

## SUPPORTING STATEMENT

Records of Tests and of Examinations of Personnel Hoisting Equipment 30 C.F.R. §§ 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. 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 bi-weekly to ensure that they remain in safe operating condition. 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. Further, 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 base line 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

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 and maintaining their hoist and shaft equipment for unsafe conditions.

**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 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.

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 Section 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 C.F.R. § 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.

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 14.

The following estimates are based on a total of 255 mining operations with personnel hoisting equipment (64 for Metal and Nonmetal and 191 for Coal) in the mining industry. Many of the mines have multiple hoists. Salaries are based on data from the U.S. Metal & Industrial Mineral Mine Salaries, Wages, & Benefits Survey results for 2005.

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

Title 30 C.F.R. Sections 56.19023(a), 56.19023(d), 56.19121, 57.19023(a), 57.19023(d), 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.

Recordkeeping Hours:

64 operations x 260 daily exams x .08 hours	=	1,332 hours
64 operations x 26 biweekly exams x .08 hours	=	133 hours

**Total Metal and Nonmetal Hours: 1,465 hours**

Costs:

Recordkeeping: (Clerk) 1,465 hours x \$22.17 =	<u>\$ 32,479</u>
<b>Total Metal/Nonmetal Costs:</b>	<b>\$32,479</b>

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

Title 30 C.F.R. §§ 56.19022, 56.19023(c), 56.19023(e), 57.19022, 57.19023(c), 57.19023(e), 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. Each of the 18 new wire ropes installed per year require initial diameter measurements. These initial measurements are made once for each rope. The measurements take 1 hour. Tests and measurements to evaluate each wire rope's wear are made twice a year at all 64 hoisting operations. Further, at least once every six months non destructive tests are required to be conducted of the active length of rope or rope diameter measurements made of all wire ropes, whether newly installed or already in service. The notations of measurements or test results take about 9 minutes (0.15 hour) per response.

Initial Examination and recordkeeping:

18 diameter measurements x 1 hour	= 18 hours
-----------------------------------	------------

Semi-annual recordkeeping:

64 operations x 2 exams/year x .15 hours	= <u>19 hours</u>
<b>Total Metal/Nonmetal Hours:</b>	<b>37 hours</b>

Costs:

Initial measurements: 18 hours x \$47.10	=\$ 848
Recordkeeping: 19 hrs x \$22.17	= <u>\$ 421</u>
<b>Total Metal and Nonmetal Costs:</b>	<b>\$1,269</b>

**Total Burden Hours (Metal and Nonmetal):**

Daily, and Biweekly Examinations at All Mines:	= 1,465 hours
Initial and Semiannual Wire Rope Measurements at all Metal and Nonmetal mines:	= <u>37 hours</u>
<b>Total Metal/Nonmetal Hours:</b>	<b>1,502 hours</b>

**Total Metal/Nonmetal Costs**

Daily, and Biweekly Examinations at All Mines:	=\$32,479
Initial and Semiannual Wire Rope Measurements at all Metal and Nonmetal mines :	= <u>\$ 1,269</u>
<b>Total Metal/Nonmetal Costs:</b>	<b>\$33,748</b>

**(I) Daily and Biweekly Examinations at Coal Mines**

Title 30 C.F.R. §§ 75.1400-4 (Underground mines daily examinations and record), 75.1433(d) (Underground Mines bi-weekly visual examination), 77.1404 (Surface mine daily examination and record), and 77.1433(d) (Surface mine bi-weekly visual examination examinations) 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 records show that on the

average each respondent (surface facility or underground coal mine) will have 3 personnel hoists (1 slope hoist with a single wire rope, 1 vertical shaft man and materials hoist with a single load bearing rope and a tail/counter weight rope and one elevator with six load bearing wire ropes) or 9 wire ropes per respondent. However, 30 C.F.R. §§ 75.1430 and 77.1430 exclude wire ropes on elevators from biweekly visual 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 C.F.R. § 77.1906(c).

MSHA estimates that all hoist and wire rope examinations, and tests are conducted or prepared by senior maintenance personnel and estimates the cost per hour for such individual to be \$63.39. Cost for clerks performing the recordkeeping is estimated at \$22.80 per hour. **(U.S. Coal Mine Salaries, Wages and Benefits - 2005 Survey Results, Western Mine Eng, Inc.).**

Recordkeeping for Examinations Hours:

191 operations x 260 daily exams x .08 hours	= 3,973 hours
191 operations x 26 bi-weekly exams x .08 hours	= <u>397 hours</u>
Total Coal Recordkeeping Hours:	4,370 hours

Costs

Recordkeeping (Clerk): 4,370 hours x \$22.80	= \$ 99,636
<b>Total Costs</b>	<b>\$ 99,636</b>

**(II) Initial and Semiannual Wire Rope Measurement or Non-Destructive Testing for Personnel Hoist Ropes at Surface and Underground Coal Mines**

Title 30 C.F.R. §§ 75.1432 (Underground mines initial wire rope measurements and record), 75.1433(c) (Underground 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 mine twice annual 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 measurements of each new wire rope requires approximately 4 hours to take and record the caliper measurements and that approximately 33.3% of the ropes in-service are replaced each year. The rope attachment equipment and the visible condition (wear, broken wires or corrosion) is also examined during the subsequent caliper measurement process. Initial wire rope measurement require greater expenditures of time because a new rope must hang under load and stretch for varying periods of time dependent upon diameter and the length of rope. Consequently, several iterations of preparing to caliper the rope diameter may be required before reliable and representative measurements may be taken and recorded to serve as the baseline for measuring rope wear and distortion.

MSHA also estimated that each non-destructive test of a wire rope or caliper measurement of a rope will take approximately .08 hour to record. MSHA records show that on the average each respondent (surface facility or underground coal mine) will have 3 personnel hoists (1 slope hoist with a single wire

rope, 1 vertical shaft man and materials hoist with a single load bearing rope and a tail/counter weight rope and one elevator with six load bearing wire ropes) or 9 wire ropes per respondent. However, 30 C.F.R. §§ 75.1430 and 77.1430 exclude wire ropes on elevators from the requirement of initial measurements and twice annual non-destructive testing so that only 3 ropes per respondent are required to have initial measurements and non-destructive testing or caliper measurements.

30 C.F.R. §§ 75.1433 and 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.

Initial measurements and recordkeeping:

191 operations x 3 wire rope initial measurements x 33.3% x 4 hours	= 763 hours
--	-------------

Semi-annual Recordkeeping:

191 operations x 3 wire ropes x twice annual callipering in lieu of non-destructive testing measurements recording x 60% x .08 hours	= <u>55 hours</u>
Total	= 818 hours

<b>Total Wire Rope Hours</b>	<b>818 Hours</b>
------------------------------	------------------

Costs:

Examinations (Supervisor): 763 hours x \$63.39	= \$48,367
Recordkeeping (Clerk): 70 hours x \$22.80	= <u>\$ 1,596</u>
<b>Total Wire Rope Costs</b>	<b>\$49,963</b>

(III) Tests of Safety Catches at Underground Coal Mines

Title 30 C.F.R. §§ 75.1400(c) and 75.1400-2 (Underground 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 estimated that it will take 5 minutes (.08 hours) to record the results.

Recordkeeping for Safety Catch Systems

191 operations x 6 bi-monthly safety catch tests x 2 (1 man cage and 1 brake-car) x .08 hours	= 183 hours
--	-------------

Costs:

Recordkeeping (Clerk): 183 x \$22.80	= \$ 4,172
--------------------------------------	------------

<b>Total Coal Hours</b>	<b>5,371</b>
<b>Total Coal Costs</b>	<b>\$153,771</b>

**Total Metal/Nonmetal and Coal Burden Hours and Costs:**

GRAND TOTAL BURDEN HOURS:		
Metal		= 1,502 Hours
Coal		= <u>5,371 Hours</u>
		<b>6,873 Hours</b>
GRAND TOTAL BURDEN HOUR COSTS:		
Metal		= \$ 33,748
Coal		= \$ <u>153,771</u>
		<b>\$187,519</b>

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

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.

$$40\% \times 255 \text{ operations} \times 3 \text{ wire ropes non-destructive tests} \times 2 \text{ per year} \times \$500/\text{rope test} = \$306,000$$

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

The decrease in burden hours from 67,698 to 6,873 and the decrease in responses from 251,797 to 76,247 is due to recalculation based on the fact that certain testing and measurement requirements are independent from the recordkeeping. That is, an operator's failure to perform the required testing and measurements constitutes independent violations that are citable even if the C.F.R. sections requiring recordkeeping did not exist. The burden of these tasks is not attributable to the recordkeeping requirement. The number of respondents increased slightly, and as a result the contractor costs in item 13 increased proportionately.

**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**

These collections of information do not employ statistical methods.

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

## **An Act**

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.  
That this Act may be cited as the "Federal Mine Safety and Health Act of 1977".*

### MANDATORY SAFETY AND HEALTH STANDARDS

SEC. 101. (a) The Secretary shall by rule in accordance with procedures set forth in this section and in accordance with section 553 of title 5, United States Code (without regard to any reference in such section to sections 556 and 557 of such title), 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 or other mines.

**30 CFR § 56.19022**

## Initial measurement.

After initial rope stretch but before visible wear occurs, the rope diameter of newly installed wire ropes shall be measured at least once in every third interval of active length and the measurements averaged to establish a baseline for subsequent measurements. A record of the measurements and the date shall be made by the person taking the measurements. This record shall be retained until the rope is retired from service.

**30 CFR § 56.19023**

## Examinations.

(a) At least once every fourteen calendar days, each wire rope in service shall be visually examined along its entire active length for visible structural damage, corrosion, and improper lubrication or dressing. In addition, visual examination for wear and broken wires shall be made at stress points, including the area near attachments, where the rope rests on sheaves, where the rope leaves the drum, at drum crossovers, and at change-of-layer regions. When any visible condition that results in a reduction of rope strength is present, the affected portion of the rope shall be examined on a daily basis.

(b) Before any person is hoisted with a newly installed wire rope or any wire rope that has not been examined in the previous fourteen calendar days, the wire rope shall be examined in accordance with paragraph (a) of this section.

(c) At least once every six months, nondestructive tests shall be conducted of the active length of the rope, or rope diameter measurements shall be made--

(c)(1) Wherever wear is evident;

(c)(2) Where the hoist rope rests on sheaves at regular stopping points;

(c)(3) Where the hoist rope leaves the drum at regular stopping points; and

(c)(4) At drum crossover and change-of-layer regions.

(d) At the completion of each examination required by paragraph (a) of this section, the person making the examination shall certify, by signature and date, that the examination has been made. If any condition listed in paragraph (a) of this section is present, the person conducting the examination shall make a record of the condition and the date. Certifications and records of examinations shall be retained for one year.

(e) The person making the measurements or nondestructive tests as required by paragraph (c) of this section shall record the measurements or test results and the date. This record shall be retained until the rope is retired from service.

**30 CFR § 56.19121**

## Recordkeeping.

At the time of completion, the person performing inspections, tests, and maintenance of hoisting equipment required in standard [56.19120](#) shall certify, by signature and date, that they have been done. A record of any part that is not functioning properly shall be made and dated. Certifications and records shall be retained for one year.

(Sec. 101, Pub. L. 91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 (30 U.S.C. 811))

**30 CFR § 57.19022**

## Initial measurement.

After initial rope stretch but before visible wear occurs, the rope diameter of newly installed wire ropes shall be measured at least once in every third interval of active length and the measurements averaged to establish a baseline for subsequent measurements. A record of the measurements and the date shall be made by the person taking the measurements. This record shall be retained until the rope is retired from service.

**30 CFR § 57.19023**

## Examinations.

(a) At least once every fourteen calendar days, each wire rope in service shall be visually examined along its entire active length for visible structural damage, corrosion, and improper lubrication or dressing. In addition, visual examination for wear and broken wires shall be made at stress points, including the area near attachments, where the rope rests on sheaves, where the rope leaves the drum, at drum crossovers, and at change-of-layer regions. When any visible condition that results in a reduction of rope strength is present, the affected portion of the rope shall be examined on a daily basis.

(b) Before any person is hoisted with a newly installed wire rope or any wire rope that has not been examined in the previous fourteen calendar days, the wire rope shall be examined in accordance with paragraph (a) of this section.

(c) At least once every six months, nondestructive tests shall be conducted of the active length of the rope, or rope diameter measurements shall be made--

(c)(1) Wherever wear is evident;

(c)(2) Where the hoist rope rests on sheaves at regular stopping points;

(c)(3) Where the hoist rope leaves the drum at regular stopping points; and

(c)(4) At drum crossover and change-of-layer regions.

(d) At the completion of each examination required by paragraph (a) of this section, the person making the examination shall certify, by signature and date, that the examination has been made. If any condition listed in paragraph (a) of this section is present, the person conducting the examination shall make a record of the condition and the date. Certifications and records of examinations shall be retained for one year.

(e) The person making the measurements or nondestructive tests as required by paragraph (c) of this section shall record the measurements or test results and the date. This record shall be retained until the rope is retired from service.

**30 CFR § 57.19121**

## Recordkeeping.

At the time of completion, the person performing inspections, tests, and maintenance of shafts and hoisting equipment required in standard [57.19120](#) shall certify, by signature and date, that they have been done. A record of any part that is not functioning properly shall be made and dated. Certifications and records shall be retained for one year.

(Sec. 101, Pub. L. 91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 (30 U.S.C. 811))  
[60 FR 33719, June 29, 1995]

**30 CFR § 75.1400**

December 2007

Hoisting equipment; general.

- (a) Every hoist used to transport persons shall be equipped with overspeed, overwind, and automatic stop controls.
- (b) Every hoist handling a platform, cage, or other device used to transport persons shall be equipped with brakes capable of stopping the fully loaded platform, cage, or other device.
- (c) Cages, platforms, or other devices used to transport persons in shafts and slopes shall be equipped with safety catches or other no less effective devices approved by the Secretary that act quickly and effectively in an emergency. Such catches or devices shall be tested at least once every two months.
- (d) Hoisting equipment, including automatic elevators, used to transport persons shall be examined daily.
- (e) Where persons are transported into or out of a mine by a hoist, a qualified hoisting engineer shall be on duty while any person is underground. No such engineer, however, shall be required for automatically operated cages, platforms, or elevators.

### **30 CFR § 75.1400-2**

Hoists; tests of safety catches; records.

A record shall be made in a book of the tests, required by § 75.1400, of the safety catches or other devices approved by the Secretary. Each entry shall be signed by the person making the tests and countersigned by a responsible official.

SOURCE: [35 FR 17890](#), Nov. 20, 1970; [52 FR 24377](#), June 30, 1987; [60 FR 30401](#), June 8, 1995; [61 FR 9828](#), March 11, 1996, unless otherwise noted.

AUTHORITY: [30 U.S.C. 811](#).

30 C. F. R. § 75.1400-2, 30 CFR § 75.1400-2

Current through September 20, 2007; 72 FR 53906

### **30 CFR § 75.1400-4**

Certifications and records of daily examinations.

At the completion of each daily examination required by [§75.1400](#), the person making the examination shall certify, by signature and date, that the examination has been made. If any unsafe condition is found during the examinations required by [§75.1400-3](#), the person conducting the examination shall make a record of the condition and the date. Certifications and records shall be retained for one year.

### **30 CFR § 75.1432**

Initial measurement.

After initial rope stretch but before visible wear occurs, the rope diameter of newly installed wire ropes shall be measured at least once in every third interval of active length and the measurements averaged to establish a baseline for subsequent measurements. A record of the measurements and the date shall be made by the person taking the measurements. This record shall be retained until the rope is retired from service.

### **30 CFR § 75.1433**

Examinations.

- (a) At least once every fourteen calendar days, each wire rope in service shall be visually examined along

its entire active length for visible structural damage, corrosion, and improper lubrication or dressing. In addition, visual examination for wear and broken wires shall be made at stress points, including the area near attachments, where the rope rests on sheaves, where the rope leaves the drum, at drum crossovers, and at change-of-layer regions. When any visible condition that results in a reduction of rope strength is present, the affected portion of the rope shall be examined on a daily basis.

(b) Before any person is hoisted with a newly installed wire rope or any wire rope that has not been examined in the previous fourteen calendar days, the wire rope shall be examined in accordance with paragraph (a) of this section.

(c) At least once every six months, nondestructive tests shall be conducted of the active length of the rope, or rope diameter measurements shall be made--

(1) Wherever wear is evident;

(2) Where the hoist rope rests on sheaves at regular stopping points;

(3) Where the hoist rope leaves the drum at regular stopping points; and

(4) At drum crossover and change-of-layer regions.

(d) At the completion of each examination required by paragraph (a) of this section, the person making the examination shall certify, by signature and date, that the examination has been made. If any condition listed in paragraph (a) of this standard is present, the person conducting the examination shall make a record of the condition and the date. Certifications and records of examinations shall be retained for one year.

(e) The person making the measurements or nondestructive tests as required by paragraph (c) of this section shall record the measurements or test results and the date. This record shall be retained until the rope is retired from service.

### **30 CFR § 77.1404**

Certifications and records of daily examinations.

At the completion of each daily examination required by [§77.1403](#), the person making the examination shall certify, by signature and date, that the examination has been made. If any unsafe condition is found during the examinations required by [§77.1403](#), the person conducting the examination shall make a record of the condition and the date. Certifications and records shall be retained for one year.

(Sec. 101, Federal Mine Safety and Health Act of 1977, Pub. L. 91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 (30 U.S.C. 811))

### **30 CFR § 77.1432**

Initial measurement.

After initial rope stretch but before visible wear occurs, the rope diameter of newly installed wire ropes shall be measured at least once in every third interval of active length and the measurements averaged to establish a baseline for subsequent measurements. A record of the measurements and the date shall be made by the person taking the measurements. This record shall be retained until the rope is retired from service.

### **30 CFR § 77.1433**

Examinations.

(a) At least once every fourteen calendar days, each wire rope in service shall be visually examined along its entire active length for visible structural damage, corrosion, and improper lubrication or dressing. In

addition, visual examination for wear and broken wires shall be made at stress points, including the area near attachments, where the rope rests on sheaves, where the rope leaves the drum, at drum crossovers, and at change-of-layer regions. When any visible condition that results in a reduction of rope strength is present, the affected portion of the rope shall be examined on a daily basis.

(b) Before any person is hoisted with a newly installed wire rope or any wire rope that has not been examined in the previous fourteen calendar days, the wire rope shall be examined in accordance with paragraph (a) of this section.

(c) At least once every six months, nondestructive tests shall be conducted of the active length of the rope, or rope diameter measurements shall be made--

- (1) Wherever wear is evident;
- (2) Where the hoist rope rests on sheaves at regular stopping points;
- (3) Where the hoist rope leaves the drum at regular stopping points; and
- (4) At drum crossover and change-of-layer regions.

(d) At the completion of each examination required by paragraph (a) of this section, the person making the examination shall certify, by signature and date, that the examination has been made. If any condition listed in paragraph (a) of this standard is present, the person conducting the examination shall make a record of the condition and the date. Certifications and records of examinations shall be retained for one year.

(e) The person making the measurements or nondestructive tests as required by paragraph (c) of this section shall record the measurements or test results and the date. This record shall be retained until the rope is retired from service.

### **30 CFR § 77.1906**

Hoists; daily inspection.

(a) Hoists used to transport persons shall be inspected daily. The inspection shall include examination of the headgear (headframe, sheave wheels, etc.), connections, links and chains, and other facilities.

(b) Prior to each working shift, and before a hoist is returned to service after it has been out of normal service for any reason, the hoist shall be run by the hoist operator through one complete cycle of operation before any person is permitted to be transported.

(c) At the completion of each daily examination required by paragraph (a) of this section, the person making the examination shall certify, by signature and date, that the examination has been made. If any unsafe condition in the hoisting equipment is present, the person conducting the examination shall make a record of the condition and the date. Certifications and records shall be retained for one year.

(Sec. 101, Federal Mine Safety and Health Act of 1977, Pub. L. 91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 (30 U.S.C. 811))