

## SUPPORTING STATEMENT

30 C.F.R. Sections 75.215, 75.220, 75.221, 75.222, and 75.223: Roof Control Plan. (Pertains to underground coal mines)

### 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 302(a) of the Federal Mine Safety and Health Act of 1977 (Mine Act) 30 U.S. C. § 846, requires that a roof control plan and revisions thereof suitable to the roof conditions and mining system of each coal mine be first approved by the Secretary of Labor (Secretary) before implementation by the operator. The plan must show the type of support and spacing approved by the Secretary, and the plan must be reviewed at least every six months by the Secretary.

30 C.F.R. § 75.220(a)(1) requires each mine operator to develop and follow a roof control plan, approved by the District Manager, that is suitable to the prevailing geological conditions and the mining system to be used at the mine. The standard also requires that additional measures are to be taken to protect persons if unusual hazards are encountered.

Under 30 C.F.R. § 75.221(a), the information required to be submitted and approved in the roof control plan includes the following: (1) the name and address of the company (2) the name, address, mine identification number and location of the mine; (3) the name and title of the company official responsible for the plan; (4) a description of the mine strata; (5) a description and drawings of the sequence of installation and spacing of supports for each method of mining used; (6) the maximum distance that an ATRS system is to be set beyond the last row of permanent support (if applicable); (7) specifications and installation procedures for liners or arches (if applicable); (8) drawings indicating the planned width of openings, size of pillars, method of pillar recovery, and the sequence of mining pillars; (9) a list of all support materials required to be used in the roof, face and rib control system; (10) the intervals at which test holes will be drilled when mechanically anchored tensioned roof bolts are used; and (11) a description of the methods to be used for the protection of persons from falling material at drift openings and when mining approaches within 150 feet of an outcrop. Under 30 C.F.R. § 75.215, the roof control plan for each longwall mining section is required to specify the methods that will be used to maintain a safe travelway out of the section through the tailgate side of the longwall and the procedures that will be followed if a ground failure prevents travel out of the section through the tailgate side of the longwall.

Roof control plans, and revisions to those plans, are evaluated by Mine Safety and Health Administration (MSHA) specialists in accordance with the criteria set forth in 30 C.F.R. § 75.222. The District Manager may require additional measures in plans and may approve roof control plans that do not conform to the applicable criteria in this section, provided that effective control of the roof, face, and ribs can be maintained.

30 C.F.R. § 75.223(a) requires a mine operator to propose revisions to the roof control plan when conditions indicate that the plan is not suitable for controlling the roof, face, ribs, or coal or rock bursts, or when accident and injury experience at the mine indicates the plan is inadequate. This section also

requires the accident and injury experience at each mine to be reviewed at least every six months. Under § 75.223(b) operators are also required to plot on a mine map each unplanned roof or rib fall and coal or rock burst that occurs in the active workings when certain criteria are met. Section 75.223(d) requires MSHA to review the plan every 6 months. This review requires MSHA to take into consideration any falls of the roof, face and ribs and the adequacy of the support systems used at the time.

**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.**

Roof Control plans provide the means to instruct miners in the proper use and placement of roof supports. The plan also provides a reference for mine supervisors to ensure that the mine is in compliance with the MSHA regulations relating to roof control. Roof control plans are evaluated by MSHA personnel to ensure that mine operators have complied with the regulatory provisions outlined in 30 C.F.R. §§ 75.202 through 75.223. MSHA inspectors also refer to the plans when they are conducting safety and health inspections at the mines.

Approved roof control plans from the different MSHA coal mine safety and health districts are reviewed by MSHA roof control specialists to determine compliance with the regulations and to evaluate the roof and rib support methods used to provide a safe working environment. As ground control questions arise, the review of different roof control plans can provide solutions to problems that have been successfully addressed by other districts. The sharing of roof control plans within the agency also allows inspectors to communicate the latest mining technology to the nation's mine operators and miners and allows them to take advantage of MSHA's technical ground support group that conducts studies on mining and support methods and evaluates their effectiveness. The success of this program is evidenced by the fact that Technical Support has evaluated numerous hazardous ground conditions at the nation's mining operations and suggested prudent methods of support based on scientific and proven ground control methods.

**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 existing burden. While there are no specific guidelines posted on MSHA's website, mine operators can submit the information electronically.

**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.**

Roof control plans are developed to address the unique roof conditions and mining methods at each mine. There is no similar or duplicate information that could be used.

**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.**

Roof control plans must be submitted by a mine operator when a new mine opens. If a mine operator takes over a mine where a roof control plan is already in place, the operator may choose to adopt that plan and not submit a new plan. Revisions to the roof control plan must be submitted when conditions indicate that the current plan is not suitable for controlling the roof, face, ribs, or coal or rock bursts, or when accident and injury experience at the mine indicates the plan is inadequate. Only the revised pages of the plan need to be submitted to MSHA unless otherwise specified by the District Manager. MSHA reviews the plans every 6 months to ensure that the roof control methods are adequate for the conditions and mining methods used at the mine. If MSHA finds that no changes are necessary, the mine operator need not submit any revisions.

**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.

Collection of information is consistent with the guidelines found in 5 C.F.R. §1320.5. While there is no specific provision requiring that roof control plans be maintained for at least three years, there must be a valid plan in effect for the entire time the mine is in operation. Without a valid plan, MSHA would not be able to determine whether miners were being exposed to hazardous roof conditions that could jeopardize their safety.

**8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years-even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

In accordance with 5 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 payment or gifts to the respondents identified by this collection.

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

There is no 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.**

Each underground coal mine operator is required to develop a roof control plan. 30 C.F.R. § 75.221 lists 11 items of information required to be included in each roof control plan which range from name, address, mine identification number, and location of the mine to a typical columnar section of the mine strata which identifies the type of strata and shows the thickness of each stratum up to and including the main roof above the coal bed for distance of at least 10 feet below the coal bed.

Some of this information may be retrieved fairly easily where as others may require more research time, especially when developing a new plan.

Revisions to plans, because they are based on an existing plan, do not require as much time. Revisions can occur as a response to an existing problem, instituting new technology, or as a cost savings to the mine operator. Again, some revisions may be considered more complex than others.

The burden estimated by MSHA employees who have prepared roof control plans while employed by industry have substantiated the time required to produce a roof control plan.

According to MSHA records, there were 613 underground coal mines requiring roof control plans in 2007. New roof control plans were submitted for 296 of those mines. While roof control plans vary according to the size and complexity of each individual mine, MSHA estimates that it takes approximately 24 hours for a mine operator to prepare a new roof control plan. The Supervisor/Operator wage rate of \$85.14 was used for these burden calculations.

296 new mines x 24 hours/plan = 7,104 hours

7,104 hours x \$85.14 per hour = \$604,835

In addition, MSHA estimates that each mine operator may need to submit plan revisions. An operator may submit more than one revision if conditions require it. In 2007, MSHA received 1,108 plan revisions. MSHA estimates that it takes a mine operator approximately 5 hours to draft a plan revision.

1,108 revisions x 5 hours/revision = 5,540 hours

5,540 hours x \$85.14 per hour = \$471,675

Underground coal mine operators are also required to plot each unplanned roof fall, rib fall, and coal rock burst on a mine map when such incidents meet the criteria specified in 30 C.F.R. §75.223(b). MSHA estimates that it takes 5 minutes (0.08 hours) to plot a roof fall or a coal or rock burst on a map. There were approximately 2,112 unplanned roof falls and coal or rock bursts which met such specified criteria and that occurred in underground coal mines in 2007.

2,112 roof falls/coal/rock bursts x 0.08 hours = 169 hours

169 hours x \$85.14 per hour = \$14,389

**Total Burden Hours = 12,813 hours**

**Total Burden Hour Cost = \$1,090,899**

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

. The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of 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.

Operation and Maintenance: MSHA estimates that the average copying and mailing cost for a new roof control plan or a plan revision is \$5.00

1,404 new and revised plans x \$5.00 = \$ 7,020

**Total Burden Costs = \$ 7,020**

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.

Based on internal review, MSHA personnel estimate that it takes approximately 16 hours to review and approve a new roof control plan. Based on a base salary of \$32.25 for an MSHA roof control specialist Grade 12 step 5 was used for these calculations.

296 new plans x 16 hours/ plan = 4,736 hours

4,736 hours x \$32.25 = \$ 152,736

In 2007, MSHA received 1108 roof control plan revisions. MSHA estimates that it takes approximately 4 hours to review a plan revision.

1,108 revisions x 4 hours/ plan = 4,433 hours

4,433 hours x \$32.25 per hour = \$ 142,964

**Total Cost to the Government = \$295,700**

**15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I.**

The number of underground coal mines requiring roof control plans decreased from 627 to 613. However, the increase in the number of new roof control plans (from 114 to 296) and plan revisions (from 812 to 1,108) varied based on the number of mine closures, new mines, equipment changes, and roof support system improvements (from 6,919 hours to 12,813 hours). Most of the increase in hours was a result of more new roof control plans being developed which require a greater number of hours to complete than the revisions. The number of respondents overall increased from 2,465 to 3,516.

Costs for this submission increased slightly due to an increase in the number of plans submitted.

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

The results of this information collection are not scheduled for publication.

**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 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 Submissions," of OMB Form 83-I.**

There are no certification exceptions identified with this information collection.

**B. COLLECTIONS OF INFORMATION EMPLOYING 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 method 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 persons(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.



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

## **An Act**

### **ROOF SUPPORT**

SEC. 302. (a) Each operator shall undertake to carry out on a continuing basis a program to improve the roof control system of each coal mine and the means and measures to accomplish such system. The roof and ribs of all active underground roadways, travelways, and working places shall be supported or otherwise controlled adequately to protect persons from falls of the roof or ribs. A roof control plan and revisions thereof suitable to the roof conditions and mining system of each coal mine and approved by the Secretary shall be adopted and set out in printed form within sixty days after the operative date of this title. The plan shall show the type of support and spacing approved by the Secretary. Such plan shall be reviewed periodically, at least every six months by the Secretary, taking into consideration any falls of roof or ribs or inadequacy of support of roof or ribs. No person shall proceed beyond the last permanent support unless adequate temporary support is provided or unless such temporary support is not required under the approved roof control plan and the absence of such support will not pose a hazard to the miners. A copy of the plan shall be furnished the Secretary or his authorized representative and shall be available to the miners and their representatives.