 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.

Reduction of these requirements could result in increased hazards to miners. If the information collections are not conducted, the consequences could be severe. A reduction in the frequency of examinations and tests associated with these information collections could allow unsafe conditions to develop and jeopardize the safety of the miners.

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, rant-in-aid, or tax records for more than three years;**
- **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **Requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- **That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

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

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.

In accordance with 5 CFR 1320.8(d), MSHA will publish the proposed information collection requirements in the Federal Register, notifying the public that these information collection requirements are being reviewed in accordance with the Paperwork Reduction Act of 1995, and giving interested persons 60 days to submit comments. MSHA published a 60-day Federal Register notice on June 7, 2023 (88 FR 37282). MSHA received no comments.

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

MSHA will not provide payments or gifts to respondents identified by this collection.

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. The mine operator maintains records that are reviewed by MSHA inspectors during routine inspections.

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 'Annual Cost to Federal Government'.**

PRA Respondents

In 2022 there were 14 underground coal mines that used "belt air" and/or "point feeding". MSHA estimates that on average there will be 14 underground coal mines per year that need to submit information relevant to their use of belt air course ventilation.

Wage Rates Determinations[1]

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] and adjusted the rates

[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.

[2] Options for obtaining OEWS data are available at item "E3. How to get OEWS data. What are the different ways to obtain OEWS estimates from this website?" at https://www.bls.gov/oes/oes_ques.htm.

for benefits[3], wage inflation[4], and overhead costs[5]. 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 for Underground Coal Mines

		A	B	C	D	A x B x C x D
Occupation	**NAICS Code**	**Mean Wage Rate**	**Benefit Multiplier**	**Inflation Multiplier**	**Overhead Multiplier**	**Loaded Hourly Wage Rate**
Mine Supervisor*	212100	$47.92	1.491	1.056	1.17	$88.28
Miner**	212100	$28.43	1.491	1.056	1.17	$52.38

Note: MSHA used the latest 4-quarter moving average 2021Q4-2022Q3 to determine that 32.9 percent of total loaded wages are benefits. The inflation multiplier of 1.056 was determined by using the employment price index from the most current quarter data is available, 2022Q3, divided by the base year and quarter of the OEWS employment and wage statistics, 2021Q2. MSHA used the overhead multiplier 1.17.
*The Standard Occupation Codes (SOC) used for this occupation are (47-1011), (49-1011), (51-1011), and (53-1047).
** The SOCs used for this occupation are (47-5000), (49-9071), (51-9021), (53-7000).

MSHA is not including the burden for developing or revising ventilation plans because that burden is already accounted for in OMB No. 1219-0088 for 30 CFR 75.370.

A. Preparing Belt Air Part of Ventilation Plans (30 CFR 75.350(b), 30 CFR 75.351(b), 30 CFR 75.351(e), 30 CFR 75.371(ii), (jj), (kk) and (mm))

30 CFR 75.350(b) requires that requires that the use of air from a belt air course to ventilate a working section, or an area where mechanized mining equipment is being installed or removed, is permitted only when evaluated and approved by the district manager in the mine ventilation plan. The mine operator must include in a ventilation plan a justification that the use of air from a belt entry would afford at least the same measure of protection as where belt haulage entries are not used to ventilate working places.

[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 with 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)).

[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).

[5] MSHA used an overhead rate of 17 percent. This overhead rate is based on a 2002 EPA report by Cody Rice, "Wage Rates for Economic Analysis of the Toxics Release Inventory Program", available at https://www.regulations.gov/document/EPA-HQ-OPPT-2016-0387-0064.

30 CFR 75.351(b)(3) requires a mine operator to post a map or schematic, at a designated surface location, which shows the locations and type of AMS sensors at each location and the intended air flow direction at these locations. This map or schematic must be updated within 24 hours of any change in this information.

30 CFR 75.351(b)(4) requires that contact information for AMS operator and other appropriate personnel must be provided at the designated surface location.

30 CFR 75.351(e) requires that the locations in any entry that is part of the belt air course to be specified in the mine ventilation plan.

30 CFR 75.371(mm) requires the location of any diesel-discriminating sensor and additional carbon monoxide or smoke sensors installed in the belt air course to be included in the mine ventilation plan.

Dust Measurement
30 CFR 75.350(b)(3) sets the average concentration of respirable dust in the belt air course and establishes permanent designated areas for dust measurement in the ventilation plan.

30 CFR 75.371(ii) requires the ventilation plan includes the locations (designated areas) where dust measurements would be made in the belt entry when belt air is used to ventilate working sections or areas where mechanized mining equipment is being installed or removed, in accordance with 30 CFR 75.350(b)(3).

Air Velocity
30 CFR 75.350(a)(2) requires that the air velocity in the belt entry must be at least 50 feet per minute.

30 CFR 75.350(b)(7) and (8) requires that the air velocity in the belt entry must be at least 100 feet per minute and not exceed 1,000 feet per minute.

When requested by the mine operator, the district manager may approve alternative velocities in the ventilation plan based on specific mine conditions.

30 CFR 75.371(jj) requires the location and approved velocities at dust measurement locations where air velocities in the belt entry are above or below the limits set forth in 30 CFR 75.350(a)(2) or 30 CFR 75.350(b)(7) and (8).

Air Quantity
30 CFR 75.350(b)(6) requires that the ventilation plan must include the locations for measuring air quantities.

30 CFR 75.371(kk) requires reporting within the mine ventilation plan of the "locations where air quantities are measured as set forth in 30 CFR 75.350(b)(6)."

Additional Sensors
30 CFR 75.371(mm) requires the location of any diesel-discriminating sensor and additional carbon monoxide or smoke sensors installed in the belt air course to be included in the mine ventilation plan.

In 2022, there were 14 mines that required reporting within the mine ventilation plan of the locations where air quantities are measured, locations of dust measurement and a map. MSHA estimates on average 14 mines every year are required to produce belt air related contents in a ventilation plan.

MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 60 minutes to prepare a ventilation plan and produce a map or schematic. The burden associated with 30 CFR 75.351(b)(3) which requires preparing of a map at the mine's surface is included in this estimate.

Table 12-2. Estimated Annual Respondent Hour and Cost Burden, Preparing Belt Air Part of Ventilation Plans (30 CFR 75.350(b), 30 CFR 75.351(b), 30 CFR 75.351(e), 30 CFR 75.371(ii), (jj), (kk), and (mm))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	14	1	14	60	14.00	$88.28	$1,235.92
Subtotal	**14**		**14**		**14**		**$1,236**

B. Establishing Carbon Monoxide Ambient Level (30 CFR 75.351(j))

30 CFR 75.351(j) requires approved carbon monoxide ambient levels and the means to determine those levels in the mine ventilation plan. Only mines that have detected ambient levels of carbon monoxide are required to establish an ambient level.

In 2022, 13 underground coal mines received approval of the carbon monoxide ambient levels and the methods to determine these levels within the mine ventilation plan. MSHA estimates that it will take an underground coal mine supervisor, earning $88.28 per hour, 8 hours to establish carbon monoxide ambient levels per affected belt-air mine.

Table 12-3. Estimated Annual Respondent Hour and Cost Burden, Establishing Carbon Monoxide Ambient Level (30 CFR 75.351(j))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	13	1	13	480	104.00	$88.28	$9,181.12
Subtotal	**13**		**13**		**104**		**$9,181**

C. Reporting Carbon Monoxide Ambient Level (30 CFR 75.371(hh))

30 CFR 75.371(hh) requires reporting within the mine ventilation plan of the ambient level and the method for determining the ambient level, in all areas where carbon monoxide sensors are installed.

In 2022, 10 underground coal mines reported carbon monoxide ambient level, and the method for determining the ambient level. MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 15 minutes per belt-air mine to provide such information.

Table 12-4. Estimated Annual Respondent Hour and Cost Burden, Reporting Carbon Monoxide Ambient Levels (30 CFR 75.371(hh))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	10	1	10	15	2.50	$88.28	$220.70
Subtotal	**10**		**10**		**3**		**$221**

D. Recording Alerts, Alarms, and Malfunctions (30 CFR 75.371(o)(1)(i) and (ii))

30 CFR 75.351(o)(1)(i) requires a record of all alerts and alarms of an AMS.

30 CFR 75.351(o)(1)(ii) requires a record of any malfunctions of an AMS and the corrective action taken.

In 2022, there were 14 mines that required a record of all alerts and alarms of an AMS. MSHA estimates that it takes a miner, earning $52.38 per hour, 8 hours annually per affected belt-air mine to record all alerts and alarms.

Table 12-5. Estimated Annual Respondent Hour and Cost Burden, Recording Alerts, Alarms, and Malfunctions (30 CFR 75.371(o)(1)(i) and (ii))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Miner	14	1	14	480	112.00	$52.38	$5,866.56
Subtotal	**14**		**14**		**112**		**$5,867**

E. Documenting Procedures for Alerts, Alarms, and Malfunctions (30 CFR 75.352(a), (b), and (c))

30 CFR 75.352(a), (b), (c) require the designated AMS operator or other appropriate personnel to notify, investigate, or evacuate when malfunction, alert, or alarm signals are received. These procedures are accompanied by a documentation requirement in 30 CFR 75.351(o)(1)(i) and (ii).

In 2022, there were 14 mines that required procedures to be followed in response to all alerts, alarms and malfunction signals of an AMS. MSHA estimates that it takes a miner, earning $52.38 per hour, 15 hours annually per affected belt-air mine to prepare a procedure documentation.

Table 12-6. Estimated Annual Respondent Hour and Cost Burden, Documenting Procedures for Alerts, Alarms, and Malfunctions (30 CFR 75.352(a), (b), and (c))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Miner	14	1	14	900	210.00	$52.38	$10,999.80
Subtotal	**14**		**14**		**210**		**$11,000**

F. Recording Testing, Calibration and Maintenance (30 CFR 75.351(o)(1)(iii), 30 CFR 75.351(o)(2) and (3), 30 CFR 75.351(p))

30 CFR 75.351(n)(2) and 30 CFR 75.351(n)(3) require that alarms for AMS be tested every 7 days and carbon monoxide, smoke, or methane sensors be calibrated every 31 days, respectively.

30 CFR 75.351(o)(1)(iii) requires a record of all testing, calibration, and malfunctions of an AMS, including the weekly test of alert and alarm signals and the monthly calibration or maintenance of the system.

30 CFR 75.351(o)(2) requires the recording of the name, date and signature of the person entering the record is included.

30 CFR 75.351(o)(3) requires that all records concerning the AMS be kept in a book or electronically in a computer system that is secure and not susceptible to alteration.

30 CFR 75.351(p) requires the mine operator to keep these records for at least 1 year at a surface location and to make them available for inspection by authorized representatives of the Secretary and representatives of miners.

In 2022, there were 14 mines that required weekly testing of the alarms, monthly calibration of the carbon monoxide sensors, and maintenance for an AMS.

MSHA estimates that it takes a miner, earning $52.38 per hour, 2 hours annually per affected belt-air mine to perform recordkeeping for weekly testing, 6 hours for monthly calibration, and 2 hours for maintenance.

Table 12-7. Estimated Annual Respondent Hour and Cost Burden, Recording Testing, Calibration and Maintenance (30 CFR 75.351(o)(1)(iii), 30 CFR 75.351(o)(2) and (3), 30 CFR 75.351(p))

Activity	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Weekly Testing	14	1	14	120	28.00	$52.38	$1,466.64
Monthly Calibration	14	1	14	360	84.00	$52.38	$4,399.92
Maintenance	14	1	14	120	28.00	$52.38	$1,466.64
Subtotal	**14**		**14**		**140**		**$7,333**

G. Recording Training of AMS Operators (30 CFR 75.351(q)(3))

30 CFR 75.350(b)(2) requires all miners to be trained annually in the basic operating principles of the AMS. It must be conducted as part of a miner's new miner training, experienced miner training, or annual refresher training.

30 CFR 75.351(q)(1) requires that all AMS operators must be trained annually in the proper operation of the AMS.

30 CFR 75.351(q)(3) requires that a record of annual AMS operator training be kept. The record should include annual training of all AMS operators in the proper operation of the AMS and the names of designated AMS operators.

In 2022, there were 14 mines that require a record to be kept of annual training of all AMS operators in the proper operation of the AMS and the names of designated AMS operators. MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 15 minutes to provide such information.

Table 12-8. Estimated Annual Respondent Hour and Cost Burden, Recording Training of AMS Operators (30 CFR 75.351(q)(3))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	14	1	14	15	3.50	$88.28	$308.98
Subtotal	**14**		**14**		**4**		**$309**

H. Reporting Point-Feed Regulator Locations and Use (30 CFR 75.350(c) and (d), 30 CFR 75.371(ll))

30 CFR 75.350(c) requires that the mine ventilation plan must include the location and use of point-feed regulators, if additional intake air is added to the belt air course through a point-feed regulator.

30 CFR 75.350(d)(1) requires that the ventilation plan must include the district manager approval of a second point monitored for carbon monoxide or smoke at a distance less than 1,000 feet upwind of the point-feed regulator, based on mine specific conditions.

30 CFR 75.350(d)(5) requires that the ventilation plan must include information regarding the location(s) and use of point-feed regulator(s) if the air through the point-feed regulator enters a belt air course. The location(s) and use of point-feed regulator(s) must be shown on the mine ventilation map.

30 CFR 75.371(ll) requires reporting within the mine ventilation plan of the locations and use of point-feed regulators, in accordance with 30 CFR 75.350(c) and 75.350(d)(5).

In 2022, there were 9 mines reported the locations and use of point-feed regulators.

MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 10 minutes per year per affected belt-air mine to provide such information.

Table 12-9. Estimated Annual Respondent Hour and Cost Burden, Reporting Point-Feed Regulator Locations and Use (30 CFR 75.350(c) and (d), 30 CFR 75.371(ll))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	9	1	9	10	1.50	$88.28	$132.42
Subtotal	**9**		**9**		**2**		**$132**

I. Preparing Initial Justification of Time Delay or Other Methods (30 CFR 75.351(m))

30 CFR 75.351(m) permits a mine to incorporate time delays into the AMS, when a demonstrated need exists. These time delays must only be used to account for non-fire related carbon monoxide alert and alarm sensor signals. These time delays are limited to no more than three minutes. The use and length of any time delays, or other techniques or methods which eliminate or reduce the need for time delays, must be specified and approved in the mine ventilation plan.

In 2022, 8 mines provided justifications of time delay or other method used with an AMS. MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 8 hours per affected belt-air mine to provide such information.

Table 12-10. Estimated Annual Respondent Hour and Cost Burden, Preparing Justification of Time Delay (30 CFR 75.351(m))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	8	1	8	480	64.00	$88.28	$8,649.92
Subtotal	**8**		**8**		**64**		**$8,650**

J. Reporting Time Delays (30 CFR 75.371(nn))

30 CFR 75.371(nn) requires reporting within the mine ventilation plan of the "length of the time delay or any other method used to reduce the number of non-fire related alert and alarm signals from carbon monoxide sensors."

In 2022, there were 8 mines reported time delay or any other method used to lower the number of non-fire related alert and alarm signals from carbon monoxide sensors.

MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 15 minutes to provide such information.

Table 12-11. Estimated Annual Respondent Hour and Cost Burden, Reporting Time Delays (30 CFR 75.371(nn))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	8	1	8	15	2.00	$88.28	$176.56
Subtotal	**8**		**8**		**2**		**$177**

K. Reporting Reduced Carbon Monoxide Alert and Alarm Setting (30 CFR 75.371(oo))

30 CFR 75.351(i)(2) establishes that reduced alert and alarm setting approved by the district manager may be required for carbon monoxide sensors identified in the mine ventilation plan.

30 CFR 75.371(oo) requires reporting within the mine ventilation plan of the "reduced alert and alarm settings for carbon monoxide sensors", in accordance with 30 CFR 75.351(i)(2).

In 2022, there were 5 mines reported reduced alert and alarm settings for carbon monoxide sensors.

MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 15 minutes to provide such information.

Table 12-12. Estimated Annual Respondent Hour and Cost Burden, Reporting Reduced Carbon Monoxide Alarm Level (30 CFR 75.371(oo))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	5	1	5	15	1.25	$88.28	$110.35
Subtotal	**5**		**5**		**2**		**$110**

L. Reporting Alternative Detectors (30 CFR 75.371(pp))

30 CFR 75.352(e)(7) allows continuous operation of the belt when the AMS components are made for those AMSs using sensors other than carbon monoxide sensors, when an alternative detector and the alert and alarm levels associated with that detector must be specified the in the approved mine ventilation plan.

30 CFR 75.371(pp) reported alternate detectors and associated alert and alarm levels.

In 2022, there were 6 mines reported alternative detector usage when the AMS failed.

MSHA estimates that it takes a mine supervisor, earning $88.28 per hour, 15 minutes to provide such information.

Table 12-13. Estimated Annual Respondent Hour and Cost Burden, Reporting Alternative Detectors (30 CFR 75.371(pp))

Occupation	Respondents (Mines)	Responses per Respondent	Total Responses	Burden per Response (Minutes)	Annual Burden (Hours)	Hourly Wage Rate	Burden Cost
Mine Supervisor	6	1	6	15	1.50	$88.28	$132.42
Subtotal	**6**		**6**		**2**		**$132**

MSHA estimates that the 14 respondents (mine operators) would incur, on average, an annual collection burden of 656 hours with an associated annual cost of $41,348.

Table 12-14. Total Estimated Respondent Hour and Cost Burden, OMB #1219-0138

Activity	No. of Respondents	No. of Responses per Respondent	Total Responses	Average Burden (Hours)	Total Burden (Hours)	Hourly Wage Rate	Total Burden Cost
Preparing Belt Air Part of Ventilation Plan	14	1	14	1.00	14.00	$88.28	$1,235.92
Establishing CO Ambient Level	13	1	13	8.00	104.00	$88.28	$9,181.12
Reporting CO Ambient Level	10	1	10	0.25	2.50	$88.28	$220.70
Recording Alerts, Alarms, and Malfunctions	14	1	14	8.00	112.00	$52.38	$5,866.56
Documenting Procedures for Alerts, Alarms, and Malfunctions	14	1	14	15.00	210.00	$52.38	$10,999.80
Weekly Testing	14	1	14	2.00	28.00	$52.38	$1,466.64
Monthly Calibration	14	1	14	6.00	84.00	$52.38	$4,399.92
Maintenance	14	1	14	2.00	28.00	$52.38	$1,466.64
Recording Training of AMS	14	1	14	0.25	3.50	$88.28	$308.98

Operators							
Reporting Point-Feed Regulator Locations and Use	9	1	9	0.17	1.50	$88.28	$132.42
Preparing Justification of Time Delays	8	1	8	8.00	64.00	$88.28	$8,649.92
Reporting Time Delays	8	1	8	0.25	2.00	$88.28	$176.56
Reporting Reduced CO Alarm Level	5	1	5	0.25	1.25	$88.28	$110.35
Reporting Alternative Detectors	6	1	6	0.25	1.50	$88.28	$132.42
Total (Rounded)	**14**		**157**		**658**		**$44,348**

13. Provide an estimate of 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 collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**
- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

A. Record security of tests, calibrations, and maintenance (30 CFR 75.351(o)(3))

30 CFR 75.351(o)(3) requires safekeeping of records for one year of all alerts, alarms, malfunctions, maintenance, examinations, testing, and calibration for an AMS in a secure book that is not susceptible to alteration, or electronically in a computer system that is secure and not

susceptible to alternation. MSHA estimates 14 underground coal mines needs to keep the secure books, and $20 of materials cost per affected mine to purchase a secure book.

Table 13-1. Estimated Annual Respondent Recordkeeping Cost Burden

Cost Component	No. of Responses	Cost per Copy	Burden Cost
Secure Books	14	$20.00	$280.00
Total	**14**		**$280**

30 CFR 75.351(b)(3) and (b)(4) require a mine operator to post a map or schematic, at a designated surface location, which shows the locations and type of AMS sensors at each location and the intended air flow direction at these locations. The map is submitted annually and supplemented or revised periodically as needed. This map or schematic must be updated within 24 hours of any change in this information. The cost of posting this required map is negligible or inconsequential. MSHA considers this cost de minimis.

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 are no costs to the Federal government associated with this rule since all records are kept by the mine operators at a surface location and to make them available for inspection.

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

Respondents: The number of respondents increased from 12 to 14. The number of respondents increased due to an increase of affected underground coal mines.

Responses: The number of responses increased from 113 to 157 due to the increase in the number of respondents.

Burden Hours: The number of burden hours increased from 545 to 658 due to the increases in respondents.

Respondents or Recordkeeping Costs: The estimated annual cost decreased from $38,640 to $280 due to changes in cost assumptions by removing sensor purchasing costs. The burden cost

decreased because MSHA determined to not include the cost of purchasing carbon monoxide sensors as part of information collection costs.

Table 15-1

	Previous	Current	Difference
Respondents	12	14	2
Responses	113	157	44
Burden Hours	545	658	111
Respondents or Recordkeepers Costs	$38,640	$280	-$38,360

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 information collection.

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.

This collection does not seek approval to not display the expiration date for OMB approval.

18. Explain each exception to the topics of the certification statement "Certification for Paperwork Reduction Act Submissions."

MSHA does not request an exception to the certification of this information collection.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

There is no statistical methodology involved in this collection.