

**Supporting Statement for
Paperwork Reduction Act Submissions**

OMB Control Number: 1219 - 0054

Title: Fire Protection (Underground Coal Mines)

30 CFR Authority: 75.1100-3	Condition and examination of firefighting equipment.
75.1103-5(a)(2)(ii)	Automatic fire warning devices; actions and response.
75.1103-8(b) & (c)	Automatic fire sensor and warning device systems; examination and test requirements
75.1103-11	Tests of fire hydrants and fire hose; record of tests.
75.1501(a)(3)	Emergency evacuations.
75.1502(a) & (b)	Mine emergency evacuation and firefighting program of instruction.

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.

Underground Coal Mine Fire Protection

1219-0054

March 2016

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 101(a) of the Mine Act, 30 U.S.C. 811 authorizes the 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.

30 CFR 75.1100, which codifies section 311(a) of the Federal Mine Safety and Health Act of 1977 (Mine Act) requires that each coal mine be provided with suitable firefighting equipment adapted for the size and conditions of the mine, and that the Secretary of Labor shall establish minimum requirements of the type, quality, and quantity of such equipment.

30 CFR 75.1100-3 requires that chemical fire extinguishers be examined every 6 months and that the date of the examination be recorded on a permanent tag attached to the extinguisher.

30 CFR 75.1103-5(a)(2)(ii) requires that a map or schematic be updated within 24 hours of any change in the locations of automatic fire warning sensors and the intended air flow direction at these locations. This map or schematic would be kept at a manned surface location where personnel have an assigned post of duty.

30 CFR 75.1103-8 (a) requires that a qualified person examine the automatic fire sensor and warning device systems on a weekly basis and conduct a functional test of the complete system at least once every seven days.

Section 75.1103-8(b) requires that a record of the weekly automatic fire sensor functional tests be maintained by the mine operator and kept for a period of one year.

30 CFR 75.1103-8(c) requires that sensors be calibrated in accordance with the manufacturer's calibration instructions at intervals not to exceed 31 days. Records of the sensor calibrations must be maintained by the operator and kept for a period of one year.

30 CFR 75.1103-11 requires that each fire hydrant and hose be tested at least once a year and the records of those tests be maintained at an appropriate location.

30 CFR 75.1501(a)(3) requires the operator to certify that each responsible person is trained and that the certification is maintained at the mine for at least one year.

Underground Coal Mine Fire Protection

1219-0054

March 2016

30 CFR 75.1502 requires each mine operator to adopt and follow a mine evacuation and firefighting program of instruction that addresses all mine emergencies created as a result of a fire, an explosion, or a gas or water inundation. In addition, this section requires mine operators to submit this program of instruction, and any revisions, to MSHA for its approval and to train miners regarding the use of the program of instruction, and any revisions to such program of instruction, after it is approved by MSHA.

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.

Fire suppression equipment tests are conducted on a regular basis to ensure that all equipment, i.e. section 75.1100-3 (chemical fire extinguishers); section 75.1103-8 (sensor and warning devices); and section 75.1103-11 1219-0054 October 2009 2 (hydrants and their hoses), is in working order and ready for use. MSHA uses the programs, the fire drill and the firefighting equipment certifications to determine whether a mine operator has adequate procedures and equipment to protect miners in the event of a fire.

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 improved information technology has been identified that would reduce the burden; however, in order to comply with the Government Paperwork Elimination Act, miner operators may retain the records in whatever method they choose, which may include utilizing computer technology.

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.

Programs are unique and specific according to the needs of each mine. If similar programs or records are required by States or other organizations, their application as a means of satisfying MSHA's requirements would be acceptable.

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 businesses or other small entities. However, MSHA makes available various

Underground Coal Mine Fire Protection

1219-0054

March 2016

sources of information to assist our stakeholders. For example, searches can be conducted on MSHA's web-site (www.msha.gov) based on category (e.g. "fire") or mine type (e.g. "coal") to find information on fire extinguishers, fire suppression systems, evacuations, and fire detection systems. In addition, MSHA's web-site also has links related to these issues, such as "Accident Prevention" and "Technical Support."

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.

Regular examinations of fire suppression equipment ensure that the equipment is operational and ready for use should a fire occur. Records of these examinations are necessary to ensure that this fire suppression equipment is adequately maintained and available for use in an emergency.

Certification of the training for the responsible persons is necessary and is similar to other MSHA training certification requirements. The mine evacuation and firefighting program of instruction is crucial for training miners to respond to mine emergencies, successfully evacuate the mines under dangerous conditions and occupy the refuge alternatives when evacuation is not possible. Variations in mining methods, geology and other conditions require a mine-specific firefighting and evacuation plan. There is no effective substitute for the mine evacuation and firefighting program of instruction. Inadequate training on emergency evacuation techniques and strategies has been a root-cause in several recent mine disasters.

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

(a) Requiring respondents to report information to the agency more often than quarterly.

(b) Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it.

(c) Requiring respondents to submit more than an original and two copies of any document.

(d) Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years.

(e) 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.

Underground Coal Mine Fire Protection

1219-0054

March 2016

(f) Requiring the use of a statistical data classification that has not been reviewed and approved by OMB.

(g) 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.

(h) 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.

Records of the warning signal functional tests and sensor calibrations must be retained by the mine operator for a period of one year. While there is no specific retention requirement for fire hydrant and fire hose testing, underground coal mine operators are required to have such records during the time their mines are actively operating. There is a one-year retention requirement for the certification of the responsible person training. No records have to be maintained for over three years. This collection of information is otherwise consistent with the guidelines found in 5 CFR 1320.5 and does not contain any requirements for respondents to report more frequently than on a quarterly basis.

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.

MSHA published a 60-day Federal Register notice on November 2, 2015 (80 FR 67427). MSHA received no comments.

Underground Coal Mine Fire Protection

1219-0054

March 2016

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 the 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 personal information requiring confidentiality. No assurance of confidentiality is provided. The conduct of investigations and tests is required by 30 CFR 18.9 to be held as confidential and MSHA will not disclose principles or patentable features; nor will it disclose to persons other than the applicant the results of tests, chemical analysis of materials or any details of the applicant's drawings, specifications, instructions, and related material.

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 in Item 14.**

Underground Coal Mine Fire Protection

1219-0054

March 2016

Under 30 CFR 75.1100-3, chemical fire extinguishers shall be examined every 6 months and the date of the examination recorded on a permanent tag attached to the extinguisher. MSHA records show that in 2015, there are approximately 632 mechanized mining units (MMUs) in operation, each requiring approximately 20 fire extinguishers. MSHA estimates that it takes a miner earning \$42.50 per hour¹ approximately 2 minutes (to check each fire extinguisher and record the results on the tag.

Responses:

632 MMUs x 20 fire extinguishers/MMU x 2 exams/yr = 25,280 exams

Hour Burden:

25,280 exams x 2 minutes/exam = 843 hours

Hour Burden Cost:

843 hours x \$42.50/hour = \$35,828

Under 30 CFR 75.1103-5(a)(2)(ii), a notation must be made on a map or schematic to show the locations of sensors and the intended direction of air flow. The map or schematic must also be updated within 24 hours of any changes. MSHA expects that these notations will be added to the mine map required under existing sections 75.1200 and 75.372 (approved OMB control number 1219-0073). MSHA estimates, for the 237 non-AMS mines, that it will take an engineer, earning a wage of \$75.69 per hour,² 5 minutes to update the map monthly.

Responses:

237 non AMS mines x 12 monthly notations = 2,844 notations

Hour Burden:

2,844 notations x 5 minutes/notation = 237 hours

Hour Burden Cost:

237 hours x \$75.69/hour = \$17,939

Under 30 CFR 75.1103-8, a functional test of the complete automatic fire sensor and warning device systems must be made every seven days. Records of the tests must be made by qualified persons and maintained by the mine operator. MSHA estimates that there are approximately 237 non-AMS underground coal mines equipped with an average of 4 automatic fire sensor and warning device systems per mine. MSHA

¹ The wage rate (including benefits) was developed from tabulations in the *U.S. Coal Mines Salaries, Wages, and Benefits - 2012 Survey Results*, InfoMine USA, Inc., 2012 < <http://costs.infomine.com/laborcompensationreports/>>; adjusted for cost change using the Bureau of Labor Statistics' Employment Cost Index (ECI) for the "Private industry workers in Construction, extraction, farming, fishing, and forestry occupations, series CIU2010000405000" <<http://www.bls.gov/ect/>> (Base wage x ECI increase multiplier = updated wage; \$40.56 x 1.048 = \$42.50)

² See note 1, base rate \$72.23.

Underground Coal Mine Fire Protection

1219-0054

March 2016

estimates that it takes a mine supervisor, earning \$102.28 per hour,³ approximately 15 minutes to conduct the weekly functional test of the automated fire sensor system and approximately 3 minutes to certify the weekly test records.

Responses:

237 mines x 4 systems/mine x 52 weekly tests = 49,296 tests

Hour Burden:

49,296 tests x (15 minutes/test + 3 minutes/record) = 14,789 hours

Hour Burden Cost:

14,789 hours x \$102.28/hour = \$1,512,619

Under 30 CFR 75.1103-8(c), the calibration of carbon monoxide sensors is required at intervals of no more than 31 days. The operator must keep a record of the carbon monoxide sensor calibrations for one year. MSHA estimates that 4,180 carbon monoxide sensors will be affected and that it will take 1 minute of a supervisor's time (at an hourly wage of \$102.28) to record each calibration.

Responses:

4,180 sensors x 12 monthly calibrations = 50,160 certifications

Hour Burden:

50,160 certifications x 1 minute/certification = 836 hours

Hour Burden Cost:

836 hours x \$102.28/hour = \$85,506

Under 30 CFR 75.1103-11, each fire hydrant must be tested by opening, and each hose must also be tested. Both tests are to be conducted annually and a record made of each test. MSHA estimates that there are approximately 262 actively producing underground coal mines that have an average of 30 fire hydrants per mine, and that it would take a mine supervisor earning \$102.28 per hour approximately 30 minutes to conduct the tests and make a record of the results.

Responses:

262 mines x 30 hydrants/per mine x 2 tests = 15,720 tests

Hour Burden:

15,720 tests x 0.5 hour = 7,860 hours

Hour Burden Cost:

7,860 hours x \$102.28/hour = \$803,921

³ See note 1, base rate \$97.60.

Underground Coal Mine Fire Protection

1219-0054

March 2016

Section 75.1501(a)(3) requires that the mine operator certify that the responsible persons have been trained annually in mine emergency response coordination and communication. MSHA believes that there would be a backup responsible person for each mine shift because there would be times when the primary responsible person could not be at the mine site. MSHA estimates that the average underground coal mine operates two shifts per day. The operator must certify by signature and date after each responsible person has completed the training and keep the certification at the mine for one year. MSHA estimates that it would take a mine supervisor, who is paid \$102.28 per hour, approximately 2 minutes to certify and file each training certification.

Responses:

262 mines x 2 shifts x 2 certifications = 1,048 certifications

Hour Burden:

1,048 certifications x 2 minutes/certification = 35 hours

Hour Burden Cost:

35 hours x \$102.28/hour = \$3,580

30 CFR 75.1502 - Mine Emergency Evacuation and Firefighting Program of Instruction. Each operator of an underground mine shall adopt and follow a mine emergency evacuation and firefighting program that instructs all miners in the procedures they must follow if a mine emergency occurs. Approved mine emergency evacuation and firefighting programs of instruction (PI) should not require regular updates and approvals since these programs should generally be applicable for extended periods. New mines will require the development of mine emergency evacuation and firefighting PI and the submission of these programs to the district manager for approval. Considering an estimated average underground coal mine life of four to five years, MSHA believes that approximately 30% of the underground coal mines will develop and submit a mine emergency evacuation and firefighting PI to the district manager for approval annually. This includes a limited number of revisions to existing PI. MSHA estimates that a mine supervisor, earning \$102.28 per hour, will require an average of 3 hours to prepare a PI. MSHA also estimates that it would take a clerical worker,⁴ who earns \$29.40 per hour, approximately one hour to copy and prepare the PI for mailing to the district manager.

Responses:

262 mines x 30%/year = 79 PI

Hour Burden:

79 PI x 3 hours/PI (Development) = 237 hours

79 PI x 1 hours/PI (Copying and Mailing) = 79 hours

Total Hours = 316 hours

⁴ See note 1, base rate \$28.05.

**Underground Coal Mine Fire Protection
1219-0054
March 2016**

Hour Burden Cost:

237 hours x \$102.28/hour	=	\$24,240
79 hours x \$29.40/hour	=	\$ 2,323
Total Hour Burden Cost	=	\$26,563

30 CFR Section	Responses	Burden Hours	Burden Hour Cost
75.1100-3	25,280	843	\$35,828
75.1103-5(a)(2) (ii)	2,844	237	\$17,939
75.1103-8	49,296	14,789	\$1,512,619
75.1103-8(c)	50,160	836	\$85,506
75.1103-11	15,720	7,860	\$803,921
75.1501(a)(3)	1,048	35	\$3,580
75.1502	79	316	\$26,563
Total	144,427	24,916	\$2,485,956

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 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

Underground Coal Mine Fire Protection

1219-0054

March 2016

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.

30 CFR 75.1502 - Mine Emergency Evacuation and Firefighting Program of Instruction. Approved mine emergency evacuation and firefighting programs of instruction (PI) should not require regular updates and approvals since these programs should generally be applicable for extended periods. New mines will require the development of mine emergency evacuation and firefighting PI and the submission of these programs to the district manager for approval. Considering an estimated average underground coal mine life of four to five years, MSHA believes that approximately 30% of the underground coal mines will develop and submit a mine emergency evacuation and firefighting PI to the district manager for approval annually. This includes a limited number of revisions to existing PI.

The average mine emergency evacuation and firefighting PI is estimated to be approximately eight pages in length. Copying costs are estimated at \$0.15 per page and postage and handling is estimated at \$3.00 per PI.

Copying & Postage

(79 PI) x (8 pages/PI) x (\$0.15/page) = \$ 95

(79 PI) x (\$3.00/PI Postage) = \$237

TOTAL BURDEN COST: = **\$332**

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

There is no additional cost to the Federal government associated with the burden hours provided in response to question 12.

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

Due to a decrease in respondents there is a subsequent decrease in responses, burden hours and costs. Respondents decreased because the number of mines have decreased.

Underground Coal Mine Fire Protection

1219-0054

March 2016

Respondents: Decreased from 549 to 237

Responses: Decreased from 294,618 to 144,427

Burden Hours: Decreased from 54,809 to 24,916

Costs: Decreased from \$693 to \$332

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 the beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

The results from the information gathered from this collection will not be published.

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 has no forms associated with this collection of information on which to display an expiration date.

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

There are no certification exceptions identified with this information collection.

B. Collections of Information Employing Statistical Methods

There is no statistical methodology involved in this collection.

Underground Coal Mine Fire Protection

1219-0054

March 2016

**Federal Mine Safety & Health Act of 1977, Public Law 91-173, as amended by
Public Law 95-164**

FIRE PROTECTION

SEC. 311. (a) Each coal mine shall be provided with suitable firefighting equipment adapted for the size and conditions of the mine. The Secretary shall establish minimum requirements for the type, quality, and quantity of such equipment, and the interpretations of the Secretary or the Director of the Bureau of Mines relating to such equipment in effect on the operative date of this title shall continue in effect until modified or superseded by the Secretary. After every blasting operation, an examination shall be made to determine whether fires have been started.