

SUPPORTING STATEMENT

Records of Tests and of Examinations of Personnel Hoisting Equipment 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, 77.1906

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.

Under Section 101(a) of the Federal Mine Safety and Health Act of 1977, codified at 30 U.S.C. § 811(a), the Secretary of Labor is authorized to develop, promulgate, and revise as may be appropriate, improved mandatory safety standards for the protection of life and prevention of injuries in coal or other mines. There are existing requirements that apply to hoists and appurtenances used for hoisting persons. Among other things, these requirements provide for a record of specific tests and inspections of a mine's personnel hoisting system, including the wire rope, to ensure that the system remains safe to operate. Review of the record indicates whether deficiencies are developing in the equipment, and in particular the wire rope, so that corrective action may be taken before an accident occurs. The requirements also provide for a systematic procedure for the inspection, testing, and maintenance of shaft and hoisting equipment. The mine operator must certify that the required inspections, tests, and maintenance have been made, then record any unsafe condition identified during the examination or test.

The precise format in which the record is kept is left to the discretion of the mine operator. All records are made by the person conducting the required examination or test. Unless otherwise noted below, these records are to be retained for one year at the mine site.

(I) Daily and Biweekly Examinations at All Mines

When a personnel hoist is in use, certain critical components of the system, such as the wire rope and its method of attachment to the conveyance, must be examined upon installation and then biweekly to ensure that they remain in safe operating condition. Under 30 CFR 56/57.19023(a), the wire rope is examined at least every fourteen days unless the examination reveals weakening portions of the rope. These weakened portions must then be monitored daily for further deterioration until retirement criteria require that the rope be removed from service. Under 30 CFR 56/57.19023(d), the person conducting the inspections, tests, or maintenance on the hoist or shaft equipment shall certify that those activities have been done. If no unsafe conditions are found, the person conducting these activities need only certify that the activity has been

done. However, any unsafe conditions must be noted in a record and dated. These records ensure that any unsafe conditions are promptly repaired or corrected.

(II) Initial and Semiannual Wire Rope Measurements and Semi-Annual Non-Destructive Testing or Measurements of Wire Ropes at All Mines

Newly installed wire rope must be measured at least once in every third interval of the rope's active length to establish a baseline for subsequent semiannual measurements of wear and eventual removal of the rope. Diameter measurements are essential indicators of reduction of rope strength due to normal wear. Further, at least once every six months non-destructive tests shall be conducted of the active length of rope or rope diameter measurements made. Records are required of the above tests and they are kept until the rope is removed from service.

(III) Safety Catches at Underground Coal Mines

Under 30 CFR 75.1400-2, safety catches are the last means to safely stop a falling conveyance in the event of rope or equipment failure. It is essential that safety catches remain in working condition, as ascertained by bimonthly testing.

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 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. It is essential the Mine Safety and Health Administration (MSHA) inspectors be able 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 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.

Not all states have recordkeeping requirements for hoisting or shaft equipment and 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 are made and kept on the results of specific examinations and tests of hoisting or shaft equipment 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 (Item 5 of OMB Form 83-I), 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.

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 tests and examinations be conducted and records of such tests made more frequently than quarterly, the respondent is not required to submit the results to MSHA; rather a record of the results is to be maintained on site to be reviewed 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 January 19, 2011 (76 FR 3176). No comments were received.

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 in Item 13 of OMB Form 83-I.**

*** 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.**

The following estimates are based on 286 mining operations with personnel hoisting equipment (70 for Metal and Nonmetal and 216 for Coal) in the mining industry. Many of the mines have multiple hoists. Hourly wage rates in this package are for a supervisor (\$59.73 for a MNM supervisor and \$77.35 for a coal supervisor) and a clerical employee (\$24.45 for a MNM clerical employee and \$25.72 for a Coal clerical employee). Coal hourly wage rates are based on data from U.S. Coal Mine Salaries, Wages and Benefits – 2009 Survey Results. MNM hourly wage rates are based on data from U.S. Metal and Industrial Mineral Mine Salaries, Wages and Benefits – 2009 Survey Results.

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

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 an average 5 minutes (0.08 hours) to record the daily examination. It is estimated that it will take 5 minutes (.08 hours) to record the results of the bi-weekly examinations.

Salaries are based on data from the U.S. Metal & Industrial Mineral Mine Salaries, Wages, & Benefits Survey results for 2009.

Responses:

70 Mines x 260 daily exams	= 18,200 responses
70 Mines x 26 biweekly exams	= <u>1,820 responses</u>
Total Responses	= 20,020 responses

Recordkeeping Hours:

18,200 daily exams x 0.08 hrs	= 1,456 hours
1,820 biweekly exams x 0.08 hrs	= <u>146 hours</u>
Total Hours	= 1,602 hours

Costs:

Recordkeeping: (Clerk) 1,602 hours x \$24.45	= \$ 39,169
--	-------------

(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), 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 70 MNM operations (or 28 MNM operations) will need to replace the wire rope at each hoist. Each of the 28 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 70 hoisting operations. The notations of measurements or test results take about 9 minutes (0.15 hour) per response.

Responses:

28 Mines x 1 exam	= 28 responses
70 Mines x 2 exams	= <u>140 responses</u>
Total Responses	= 168 responses

Initial recordkeeping hours:

28 new wire ropes x 0.15 hrs to record	= 4 hours
--	-----------

Semi-annual recordkeeping hours:

70 Mines x 2 exams/year x 0.15 hours	= <u>21 hours</u>
Total Hours	= 25 hours

Costs:

Initial recordkeeping: 4 hours x \$59.73	= \$239
--	---------

Recordkeeping: 21 hrs x \$24.45	= <u>\$ 513</u>
Total Costs	= \$ 752

Total Responses (Metal and Nonmetal):	= 20,188
Total Burden Hours (Metal and Nonmetal):	= 1,627
Total Costs (Metal and Nonmetal)	= \$39,921

(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 unsafe conditions (when found) during routine examinations. MSHA estimates that it will take a total of 5 minutes (0.08 hours) to record the daily examination. MSHA also estimates that it will take an average 5 minutes (.08 hours) to record the results of the biweekly visual examinations. These estimates also include the examination of hoists used for shaft sinking as referenced by 30 CFR 77.1906(c).

Responses:

216 operations x 260 daily exams	= 56,160 responses
216 operations x 26 bi-weekly exams	= <u>5,616 responses</u>
Total Responses	= 61,776 responses

Recordkeeping Hours:

61,776 Exams x 0.08 hrs	= 4,942 hours
-------------------------	---------------

Costs

Recordkeeping (Clerk): 4,942 hours x \$25.72	= \$127,108
--	-------------

(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 and semi-annually to either conduct non-destructive tests or re-measure 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 estimated that the initial measurement of each new wire rope requires approximately 0.08 hours to record.

MSHA also estimates that each non-destructive test of a wire rope or caliper measurement of a rope will take approximately 0.08 hour 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 33.3% of the ropes in-service are replaced each year.

30 CFR 75/77.1433 allow 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 60% of all ropes are caliper-measured for compliance and the remaining 40% are non-destructively tested by contractors for the mine operator. An estimate of employing contractors is provided in item 13.

Responses:
 216 Mines x 3 ropes x 33.33% = 216 responses
 216 Mines x 3 ropes x 60% x 2 measurements = 778 responses
Total Responses = 994 responses

Initial recordkeeping hours:
 216 records x 0.08 hrs = 17 hours

Semi-annual Recordkeeping hours:
 778 records x 0.08 hrs = 62 hours
Total hours = 79 hours

Costs:
 17 hours x \$77.35 = \$1,315
 62 hours x \$25.72 = \$1,595
Total Costs = \$2,910

(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 (0.08 hours) to record the results of the test.

Responses
 216 operations x 6 tests x 2 records = 2,592 responses

Hours for Housekeeping
 2,592 records x 0.08 hrs = 207 hours

Costs:
 207 hours x \$25.72 = \$5,324

Total Coal Responses	= 65,362
Total Coal Hours	= 5,228
Total Coal Costs	= \$135,342

Total Metal and Nonmetal and Coal Burden Hours and Costs:

GRAND TOTAL RESPONSES:

Metal and Nonmetal	= 20,188
Coal	= <u>65,362</u>
Total Responses	= 85,550

GRAND TOTAL BURDEN HOURS:

Metal and Nonmetal	= 1,627 Hours
Coal	= <u>5,228 Hours</u>
Total Hours	= 6,855 Hours

GRAND TOTAL BURDEN HOUR COSTS:

Metal	= \$39,921
Coal	= <u>\$135,342</u>
Total Cost	= \$175,263

13. Provide an estimate for 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 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. Where the operator elects to use non-destructive wire rope testing for compliance with MSHA standards, additional costs are incurred.

MSHA estimates that 40% of the wire ropes in service at Metal and Nonmetal and Coal Mine operations utilize 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), the charts and recommendations on continued service are the records that are sent to the mine operator.

40% x 286 operations x 3 wire ropes non-destructive tests x 2 per year x \$500 per test = \$343,200

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 reporting in Items 13 or 14 of the OMB Form 83-I.

The increase in burden hours can be attributed to an increase in the number of mining operations with personnel hoisting equipment. The increase in costs is the result of wage increases and increases in the burden hours.

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.

There are no forms associated with this information collection; 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 certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submission," of OMB 83-I.

There are no exceptions to the certification statement.

B. COLLECTION OF INFORMATION EMPLOYMENT STATISTICAL METHODS

The agency should be prepared to justify its decision not to use statistical methods in any case where such methods might reduce burden or improve accuracy of results. When Item 17 on the Form OMB 83-I is checked "Yes", the following documentation should be included in the Supporting Statement to the extent that it applies to the methods proposed:

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

2. Describe the procedures for the collection of information including:

- * Statistical methodology for stratification and sample selection,**
- * Estimation procedure,**
- * Degree of accuracy needed for the purpose described in the justification,**
- * Unusual problems requiring specialized sampling procedures, and**
- * Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.

5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

As statistical analysis is not required by the regulation, questions 1 through 5 do not apply.