

Examinations and Testing of Electrical Equipment

OMB Control Number: 1219-0116

OMB Expiration Date: 1/31/2024

**Supporting Statement for  
Examinations and Testing of Electric Equipment  
Paperwork Reduction Act Submission**

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

**OMB Control Number:** 1219-0116

**Information Collection Request Title:** Examinations and Testing of Electric Equipment

**Authority:**

*30 CFR Subpart F—Electrical Equipment—General*

Underground Coal Mines

- 30 CFR 75.512 Electric equipment; examination, testing and maintenance.
- 30 CFR 75.512-2 Frequency of examinations.

Surface Coal Mines and Surface Work Areas of Underground Coal Mines

- 30 CFR 77.502 Electric equipment; examination, testing, and maintenance.
- 30 CFR 77.502-2 Electric equipment; frequency of examination and testing.

*30 CFR Subpart H—Grounding*

Underground Coal Mines

- 30 CFR 75.703-3 Approved methods of grounding offtrack mobile, portable and stationary direct-current machines.

*30 CFR Subpart I—Underground High-Voltage Distribution*

*30 CFR Subpart I—Surface High-Voltage Distribution*

Underground Coal Mines

- 30 CFR 75.800 High-voltage circuits; circuit breakers.
- 30 CFR 75.800-3 Testing, examination and maintenance of circuit breakers; procedures.
- 30 CFR 75.800-4 Testing, examination, and maintenance of circuit breakers; record.

High-Voltage Longwalls

- 30 CFR 75.820 Electrical work; troubleshooting and testing.
- 30 CFR 75.821 Testing, examination and maintenance.

Surface Coal Mines and Surface Work Areas of Underground Coal Mines

- 30 CFR 77.800 High-voltage circuits; circuit breakers.
- 30 CFR 77.800-1 Testing, examination, and maintenance of circuit breakers; procedures.
- 30 CFR 77.800-2 Testing, examination, and maintenance of circuit breakers; record.

*30 CFR Subpart J—Underground Low- and Medium-Voltage Alternating Current Circuits*

*30 CFR Subpart J—Low- and Medium-Voltage Alternating Current Circuits*

Underground Coal Mines

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- 30 CFR 75.900 Low- and medium-voltage circuits serving three-phase alternating current equipment; circuit breakers.
  - 30 CFR 75.900-3 Testing, examination, and maintenance of circuit breakers; procedures.
  - 30 CFR 75.900-4 Testing, examination, and maintenance of circuit breakers; record.
- Surface Coal Mines and Surface Work Areas of Underground Coal Mines
- 30 CFR 77.900 Low- and medium-voltage circuits serving portable or mobile three-phase alternating current equipment; circuit breakers.
  - 30 CFR 77.900-1 Testing, examination, and maintenance of circuit breakers; procedures.
  - 30 CFR 77.900-2 Testing, examination, and maintenance of circuit breakers; record.

### *30 CFR Subpart K—Trolley Wires and Trolley Feeder Wires*

#### Underground Coal Mines

- 30 CFR 75.1001-1 Devices for overcurrent protection; testing and calibration requirements; records.

**Type of OMB Review:** Extension

**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 (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

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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 and metal and nonmetal mines.

Inadequate maintenance of electric equipment is a major cause of serious electrical accidents in the coal mining industry. It is imperative that mine operators adopt and follow an effective maintenance program to ensure that electric equipment is maintained in a safe operating condition to prevent electrocutions, mine fires, and mine explosions. MSHA regulations require the mine operator to establish an electrical maintenance program by specifying minimum requirements for the examination, testing, and maintenance of electric equipment. The regulations also contain recordkeeping requirements that help operators in implementing an effective maintenance program.

### (a) Examinations of Electric Equipment

- (1) 30 CFR 75.512 requires that all electric equipment in underground coal mines be frequently examined, tested, and maintained by a qualified person to ensure safe operating conditions. A record of such examinations shall be kept and made available to an authorized representative of the Secretary and to the miners in such mine. 30 CFR 75.512-2 specifies required examinations and at least weekly tests.
- (2) 30 CFR 77.502 requires that electric equipment in surface coal mines and surface work areas of underground coal mines be frequently examined, tested, and maintained by a qualified person to ensure safe operating conditions and that a record of such examinations will be kept. 30 CFR 77.502-2 requires examinations and tests at least monthly.

#### Grounding Diodes

30 CFR 75.703-3(d)(11) requires that all grounding diodes in underground coal mines be tested, examined, and maintained as electric equipment and records of these activities be kept in accordance with the provisions of 30 CFR 75.512.

### (b) Examinations of High-Voltage Circuit Breakers

- (1) 30 CFR 75.800 requires that circuit breakers protecting high-voltage circuits in underground coal mines, which enter the underground area of a coal mine, be properly tested and maintained as prescribed by the Secretary. 30 CFR 75.800-3 requires that such circuit breakers be tested and examined at least once each month. 30 CFR 75.800-4 requires that a record of the examinations and tests be made. These records shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. These records shall be retained at a surface location at the mine for at least one year and shall be made available to authorized representatives of the Secretary, the representative of miners, and other interested persons.

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- (2) 30 CFR 77.800 requires that circuit breakers protecting high-voltage portable or mobile equipment in surface coal mines and surface work areas of underground coal mines be properly tested and maintained. 30 CFR 77.800-1 requires that such circuit breakers be tested and examined at least once each month. 30 CFR 77.800-2 requires a record of each test, examination, repair, or adjustment of all circuit breakers protecting high-voltage circuits.

### *High-voltage Longwalls*

- (1) 30 CFR 75.820 requires electric work on all circuits and equipment associated with high-voltage longwalls in underground coal mines to be performed only by qualified persons.
- (2) 30 CFR 75.821(a) requires testing and examination of each unit of high-voltage longwall equipment and circuits in underground coal mines to determine that electrical protection, equipment grounding, permissibility, cable insulation, and control devices are properly maintained to prevent fire, electrical shock, ignition, or operational hazards. These tests and examinations, including the activation of the ground-fault test circuit, are required once every seven days.
- (3) 30 CFR 75.821(b) requires that each ground-wire monitor and associated circuits in underground coal mines be examined and tested at least once every 30 days.
- (4) 30 CFR 75.821(d) requires that, at the completion of examinations and tests of high-voltage longwall equipment and circuits in underground coal mines, the person making the examinations and tests must certify that they have been conducted. In addition, a record must be made of any unsafe condition found and any corrective action taken. Certifications and records must be kept for at least one year and must be made available for inspection by authorized representatives of the Secretary and representatives of miners.

### (c) Examinations of Low- and Medium-Voltage Circuits

- (1) 30 CFR 75.900 requires that circuit breakers in underground coal mines that are used to protect low- and medium-voltage power circuits serving three-phase alternating-current equipment to be properly tested and maintained. 30 CFR 75.900-3 requires that such circuit breakers be tested and examined at least once each month. 30 CFR 75.900-4 requires that a written record of the required examinations and tests be made. Such record shall be kept in a book approved by the Secretary.
- (2) 30 CFR 77.900 requires that circuit breakers that are used to protect low- and medium-voltage circuits which supply power to portable or mobile three-phase alternating-current equipment in surface coal mines and surface work areas of underground coal mines be properly tested and maintained. 30 CFR 77.900-1 requires that such circuit breakers be tested and examined at least once each month. 30 CFR 77.900-2 requires that a written record of the examinations and tests be made, and such record shall be kept in a book approved by the Secretary.

### (d) Tests and Calibrations of Automatic Circuit Interrupting Devices of Trolley Wires and Trolley Feeder Wires

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30 CFR 75.1001-1(b) requires that automatic circuit interrupting devices that protect trolley wires and trolley feeder wires be tested and calibrated at intervals not to exceed six months. 30 CFR 75.1001-1(c) requires that a record of the tests and calibrations be kept, and shall be made available, upon request, to an authorized representative of the Secretary.

### **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 underground and surface coal mine operators. The records of tests and examinations are reviewed by coal miners, coal mine officials, and MSHA and State inspectors. The records are intended to verify that examinations and tests were conducted and give insight into the actual and potentially hazardous conditions associated with electric equipment and circuit breakers at the mine. These records greatly assist those who use them in making decisions during accident investigations to establish root causes and to prevent similar occurrences. These decisions will ultimately affect the safety and health of miners.

Miners examine the records to determine if electric equipment is safe to operate and to determine if reported safety defects have been corrected. Mine officials examine the records to evaluate the effectiveness of their electrical maintenance programs, to determine that the required tests and examinations have been conducted, and to determine if reported safety defects have been corrected. MSHA and State inspectors review the records to determine if the required tests and examinations have been conducted and to identify units of electric equipment that may pose a potential safety hazard, and to evaluate the effectiveness of the coal mine operator's electrical maintenance programs. By comparing the records with the actual condition of the electric equipment, MSHA inspectors may be able to identify weaknesses in the coal mine operator's electrical maintenance program and require that these weaknesses be corrected.

### **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 in whatever method they choose, which may include using computer technology. The regulations do not specify how the required records must be kept. They may be kept in the traditional manner or stored electronically, provided the records are secure and not susceptible to loss or alteration. No improved information technology has been identified that would reduce the burden.

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**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.**

MSHA knows of no other Federal or State reporting requirements that would duplicate the reporting requirements contained in these standards. The information collected is unique to each mine operation.

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

This information does not have a significant 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.**

Reduction of these requirements could result in increased hazards to miners. A reduction in the frequency of examinations and tests could allow unsafe conditions to develop, jeopardizing the safety of 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, grant-in-aid, or tax records for more than three years;**
- **In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **Requiring the use of statistical data classification that has not been reviewed and approved by OMB;**
- **That includes a pledge of confidentiality confidentially 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 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.**

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 July 24, 2023 (88 FR 47520). No comments received.

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

MSHA does not provide payments or gifts to the respondents.

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

MSHA has made no assurance of confidentiality.

**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. General, estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burden estimates for each form.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 13.**

## **Respondents**

Based on MSHA records, there are currently 166 underground coal mines, 370 surface coal mines, and 219 surface facilities covered by the requirements to examine and test electrical equipment, totaling 755 respondents.

## **Wage Rates Determinations<sup>1</sup>**

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<sup>2</sup> and adjusted the rates

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<sup>1</sup> 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.

<sup>2</sup> 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](https://www.bls.gov/oes/oes_ques.htm).

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for benefits<sup>3</sup>, wage inflation<sup>4</sup>, and overhead costs<sup>5</sup>. 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

Occupation	NAICS Code	Mean Wage Rate	Benefit Multiplier	Inflation Multiplier	Overhead Cost Multiplier	Loaded Hourly Wage Rate
		A	B	C	D	A x B x C x D
Mining Supervisor*	212100	\$47.92	1.487	1.066	1.17	\$88.88
Electrician**	212100	\$36.30	1.487	1.066	1.17	\$67.32

Note: MSHA used the latest 4-quarter moving average 2022Q1-2022Q4 to determine that 32.8 percent of total loaded wages are benefits for private industry workers in construction, extraction, farming, fishing, and forestry occupations. The benefit multiplier is  $1.487 = 1 + (0.328 / (1 - 0.328))$ . The inflation multiplier of 1.066 was determined by using the employment price index from the most current quarter data is available, 2022Q4, 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  $1.066 = 153.8 / 144.3$ . MSHA used the overhead multiplier of 1.17.

\* The SOCs used for this occupation is (43-6011), (43-6014), and (43-9000) for all NAICS codes.

\*The Standard Occupation Codes (SOC) used for this occupation are (47-1011), (49-1011), (51-1011), and (53-1047).

\*\*The SOC used for this occupation is (47-2110).

### A. Examinations of Electric Equipment

MSHA estimates that a mining supervisor earning an hourly wage rate of \$88.88 records the examinations of electric equipment.

30 CFR 75.512 and 75.512-2: There are 455 underground coal mining sections utilizing electric equipment. Each mining section has, on average, 6 pieces of electrical equipment. The total number of underground electric equipment is thus estimated to be 2,730 (=455 x 6). Each piece of equipment is required to be examined weekly (50 weeks/year) and the results of each examination are required to be recorded. MSHA estimates that it will take 6 minutes to create the record for a piece of electrical equipment located on an underground coal mining section.

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<sup>3</sup> 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 ID CMU2030000405000D and [CMU2030000405000P](http://download.bls.gov/pub/time.series/cm/cm.data.0.Current). 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  $1 + (\text{benefit percentage} / (1 - \text{benefit percentage}))$ .

<sup>4</sup> 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 at <https://data.bls.gov/cgi-bin/srgate>. Inflation multiplier = (current quarter cost index value / OEWS wage base quarter index value).

<sup>5</sup> 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>.

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30 CFR 77.502 and 77.502-2: The number of electric equipment at surface coal mines and surface facilities is approximately 8,875. 30 CFR 77.502-2 requires the equipment to be examined monthly (12 times/year) and 30 CFR 77.502 requires the results of each examination to be recorded. MSHA estimates that the results of each examination will take 15 minutes to record.

### *Grounding Diodes*

30 CFR 75.703-3(d)(11): All grounding diodes must be tested, examined, and maintained as electrical equipment in accordance with the provisions of 30 CFR 75.512; therefore, recordkeeping in connection with diode testing calculations are included as part of the recordkeeping burden under 30 CFR 75.512 above.

*Table 12-2a. Number of Examinations of Electric Equipment*

Type of Coal Mines	Pieces of Electric Equipment	Records per Piece of Electric Equipment	No. of Responses (Records)
Underground	2,730	50	136,500
Surface and Facility	8,875	12	106,500
<b>Subtotal</b>	<b>11,605</b>		<b>243,000</b>

*Table 12-2b. Examinations of Electric Equipment*

Occupation/ Rule Section	No. of Respondents (Mines)	No. of Responses (Records)	Avg. Burden per Response (Minutes)	Total Annual Burden Hours	Avg. Hourly Wage Rate	Annual Burden Cost
<b>Electric equipment (underground)</b>						
Mining Supervisor/ 30 CFR 75.512 & 75.512-2	166	136,500	6	13,650.00	\$88.88	\$1,213,158.06
<b>Electric equipment (surface and facility)</b>						
Mining Supervisor/ 30 CFR 77.502 & 77.502-2	589	106,500	15	26,625.00	\$88.88	\$2,366,324.79
<b>Subtotal (Rounded)</b>	<b>755</b>	<b>243,000</b>		<b>40,275</b>		<b>\$3,579,483</b>

## **B. Examinations of High-Voltage Circuit Breakers**

30 CFR 75.800-3 and 30 CFR 75.800-4: The number of circuit breakers protecting high-voltage circuits extending underground is approximately 806. Each circuit breaker is required to be examined and tested once a month and the results of each examination and test must be recorded. It is estimated that the results of each examination will take 15 minutes to record.

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30 CFR 77.800-1 and 30 CFR 77.800-2: The number of circuit breakers protecting high-voltage circuits extending to portable and mobile surface equipment is approximately 1,482. Each circuit breaker is required to be examined and tested once a month and the results of each examination and test must be recorded. It is estimated that the results of each examination will take 15 minutes to record.

*Table 12-3a. Number of Examinations of High-Voltage Circuit Breakers*

Type of Coal Mines	No. of Circuit Breakers	Records per Circuit Breaker	No. of Responses (Records)
Underground	806	12	9,672
Surface and Facility	1,482	12	17,784
<b>Subtotal</b>	<b>2,288</b>		<b>27,456</b>

*Table 12-3b. Examinations of High-Voltage Circuit Breakers*

Occupation/ Rule Section	No. of Respondents (Mines)	No. of Responses (Records)	Avg. Burden per Response (Minutes)	Total Annual Burden Hours	Avg. Hourly Wage Rate	Annual Burden Cost
Mining Supervisor/ 30 CFR 75.800-3 & 75.800-4	166	9,672	15	2,418.00	\$88.88	\$214,902.28
Mining Supervisor/ 30 CFR 77.800-1 & 77.800-2	589	17,784	15	4,446.00	\$88.88	\$395,142.91
<b>Subtotal (Rounded)</b>	<b>755</b>	<b>27,456</b>		<b>6,864</b>		<b>\$610,045</b>

### C. Examinations of High-Voltage Longwall Equipment in Underground Coal Mines

An electrician earning an hourly wage rate of \$67.32 conducts the examination and testing of high-voltage longwall equipment. In underground coal mines, there are currently 28 longwall units affected by 30 CFR 75.820 and 30 CFR 75.821.

30 CFR 75.820: MSHA estimates that it will take an electrician an average of 5 minutes to lock out and tag a disconnecting device as specified in 30 CFR 75.820(b) and 30 CFR 75.820(e), and that an average of one lock out and tag out procedure will occur each day at each longwall unit. Longwall mines operate an average of 350 workdays/year (7 days/week x 50 weeks/year).

30 CFR 75.821: 30 CFR 75.821(a) requires that each unit of high-voltage longwall equipment and circuits must be examined every seven days (50 responses). 30 CFR 75.821(b) requires that ground-wire monitors and circuits be tested every 30 days (12 responses). 30 CFR 75.821(d) requires the electrician to certify by signature and date that the examinations required by 30 CFR 75.821 have been conducted and to make a record of any unsafe conditions found and any

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corrective action taken. MSHA estimates that an electrician would find and correct an unsafe condition, on average, once every two weeks (25 responses assuming 50 weeks/year).

MSHA estimates that it takes an electrician about 6 minutes to produce each record and certify that these examinations were conducted.

Table 12-4. Examinations of High-Voltage Longwall Equipment in Underground Coal Mines

Activity/ Rule Section	No. of Respondents (Longwall Equipment)	No. of Responses per Respondent	No. of Responses (Records)	Avg. Burden per Response (Minutes)	Total Annual Burden Hours	Avg. Hourly Wage Rate	Annual Burden Cost
Daily Lock out and Tag a Disconnecting Device/ 30 CFR 75.820	28	350	9,800	5	816.7	\$67.32	\$54,980.10
Weekly Exams/ 30 CFR 75.821(a)	28	50	1,400	6	140.0	\$67.32	\$9,425.16
Monthly Ground-wire Monitors and Circuits Tests/ 30 CFR 75.821(b)	28	12	336	6	33.6	\$67.32	\$2,262.04
Bi-weekly Find and Correct Unsafe Condition/ 30 CFR 75.821(d)	28	25	700	6	70.0	\$67.32	\$4,712.58
<b>Subtotal (Rounded)</b>	<b>28</b>		<b>12,236</b>		<b>1,060</b>		<b>\$71,380</b>

### D. Examinations of Low- and Medium-Voltage Circuit Breakers

30 CFR 75.900-3 and 30 CFR 75.900-4: The number of power centers containing circuit breakers protecting low- and medium-voltage power circuits serving three-phase underground equipment is approximately 5,368. The circuit breakers in each power center are required to be examined and tested once a month and the results of the examination and tests recorded. It is estimated that the results of each examination and test will take 15 minutes to record.

30 CFR 77.900-1 and 30 CFR 77.900-2: The number of installations containing circuit breakers protecting low- and medium voltage alternating-current equipment located on the surface is approximately 999. The circuit breakers in each installation are required to be examined and tested once a month and the results of the examination and test recorded. It is estimated that the results of each examination and test will take an average of 15 minutes to record.

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Table 12-5a. Number of Examinations of Low- and Medium-Voltage Circuit Breakers

Type of Coal Mines	No. of Circuit Breakers	Records per Circuit Breaker	No. of Responses (Records)
Underground	5,368	12	64,416
Surface and Facility	999	12	11,988
<b>Subtotal</b>	<b>8,655</b>		<b>103,860</b>

Table 12-5b. Examinations of Low- and Medium-Voltage Circuit Breakers

Occupation/ Rule Section	No. of Respondents (Mines)	No. of Responses (Records)	Avg. Burden per Response (Minutes)	Total Annual Burden Hours	Avg. Hourly Wage Rate	Annual Burden Cost
Mining Supervisor/ 30 CFR 75.900-3 & 75.900-4	166	64,416	15	16,104.00	\$88.88	\$1,431,259.88
Mining Supervisor/ 30 CFR 77.900-1 & 77.900-2	589	11,988	15	2,997.00	\$88.88	\$266,361.52
<b>Subtotal (Rounded)</b>	<b>755</b>	<b>103,860</b>		<b>25,965</b>		<b>\$2,307,667</b>

**E. Tests and Calibrations of Automatic Circuit Interrupting Devices in Underground Coal Mines**

30 CFR 75.1001-1(b) and 30 CFR 75.1001-1(c). The number of trolley automatic circuit interrupting devices in underground coal mines is approximately 25. Each circuit breaker is required to be tested and calibrated once every 6 months and the results of the tests and calibrations recorded. It is estimated that the results of each test will take approximately 15 minutes to record.

Table 12-6. Tests and Calibrations of Automatic Circuit Interrupting Devices in Underground Coal Mines

Occupation/ Rule Section	No. of Respondents (Automatic Circuit Interrupting Devices)	Responses per Respondent	No. of Responses (Records)	Avg. Burden per Response (Minutes)	Total Annual Burden Hours	Avg. Hourly Wage Rate	Annual Burden Cost
Mining Supervisor/ 30 CFR 75.1001- 1(b) & 75.1001- 1(c)	25	2	50	15	12.5	\$88.88	\$1,110.95
<b>Subtotal</b>	<b>25</b>		<b>50</b>		<b>13</b>		<b>\$1,111</b>

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Table 12-7. Estimated Annual Respondent Hour and Cost Burden, Summary Totals

Activity	No. of Respondents	No. of Responses per Respondent	Total Responses	Average Burden (Hours)	Total Burden (Hours)	Hourly Wage Rate	Total Burden Cost
Electric equipment (Underground)	166	822.3	136,500	0.10	13,650.00	\$88.88	\$1,213,158.06
Electric equipment (Surface and Facility)	589	180.8	106,500	0.25	26,625.00	\$88.88	\$2,366,324.79
High-voltage Circuit Breakers (Underground)	166	58.3	9,672	0.25	2,418.00	\$88.88	\$214,902.28
High-voltage Circuit Breakers (Surface and Facility)	589	30.2	17,784	0.25	4,446.00	\$88.88	\$395,142.91
Longwall (Daily Lock out and Tag a Disconnecting Device)	28	350.0	9,800	0.08	816.67	\$67.32	\$54,980.10
Longwall (Weekly Exams)	28	50.0	1,400	0.10	140.00	\$67.32	\$9,425.16
Longwall (Monthly Ground-wire Monitors and Circuits Tests)	28	12.0	336	0.10	33.60	\$67.32	\$2,262.04
Longwall (Bi-weekly Find and Correct Unsafe Condition)	28	25.0	700	0.10	70.00	\$67.32	\$4,712.58
Low and medium-voltage Circuit Breakers (Underground)	166	388.0	64,416	0.25	16,104.00	\$88.88	\$1,431,259.88
Low and medium-voltage Circuit Breakers (Surface and Facility)	589	20.4	11,988	0.25	2,997.00	\$88.88	\$266,361.52
Automatic Circuit Interrupting Devices	25	2.0	50	0.25	12.50	\$88.88	\$1,110.95
<b>Total (Rounded)</b>	<b>755</b>		<b>359,146</b>		<b>67,313</b>		<b>\$5,959,640</b>

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

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

MSHA does not anticipate that there will be any costs associated with this information collection other than those indicated in Item 12 above.

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

There is no significant cost to the Federal Government. The review and inspection of records is just one aspect of the mine inspection. Complete inspections are required under section 103(a) of the Mine Act four times per year for underground mines and twice a year for surface operations.

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

Respondents: The number of respondents increased from 674 to 755 mining operations.

Responses: The number of responses increased from 291,074 to 359,146 due to the increase in the number of respondents.

Burden Hours: The number of burden hours increased from 55,339 to 67,313 due to the increases in the number of respondents.

Respondents or Recordkeeping Costs: The estimated annual costs remain the same.

Table 15-1. Summary of Changes

	Previous	Current	Difference
Respondents	674	755	81
Responses	291,074	359,146	68,072
Burden Hours	55,339	67,313	11,974
Respondent or Recordkeeper Costs	\$0	\$0	\$0

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

MSHA has no plans to publish the information obtained through this information collection.

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

There are no forms associated with this request, therefore MSHA is not seeking approval to not display the expiration date for OMB approval of this information collection.

**18. Explain each exception to the topics of the certification statement.**

There are no certification exceptions identified with this information collection.

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

This collection of information does not employ statistical methods.