

1219-0034

Records of Tests and Examinations of Personnel Hoisting Equipment

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SUPPORTING STATEMENT

Information Collection Request Title: Records of Tests and of Examinations of Personnel Hoisting Equipment

CFR Citations: 30 CFR 56.19022, 56.19023, 56.19121, 57.19022, 57.19023, 57.19121, 75.1400-2, 75.1400-4, 75.1432, 75.1433, 77.1404, 77.1432, 77.1433, and 77.1906

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 MSHA to collect information necessary to carry out its duty in protecting the safety and health of miners.

Under Title 30 of the Code of Federal Regulations (CFR), MSHA has requirements that address hoists and appurtenances, including wire rope, used for hoisting persons. The requirements address both metal and nonmetal surface and underground mines (30

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CFR parts 56 and 57); and underground coal and surface work areas of underground coal mines (30 CFR parts 75 and 77).

Title 30 CFR 56/57.19022 and 30 CFR 75/77.1432 requires the diameter of newly installed wire rope to be measured at least once in every third interval of the rope's active length to establish a baseline for subsequent semiannual measurements. A record of the measurements is required to be made and retained until the rope is retired from service.

Title 30 CFR 56/57.19023 and 30 CFR 75/77.1433 require the wire rope to be visually examined at least every fourteen days for visible structural damage, corrosion, and improper lubrication or dressing. If the examination reveals weakening portions of the rope, the weakened portions must be monitored daily for further deterioration until retirement criteria require that the rope be removed from service. The person conducting the examination must certify that the examination was made and the record must be retained for one year.

Title 30 CFR 56/57.19121 requires the person conducting the inspection, test or examination of hoisting equipment to certify by signature and date that these activities have been done. Any unsafe conditions must be noted in a record and dated. All certifications and records must be retained for one year.

Title 30 CFR 75.1400–2 requires a record to be made of tests conducted on safety catches. Safety catches are the last means to safely stop a falling conveyance in the event of rope or equipment failure.

Title 30 CFR 75.1400–4 and 77.1404 require a record to be made of each daily examination. If any unsafe condition is found during the examination, the person conducting the examination must make a record of the condition. All certifications and records must be retained for one year.

Title 30 CFR 77.1906 requires a daily examination of hoists used for shaft sinking. If any unsafe condition is found during the examination, the person conducting the examination must make a record of the condition. All certifications and records must be retained for one year.

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.

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The information is used by industry management and maintenance personnel to project the expected safe service performance of equipment; to indicate when maintenance and specific tests need to be performed; and to ensure that wire rope or other critical components are replaced in time to maintain the necessary safety for miners.

Federal mine inspectors use the records to ensure that unsafe conditions are identified early and corrected. The consequence of hoist or shaft equipment malfunctions or wire rope failures can result in serious injuries and fatalities. The records are essential for MSHA inspectors to verify that mine operators are properly inspecting for unsafe conditions and maintaining their hoist and shaft equipment.

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, mine operators may retain the records in whatever method they choose, which may include using 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.

Not all states have recordkeeping requirements for hoisting or shaft equipment. In some instances, states have adopted the Federal requirement. For states that require the same records as the Federal regulations, one record could be used to fulfill both state and Federal requirements, avoiding duplication.

The records on the results of examinations and tests of hoisting or shaft equipment are made and retained as required by specific Federal requirements. There are no similar records that could be used or modified for use instead of the required records. Where possible, MSHA has replaced existing recordkeeping with certification requirements. However, the Agency still requires a record to be kept of either inspections or unsafe conditions found during testing, inspection, or maintenance activities to help ensure the safety of miners using the hoisting or shaft system.

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

This collection of 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.

The recordkeeping requirements for hoisting equipment are specified in the sections cited in Title 30 of the Code of Federal Regulations (30 CFR). MSHA has determined that the recordkeeping requirements for hoisting equipment are the minimum necessary to ensure safety. Further reduction of these requirements could allow unsafe equipment to remain in operation, 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 a statistical data classification that has not been reviewed and approved by OMB;**
- * that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- * requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

Although regulations require that operators must conduct tests and examinations and records of such tests must be recorded more frequently than quarterly, respondents are not required to submit the results to MSHA; rather, records of the results are to be maintained on site and be available for review during routine inspections.

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. 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 March 7, 2017 (82 FR 12852). MSHA received no public comments.

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

MSHA does not provide payments or gifts to respondents.

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

There is no assurance of confidentiality provided to respondents.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

There are no questions of a sensitive nature.

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

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

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

*** Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included under Item 13.**

Respondents: MSHA bases the following estimates on 225 mining operations with personnel hoisting equipment (115 for Metal and Nonmetal (MNM) and 110 for Coal) in the mining industry. Many of the mines have multiple hoists. MSHA bases wage rates on data from the Department of Labor's Occupational Employment Statistics (OES)¹ adjusted for benefits². Benefit adjusted hourly wage rates³ in this package are \$49.06 for a MNM supervisor and \$56.18 for a coal supervisor.

(I) Daily and Biweekly Examinations at METAL AND NONMETAL MINES

¹ Options for obtaining OES data are available at item "E3. How to get OES data. What are the different ways to obtain OES estimates from this website?" at http://www.bls.gov/oes/oes_ques.htm#howto (copy or type, do not select).

² The benefit-scaler comes from BLS Employer Costs for Employee Compensation access by menu <http://www.bls.gov/data/> or directly with <http://download.bls.gov/pub/time.series/cm/cm.data.0.Current>. The data series CMU2030000405000P, Private Industry Total benefits for Construction, extraction, farming, fishing, and forestry occupations, is divided by 100 to convert to a decimal value. MSHA used the latest 4-quarter moving average 2015Qtr3-2016Qtr2 to determine that 32.65 percent of total loaded wages are benefits. The scaling factor is a detailed calculation, but may be approximated with the formula and values $1 + (\text{benefit percentage}/(1-\text{benefit percentage})) = 1 + (.3265/(1-.3265)) = 1.48$.

³ MSHA used hourly wages from OES May 2015 survey adjusted for benefits (mean rate x 1.48 scaling factor). The Standard Occupational Classification (SOC) code used is 47-1011(First-Line Supervisors of Construction Trades and Extraction Workers). Rates for coal are from NAICS 212100. Rates for MNM are the employment weighted average from Metal Ore Mining (NAICS 212200) and Nonmetallic Mineral Mining and Quarrying (NAICS 212300).

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Title 30 CFR 56.19023(a), 56.19023(d), 56.19121, 57.19023(a), 57.19023(d), and 57.19121 require recordkeeping when the required examinations, inspections, and tests are conducted or when unsafe conditions are found during routine examinations, inspections, and tests of personnel hoisting or shaft equipment. MSHA estimates that it will take a supervisor at \$49.06 per hour an average of 5 minutes to record the daily examination and 5 minutes to record the results of the bi-weekly examinations.

Responses:

115 Hoists x 260 daily exams	= 29,900 responses
115 Hoists x 26 biweekly exams	= <u>2,990 responses</u>
Total Responses	= 32,890 responses

Recordkeeping Hours:

29,900 daily exams x 5 minutes	= 2,492 hours
2,990 biweekly exams x 5 minutes	= <u>249 hours</u>
Total Hours	= 2,741 hours

Costs:

Recordkeeping: (Supervisor) 2,741 hours x \$49.06 = \$134,473

(II) Initial and Semiannual Wire Rope Measurements or Non-Destructive Testing or Measurements of Wire Ropes at Metal and Nonmetal Mines

Title 30 CFR 56.19022, 56.19023(c), 56.19023(e), 57.19022, 57.19023(c), and 57.19023(e) (Initial measurement; Examinations) concern measurements of wire rope for wear so the rope can be removed from service in a timely manner before the safety of miners is affected. The wire rope at each hoist is replaced on an average of once every five years. Approximately 40 percent of the 115 MNM mine hoists (or 46 MNM operations) will need to replace the wire rope at each hoist. Each of the 46 new wire ropes installed per year require initial diameter measurements. Tests and measurements to evaluate each wire rope's wear are made twice a year at all 115 hoisting operations. The notations of measurements or test results take about 9 minutes per response.

Responses:

46 Hoists x 1 exam	= 46 responses
115 Hoists x 2 exams	= <u>230 responses</u>
Total Responses	= 276 responses

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Hours:

Initial recordkeeping hours:

46 new wire ropes x 9 minutes to record = 7 hours

Semi-annual recordkeeping hours:

115 Hoists x 2 exams/year x 9 minutes = 35 hours

Total Hours = 42 hours

Costs:

Initial recordkeeping: 7 hours x \$49.06 = \$ 343

Recordkeeping: 35 hours x \$49.06 = \$1,717

Total Costs = \$2,060

(I) Total Responses	32,890
(II) Total Responses	276
Total Responses (Metal and Nonmetal):	33,166

(I) Total Hours	2,741	
(II) Total Hours		42
Total Recordkeeping Burden Hours (Metal and Nonmetal):	2,783	

(I) Total Costs		
134,473		
(II) Total Costs		
2,060		
Total Recordkeeping Costs (Metal and Nonmetal)		\$136,533

(I) Daily and Biweekly Examinations at Coal Mines

Title 30 CFR 75.1400-4 (Underground coal; certifications and records of daily examinations), 75.1433(d) (Underground coal mines; bi-weekly visual examination), 77.1404 (Surface coal mines; daily examination and record), and 77.1433(d) (Surface coal mines; bi-weekly visual examination) concern recordkeeping of the completion of required examinations and tests of personnel hoisting equipment and the recording of

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unsafe conditions (when found) during routine examinations. MSHA estimates that it will take a total of 5 minutes to record the daily examination. MSHA also estimates that it will take an average of 5 minutes to record the results of the bi-weekly visual examinations. These estimates also include the examination of hoists used for shaft sinking as referenced by 30 CFR 77.1906(c).

Responses:

110 operations x 214 daily exams	= 23,540 responses
110 operations x 26 bi-weekly exams	= <u>2,860 responses</u>
Total Responses	= 26,400 responses

Recordkeeping Hours:

26,400 Exams x 5 minutes	= 2,200 hours
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Costs

Recordkeeping (Supervisor): 2,200 hours x \$56.18	= \$123,596
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(II) Initial and Semiannual Wire Rope Measurement or Non-Destructive Testing for Personnel Hoist Ropes at Surface and Underground Coal Mines

Title 30 CFR 75.1432 (Underground coal mines; initial wire rope measurements and records), 75.1433(c) (Underground coal mines twice annual non-destructive testing and record or caliper measurements), 77.1432 (Surface mine initial wire rope measurements and record) and 77.1433(c) (Surface coal mines; biannual non-destructive testing and record or caliper measurements) require mine operators to measure the diameter of recently installed wire ropes used in personnel hoisting at prescribed intervals. These sections also require either conducting non-destructive tests semi-annually or re-measuring semi-annually the wire ropes at the same locations using a caliper device to monitor rope wear toward determining when the rope must be retired/replaced.

MSHA estimates that the initial measurement of each new wire rope requires approximately 5 minutes to record.

MSHA also estimates that each non-destructive test of a wire rope or caliper measurement of a rope will take approximately 5 minutes to record. MSHA records show that on the average each respondent will have 3 ropes that are required to have initial measurements and non-destructive testing or caliper measurements; however, approximately one-third of the ropes in-service are replaced each year.

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Title 30 CFR 75/77.1433 allows the mine operator the option of using caliper measurement at the same locations as the initial measurement in lieu of non-destructive tests. MSHA estimates 56 percent of all ropes are caliper-measured for compliance and the remaining 44 percent are non-destructively tested by contractors for the mine operator. An estimate of employing contractors is provided in Item 13.

Responses:

110 Mines x 3 ropes x 1/3	= 110 responses
110 Mines x 3 ropes x 56% x 2 measurements	= <u>370 responses</u>
Total Responses	= 480 responses

Initial recordkeeping hours:

110 records x 5 minutes	= 9 hours
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Semi-annual Recordkeeping hours:

370 records x 5 minutes	= <u>31 hours</u>
Total Hours	= 40 hours

Costs:

9 hours x \$56.18	= \$ 506
31 hours x \$ 56.18	= <u>\$ 1,742</u>

Total Costs	= \$ 2,248
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(III) Tests of Safety Catches at Underground Coal Mines

Title 30 CFR 75.1400(c) and 75.1400-2 (Underground coal mines; bi-monthly test and record for safety catch devices) require that the safety catches on vertically hoisted personnel cages and the brake-cars on slope hoisted man-trips be tested every two months. MSHA estimates that it takes 5 minutes to record the results of the test.

Responses

110 operations x 6 tests x 2 records	= 1,320 responses
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Hours for Housekeeping

1,320 records x 5 minutes	= 110 hours
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Costs:

110 hours x \$56.18	= \$6,180
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(I)	Total Responses	26,400
(II)	Total Responses	480
(III)	Total Responses	1,320
Total Coal Responses		28,200
(I)	Total Hours	2,200
(II)	Total Hours	40
(III)	Total Hours	110
Total Recordkeeping Coal Hours		2,350
(I)	Total Costs	123,596
(II)	Total Costs	2,248
(III)	Total Costs	6,180
Total Recordkeeping Coal Costs		\$132,024

Total Metal and Nonmetal and Coal Burden Hours and Costs:

GRAND TOTAL RECORDKEEPING RESPONSES:

Metal and Nonmetal	=	33,166
Coal	=	<u>28,200</u>
Total Responses	=	61,366

GRAND TOTAL RECORDKEEPING BURDEN HOURS:

Metal and Nonmetal	=	2,783 Hours
Coal	=	<u>2,350 Hours</u>
Total Hours	=	5,133 Hours

GRAND TOTAL RECORDKEEPING BURDEN HOUR COSTS:

Metal and Nonmetal	=	\$ 136,533
Coal	=	<u>\$ 132,024</u>
Total Cost	=	\$ 268,557

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

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

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

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

Tests and examination of personnel hoisting equipment are required to be conducted more frequently than quarterly as mandated for the safety of the miners. Because the records are maintained by the mine operator, and not submitted to MSHA, there are no additional costs associated with this burden other than those described above. If the operator elects to use non-destructive wire rope testing for compliance with MSHA standards, the operator incurs additional costs.

MSHA estimates that 40 percent of the wire ropes in service at MNM and Coal Mine operations use non-destructive testing for wire ropes provided by contractors. The estimated average cost to the operator is \$500 per wire rope. The interpretation of the electronically generated strip chart(s), and the charts and recommendations on continued service are the records that are sent to the mine operator.

40% x 225 operations x 3 wire ropes non-destructive tests x 2 per year x \$500 per test = **\$270,000.**

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.

Records are examined by Federal mine inspectors in the course of routine mine inspections. Therefore, the requirements result in no additional costs to the Federal government.

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

The burden hours have decreased by 856 hours from (5,989 to 5,133). The decrease is attributed to a decrease in the number of mining operations with personnel hoisting equipment. There was a decrease in responses from 74,715 to 61,366 and in costs from \$300,000 to \$270,000.

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.

MSHA associates no forms with this collection.

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

There are no exceptions to the certification statement.

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B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

As statistical analysis is not required by the regulation, Part B does not apply.