



DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Parts 56, 57 and 77

[Docket No. MSHA-2018-0016]

RIN 1219-AB91

Safety Program for Surface Mobile Equipment

AGENCY: Mine Safety and Health Administration, Labor.

ACTION: Proposed rule; request for comments.

SUMMARY: The Mine Safety and Health Administration (MSHA) is proposing to require that mine operators employing six or more miners develop and implement a written safety program for mobile and powered haulage equipment (excluding belt conveyors) at surface mines and surface areas of underground mines. The written safety program would include actions mine operators would take to identify hazards and risks to reduce accidents, injuries, and fatalities related to surface mobile equipment. The proposal would offer mine operators flexibility to devise a safety program that is appropriate for their specific mining conditions and operations.

DATES: Comments must be received or postmarked by midnight Eastern Time on [INSERT DATE **60** DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Submit comments and informational materials, identified by RIN 1219-AB91 or Docket No. MSHA-2018-0016

by one of the following methods:

- *Federal E Rulemaking Portal:* <http://www.regulations.gov>. Follow the online instructions for submitting comments.
- *E Mail:* zzMSHA-comments@dol.gov.

- *Mail:* MSHA, Office of Standards, Regulations, and Variances, 201 12th Street South, Suite 4E401, Arlington, Virginia 22202-5452.
- *Hand Delivery or Courier:* 201 12th Street South, Suite 4E401, Arlington, Virginia, between 9:00 a.m. and 5:00 p.m. Monday through Friday, except federal holidays. Before visiting MSHA in person, call 202-693-9455 to make an appointment, in keeping with the Department of Labor’s COVID-19 policy. Special health precautions may be required.
- *Fax:* 202-693-9441.

Instructions: All submissions must include RIN 1219–AB91 or Docket No. MSHA 2018-0016. Do not include personal or proprietary information that you do not wish to disclose publicly. If a commenter marks parts of a comment as “business confidential” information, MSHA will not post those parts of the comment. Otherwise, MSHA will post all comments without change, including personal information.

Docket: For access to the docket to read comments and background documents, go to <http://www.regulations.gov>. The docket can also be reviewed in person at MSHA, Office of Standards, Regulations, and Variances, 201 12th Street South, Arlington, Virginia, between 9:00 a.m. and 5:00 p.m. Monday through Friday, except federal holidays. Before visiting MSHA in person, call 202-693-9455 to make an appointment, in keeping with the Department of Labor’s COVID-19 policy. Special health precautions may be required.

Email Notification: To subscribe to receive an email notification when MSHA publishes rulemaking documents in the Federal Register, go to <https://public.govdelivery.com/accounts/USDOL/subscriber/new>.

Information Collection Requirements: Comments concerning the information collection requirements of this proposal must be clearly identified with RIN 1219-AB91

or Docket No. MSHA 2018-0016, and be sent to both MSHA and the Office of Management and Budget (OMB).

- Comments to MSHA may be sent by one of the methods in the ADDRESSES section above.
- Comments to OMB may be sent by mail to the Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, 725 17th Street, NW, Washington, DC 20503, Attn: Desk Officer for DOL MSHA.

FOR FURTHER INFORMATION CONTACT: Jessica Senk, Director, Office of Standards, Regulations and Variances, MSHA at Senk.Jessica@dol.gov (email), 202-693-9440 (voice) or 202-693-9441 (facsimile).

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I. Background Information

At surface mines and at surface areas of underground mines, a wide range of mobile and powered haulage equipment is in use. Examples of such equipment are bulldozers, front-end loaders, skid steers, and haul trucks. While accidents at mines are declining, accidents involving mobile and powered haulage equipment are still a leading cause of fatalities in mining. Of all 739 fatalities that occurred at U.S. mines between 2003 and 2018, 109 were caused by hazards related to working near or operating mobile and powered haulage equipment at mines with six or more miners. To reduce the number of injuries and fatalities involving mobile and powered haulage equipment, the Mine Safety and Health Administration (MSHA) has launched several actions, including providing technical assistance, developing training materials, and gathering information from the public and mining stakeholders. MSHA is now proposing a rule to improve safety in the use of surface mobile equipment, defined as mobile and powered haulage equipment (except belt conveyors), at surface mines and surface areas of underground mines. This proposal is based on the information gathered from many stakeholders; the details are presented in the section-by-section analysis portion of this preamble.

A. Request for Information (RFI)

On June 26, 2018, MSHA published a request for information (RFI), *Safety Improvement Technologies for Mobile Equipment at Surface Mines, and for Belt Conveyors at Surface and Underground Mines* (83 FR 29716), that focused on technologies for reducing accidents involving mobile equipment at surface mines and surface areas of underground mines, and belt conveyors at surface and underground mines.

The RFI also requested information from the mining community on what types of engineering controls are available, how to implement such engineering controls, and how these controls could be used in mobile equipment and belt conveyors to reduce accidents, fatalities, and injuries. MSHA sought information and data on: (1) seat belt interlock systems or other controls that affect equipment operation when the seat belt is not properly fastened; (2) collision warning systems and collision avoidance systems that may reduce collisions or prevent accidents by decreasing blind areas that are invisible to equipment operators due to direct line of sight or other reasons; (3) technologies that would provide equipment operators better information regarding their location in relation to the edge of highwalls or dump points; (4) use of autonomous mobile equipment at surface mines; (5) technologies that provide additional protections from accidents related to working near or around belt conveyors; and (6) training and technical assistance that improve equipment operators' awareness of hazards at the mine site, and assure miners lock and tag conveyor belts before performing maintenance work.

To encourage additional public participation, the Agency held six stakeholder meetings and one webinar in August and September 2018. The meetings were held in Birmingham, Alabama; Dallas, Texas; Reno, Nevada; Beckley, West Virginia; Albany, New York; and Arlington, Virginia.

B. Comments Received on the RFI

All commenters supported MSHA's focused efforts to improve miner safety related to the operation of surface mobile equipment. Some emphasized the use of technologies to achieve this goal, while others argued for the importance of non-technological interventions such as safety programs to bring behavioral and cultural changes. Commenters also differed in how technological and non-technological interventions should be implemented.

Several commenters supported incorporating new technologies into the workplace to reduce accidents, injuries, and fatalities. One commenter noted that the use of current automobile technologies such as collision avoidance systems, collision warning systems, seat belt warning signals, and other engineering controls could add much-needed improvement in preventing collision accidents or mitigating their impacts.

A majority of commenters noted, however, that the application of engineering controls or technologies needs further review by MSHA and the National Institute for Occupational Safety and Health (NIOSH) before any regulatory changes are made. One commenter noted that because the issues MSHA raised vary at different mines and with different types of equipment and operations, it is critical to understand how specific hazards at a mine would be addressed through new technologies. Other commenters asserted that the best outcomes occur when mine operators and their employees partner with other stakeholders such as NIOSH and equipment manufacturers, to introduce innovative solutions into the workplace through the use of new technologies. One commenter noted that to comprehensively address solutions, MSHA needs to acknowledge certain factors that can limit mine operators' ability to introduce new safety technology effectively. These obstacles include mistrust of technology by the workforce, inadequate testing of technology before full implementation, and challenges in communicating to miners why technological improvements in equipment operation create a safer work environment. A trade association recommended that MSHA proceed with

caution to avoid excessive costs and unintended consequences that do not address the root causes of accidents.

On the other hand, a number of commenters noted that non-technological interventions such as safety programs are as important, or even more important, than technology in improving safety in the use of surface mobile equipment and reducing accidents, injuries, and fatalities. A mining coalition commented that because human factors are a major contributor to accidents, properly enforced comprehensive safety programs are a significant component of the solution, with or without new technology. This mining coalition continued to note that mining's major safety advances would "come from consistently improving behavior and culture across the industry." The mining coalition also stated on the basis of its members' experiences that safety does best when mine operators develop and implement their own comprehensive safety programs. Another commenter noted that effective safety programs work because they create incentives for compliance and disincentives for violations.

In addition, one commenter observed that mine operators who develop and implement safety programs do so with the goal of preventing injuries, fatalities, and the suffering these accidents cause miners, their families, and their communities. For these mine operators, noted the commenter, preventing harm to their miners is more than just compliance with safety requirements; it reflects a culture of safety. Indeed, according to the commenter, this culture of safety derives from a commitment to a systematic, effective, and comprehensive management of safety at mines with the full participation of the miners.

MSHA has been most persuaded by comments on the use of safety programs. The Agency agrees with these commenters that mine operators should be allowed to tailor safety programs specifically to their mining conditions and operations, so that operators could: (1) systematically and continuously evaluate their mine operations to

identify hazards and (2) determine how to eliminate or mitigate risks and hazards related to operating and working near surface mobile equipment, which includes mobile and powered haulage equipment (except belt conveyors). The Agency further agrees that such a flexible approach to reducing hazards and risks (e.g., not imposing universal mandates) would be more effective since mine operators would be able to develop and implement safety programs that work for their operation, mining conditions, and miners. Taking into account all comments and information received, this proposal would require written safety programs for surface mobile equipment at surface mines and surface areas of underground mines with six or more miners.

In the 2018 RFI, MSHA sought information on safety issues related to belt conveyors. After reviewing the comments, the Agency has concluded, at this time, that the safety issues surrounding the operation of belt conveyors can be better addressed through best practices and training than through rulemaking. No belt conveyor is covered under this proposed rule.

MSHA solicits comments regarding the Agency's decision to exclude belt conveyors from the proposed rule. Please provide the rationale and any supporting documentation in your comment.

C. Workplace Safety Programs

Many resources are available for employers to provide a safe workplace. MSHA has reviewed several types of organizations that provide guidance on safety programs: (1) consensus standards organizations (e.g., American Society of Safety Professionals (ASSP), Occupational Health and Safety Management Systems, ANSI/ASSP Z10-2012 (R2017); and the International Standards Organization (ISO), Occupational Health and Safety Management Systems – Requirements With Guidance for Use (ISO 45001:2018)); (2) industry organizations (e.g., the National Mining Association's CORESafety and Health Management System); and (3) government agencies (e.g., the Department of

Transportation, 49 CFR part 270). The Department of Labor's Occupational Safety and Health Administration (OSHA) also has developed recommended practices for developing safety and health programs (<https://www.osha.gov/shpguidelines/>).

Generally, safety programs recommended by these organizations share the following principles. First, safety programs should address safety proactively rather than reactively. In other words, addressing problems only after an employee is injured is less effective than finding and fixing hazards before injuries and fatalities occur. Second, safety programs should take into account work processes and conditions specific to the workplaces and should make sense for the organizations that implement them. Third, safety programs should not be static and should be continually improving, based on monitoring and evaluating work performance and safety outcomes, scanning and assessing risks of mining conditions and operations, and evaluating use of emerging technologies.

In addition, most of the safety programs include a set of interacting elements that are designed to establish and achieve similar safety goals. Specifically, a safety program includes a common set of elements that focus on identifying hazards in the workplace and developing a plan for preventing and controlling those hazards. Examples of common elements include management commitment; worker involvement; hazard identification, prevention, and remediation, including workplace examinations for violations of mandatory safety and health standards; worker training and education; and program evaluation.

Based on its review of best practices and guidance on safety programs, together with comments gathered from a variety of stakeholders in mining communities, MSHA has concluded that developing and implementing a written safety program for surface mobile equipment at mines would contribute to advancing miners' safety and health. For this reason, MSHA is now issuing a proposal that would require mine operators with six

or more miners to develop, implement, and update a written safety program for surface mobile equipment.

D. Written Safety Program for Surface Mobile Equipment

This proposal would address hazards related to mobile equipment and powered haulage equipment (except belt conveyors) used at surface mines and in surface areas of underground mines. MSHA believes that mine safety would be substantially improved when mine operators implement written safety programs that promote a culture of safety, take a holistic approach to safety and health, and encourage technological solutions to prevent or mitigate hazards. The Agency also believes that miners' safety would be improved if mine operators: (1) continually evaluate their operations to identify hazards resulting from operating and working near surface mobile equipment and (2) identify controls that prevent or mitigate these hazards, including the use of technology to reduce accidents, injuries, and fatalities.

The proposed written safety program would be required only for operators employing six or more miners. Over the years, MSHA has observed that mine operators with five or fewer miners generally have a limited inventory of surface mobile equipment. These operations also tend to have less complex mining operations, with fewer mobile equipment hazards that would necessitate a written safety program.

Although these mine operators are not required to have a written safety program, MSHA encourages mine operators with five or fewer miners to assure that surface mobile equipment hazards at their mines would be mitigated to the greatest extent possible. For mines employing five or fewer miners, MSHA's Educational Field and Small Mine Services (EFSMS) would provide assistance in the development and improvement of safety programs for mine operators and contractors in the mining community. Also, MSHA's EFSMS staff would encourage state grantees to focus on providing training to

address hazards and risks involving surface mobile equipment in small mining operations.

The written safety program would list actions that mine operators would take to identify hazards and reduce risks, develop equipment maintenance and repair schedules, evaluate technologies, and train miners. The proposal would provide mine operators with the flexibility to tailor the written safety program to meet the specific needs of their operations and unique mining conditions. Under the proposal, mine operators would be required to evaluate and update the written safety program whenever necessary to manage safety risks associated with their surface mobile equipment appropriately.

A written safety program is an important part of a mine operator's overall safety program to prevent workplace injuries, illnesses, or deaths. A written safety program, as opposed to an oral one, is one that's more likely to be followed by mine operators and miners. The specific contents of an operator's written safety program do not need MSHA approval, but a written program serves other purposes beyond simply meeting regulatory requirements because it: (1) reinforces that the mine operator/management is serious about safety; (2) provides benchmarks against which safety performance can be measured and verified; and (3) prevents confusion about authority, responsibility, and accountability. Furthermore, a written safety program which is reviewed regularly can clarify policy, create consistency and continuity, provide a basis for making decisions relative to when changes are needed, and serve as a checkpoint whenever there is a question regarding the use of surface mobile equipment at surface mines and surface areas of underground mines.

As is MSHA's practice, the Agency would provide mine operators with guidance needed to develop, implement, evaluate, and update their safety programs, if requested. MSHA would also work with mining industry stakeholders as it develops materials and templates to assist mine operators.

II. Section-by-Section Analysis

This proposal would require mine operators to develop a written safety program in which they would systematically identify and evaluate risks of surface mobile equipment used at their mines to eliminate or mitigate safety hazards and reduce accidents, injuries, and fatalities. The safety program should be designed so that it promotes and supports a safety culture at the mine. Since each mine has a unique environment, MSHA is proposing to allow each mine operator the flexibility to develop a safety program that addresses its specific types of surface mobile equipment and mining conditions and operations.

A. Sections 56.23000, 57.23000 and 77.2100 – Scope and purpose

Proposed §§ 56.23000, 57.23000 and 77.2100 address the purpose and scope of the proposal. The purpose of the safety program is to reduce accidents, injuries, and fatalities related to the operation of surface mobile equipment. Operators covered by this part would be required to develop, implement, and update a written safety program for mobile equipment used at surface mines and at surface areas of underground mines.

MSHA recognizes that mine operations are diverse, with varying mining methods, mining conditions and operations, types of mobile equipment, and mined commodities. Under this proposal, mine operators would have the flexibility to develop effective safety programs that best meet the unique conditions of their mines to prevent accidents, injuries, and fatalities involving surface mobile equipment. Indeed, mine operators with existing effective safety programs would likely need to make few adjustments, if any, to their existing programs and practices to meet the requirements of this proposal.

Proposed §§ 56.23000, 57.23000 and 77.2100 would require mine operators employing six or more miners to develop a written safety program. Based on Agency experience and data, a mine operator with five or fewer miners would generally have a limited inventory of surface mobile equipment. These operators would also have less

complex mining operations, with fewer mobile equipment hazards that would necessitate a written safety program. Although these mine operators are not required to have a written safety program, MSHA would encourage operators with five or fewer miners to have safety programs. As stated earlier, for mines with five or fewer miners, MSHA's EFSMS would provide compliance assistance to operators in developing a safety program, such as making examples of model safety programs available at the Agency's website. Also, MSHA would encourage its state grantees to focus on providing training to address hazards and risks involving surface mobile equipment in small mining operations.

MSHA believes that these small mine operators would be able to accomplish the goals of this proposal through existing requirements (for example, 30 CFR parts 56, 57, and 77) relating to the use of written hazard warnings, oral instruction, signs and posted warnings, walkaround training, or other appropriate means that alert persons to site-specific hazards at the mine. However, to assure that surface mobile equipment hazards at these mines are mitigated to the greatest extent possible, MSHA intends to use its EFSMS resources as stated earlier.

The proposal is premised on MSHA's experience and data that, as a mine operation grows, the number and size of surface mobile equipment used at the mine usually increase, as do the complexity of the hazards that occur at the mine. MSHA believes that mines employing six or more miners often have more complex mining operations and more surface mobile equipment.

MSHA estimates that about 41 percent of all mines in the U.S. employ six or more miners and that about 88 percent of all miners in the U.S. work at mines employing six or more miners. MSHA requests comments on whether the Agency should require all mine operators, regardless of size, to develop a written safety program. MSHA is particularly interested in comments on the economic feasibility of requiring operators

with five or fewer miners to develop a written safety program. MSHA is also interested in comments and suggestions on alternatives or best practices that all mines might use to develop safety programs (whether written or not) for surface mobile equipment. MSHA solicits comments on requiring a non-written safety program for mines with five or fewer miners. Please provide the rationale and any supporting documentation in the comment. If a commenter marks parts of a comment as “business confidential” information, MSHA will not post those parts of the comment.

B. Sections 56.23001, 57.23001 and 77.2101 - Definitions

Proposed §§ 56.23001, 57.23001 and 77.2101 would define *responsible person* as a person with authority and responsibility to evaluate and update a written safety program for surface mobile equipment. MSHA believes that designating a person with authority and responsibility to evaluate and update the safety program as necessary would help assure the successful development and maintenance of a safety program that addresses and eliminates surface mobile equipment hazards at a particular mine. This individual should be able to communicate the operator’s commitment to safety and the importance of miners' involvement in the program to prevent or mitigate hazards. The responsible person must communicate the goals of the safety program to all miners, including contractors. The responsible person would need to have the experience and knowledge about mining conditions, including surface mobile equipment, necessary to develop and manage the safety program, as well as experience and knowledge necessary to maintain and evaluate any controls and best practices.

Proposed §§ 56.23001, 57.23001 and 77.2101 would define *surface mobile equipment* as wheeled, skid-mounted, track-mounted, or rail-mounted equipment capable of moving or being moved, and any powered equipment that transports people, equipment or materials, excluding belt conveyors, at surface mines and in surface areas of underground mines.

C. Sections 56.23002, 57.23002 and 77.2102 – Written Safety Program

Under proposed §§ 56.23002(a), 57.23002(a) and 77.2102(a), mine operators would develop and implement a written safety program for surface mobile equipment within 6 months after the effective date of the final rule. MSHA requests comments on whether the 6-month period provides mine operators sufficient time to develop and implement a written safety program that includes the elements in proposed §§ 56.23003(a), 57.23003(a) and 77.2103(a), and rationales for the comments.

Proposed §§ 56.23002(b), 57.23002(b) and 77.2102(b) would also require mine operators to designate a responsible person as described above within 6 months after the effective date of the final rule. MSHA requests comments on whether this provides mine operators sufficient time to meet the proposed requirements, and rationales for the comments.

D. Sections 56.23003, 57.23003 and 77.2103 – Requirements for Written Safety Program

Proposed §§ 56.23003(a), 57.23003(a) and 77.2103(a) would require a written safety program for surface mobile equipment to include four types of actions that mine operators would take in order to reduce accidents, injuries, and fatalities and to improve miners' safety.

Proposed §§ 56.23003(a)(1), 57.23003(a)(1) and 77.2103(a)(1) would require the safety program to include actions that would identify and analyze hazards and reduce the resulting risks related to the movement and operation of surface mobile equipment. Specifically, the proposal would require mine operators to identify, collect, and review information about hazards at their mines. These actions could include review of accident data and information on close calls or near misses, and any operational or maintenance accidents at their mines. Based on the information collected, mine operators would be

able to develop a program that more specifically addresses conditions at their mines and measures to eliminate, prevent, or mitigate hazards.

Proposed §§ 56.23003(a)(2), 57.23003(a)(2) and 77.2103(a)(2) would require operators to develop and maintain procedures and schedules for routine maintenance and non-routine repairs for surface mobile equipment. Operators must comply with MSHA's existing requirements for maintenance and repair, which include but are not limited to 30 CFR §§ 56.14100; 56.14105; 56.14211; 57.14100; 57.14105; 57.14211; 77.404(a); 77.404(c); 77.410(c); 77.1606(a) and (c); 77.1607(l); 77.1607(q); 77.405(a) and (b); 77.502; and 77.1302(b). Under this proposal, the mine operator would need to integrate existing compliance processes with any manufacturer's recommendations into the safety program and to assure that hazards in all phases of work be examined and analyzed. Existing processes include procedures for maintaining brakes and steering components, as well as procedures that assure pre-operational checks of equipment are conducted and then defects are corrected.

Proposed §§ 56.23003(a)(3), 57.23003(a)(3) and 77.2103(a)(3) would require that the program include actions the mine operator would take to evaluate currently available and newly emerging feasible technologies that can enhance safety and evaluate whether to adopt them. The safety program would include a process by which operators would periodically evaluate new and existing technologies that could enhance safety.

Examples of these technologies could include seat belt interlocks that affect equipment operation when a seat belt is not fastened; seatbelt notification systems that alert management when the seatbelts are not worn; collision warning systems and collision avoidance systems that may prevent accidents by alerting equipment operators to hazards located in blind areas; technologies that use Global Positioning Systems to provide equipment operators with information regarding their location when pushing and dumping material; as well as cameras, curvilinear mirrors, and other vision

enhancements. As stated earlier, for mines with five or fewer employees that would not be subject to this proposed rule, MSHA's EFSMS would provide assistance to operators who are interested in developing a safety program. Also, as part of the Agency's compliance assistance efforts, MSHA would work with operators and provide information and technical assistance that would help them investigate control options and the use of technology to prevent accidents and injuries. Furthermore, MSHA would encourage its state grantees to focus on providing training to address hazards and risks involving surface mobile equipment in small mining operations.

Proposed §§ 56.23003(a)(4), 57.23003(a)(4) and 77.2103(a)(4) would require operators to train miners and other persons at the mine necessary to perform work (e.g., office workers) to identify and address or avoid hazards related to surface mobile equipment. Training provided under this section would be met through existing training requirements, which include but are not limited to 30 CFR part 46 - Training and Retraining of Miners Engaged in Shell Dredging or Employed At Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines (§§ 46.3, 46.4, 46.5, 46.7, 46.8, 46.11, and 46.12); part 48 – Training and Retraining of Miners (§§ 48.23, 48.25, 48.26, 48.27, 48.28, and 48.31); and part 77 Mandatory Safety Standards, Surface Coal Mines and Surface Work Areas of Underground Coal Mines (§§ 77.404(b) and 77.1708).

Proposed §§ 56.23003(b), 57.23003(b) and 77.2103(b) would require the responsible person to evaluate and update the written safety program at least annually or as mining conditions or practices change, accidents or injuries occur, or as surface mobile equipment changes, or modifications are made. This proposed requirement would assure that the written safety program remains relevant and up to date. If a mine operator determines that the controls and procedures identified in the safety program are not effective (or are no longer relevant), further measures would need to be identified and

implemented to assure miners' safety. Similarly, mine operators would also need to evaluate safety programs during seasonal weather condition changes or whenever work processes or practices change. In fact, best practices shown by NIOSH, OSHA, and other voluntary consensus standards organizations include ongoing evaluations of workplace activities and processes for hazards. These ongoing evaluations could result in identifying new hazards, taking corrective actions, and investigating accidents and near-misses to determine root causes and making this information available to all miners at the mines.

E. Sections 56.23004, 57.23004 and 77.2104 - Record and inspection.

Proposed §§ 56.23004, 57.23004 and 77.2104 would require that the mine operator make available a copy of the written safety program for inspection by authorized representatives of the Secretary, miners, and representatives of miners, and provide a copy upon request.

F. Request for Comments.

MSHA is interested in any information and data associated with safety programs for surface mobile equipment. The Agency is particularly interested in the aspects of the safety programs that work best and are most effective. The Agency also is interested in comments on MSHA's proposal to require a written safety program for mine operators employing six or more miners. If a commenter marks parts of a comment as "business confidential" information, MSHA will not post those parts of the comment. The Agency is interested in receiving comments from all members of the mining community and all interested stakeholders. Where possible, please include specific examples to support the rationale.

III. Executive Order 12866: Regulatory Planning and Review; and Executive Order 13563: Improving Regulation and Regulatory Review

Executive Orders (E.O.) 13563 and 12866 direct agencies to assess all costs and

benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). E.O. 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility.

Under E.O. 12866, a significant regulatory action is one that meets any of a number of specified conditions, including the following: having an annual effect on the economy of \$100 million or more, creating a serious inconsistency or interfering with an action of another agency, materially altering the budgetary impact of entitlements or the rights of entitlement recipients, or raising novel legal or policy issues. MSHA has determined that the proposal would not be an economically significant regulatory action, pursuant to section 3(f) of E.O. 12866, because this proposal would not have an annual effect of \$100 million or more on the economy.

This section provides a summary of MSHA's cost and benefit estimates of the proposal. The proposed rule is estimated to have a 10-year total net benefit of \$343.0 million at a 7 percent discount rate, based on estimated benefits of \$470.9 million and costs of \$127.9 million. At that 7 percent discount rate, the estimated annualized net benefit is \$45.6 million (annualized benefits of \$62.7 million and annualized costs of \$17.0 million). Supporting materials and data that provide additional details on the methodology used to estimate the costs, benefits, and other required analyses of the proposal are included in the proposed rule docket at

<https://www.regulations.gov/docket?D=MSHA-2018-0016> and are posted on MSHA's web site at <https://www.msha.gov>.

A. Regulated Industry Description

The proposal would apply to surface mines and surface areas of underground mines, for mines employing six or more miners. As of 2018, there were 12,281 mines in

the U.S. – 1087 coal mines and 11,194 metal and nonmetal (MNM) mines. Of those mines, 5,027 mines (about 41 percent) had six or more miners working and would be subject to this proposal. Among a total of 223,289 workers at U.S. mines, 162,718 were reported to be miners. About 88 percent of the miners were working at mines with six or more miners. See Table 1 for additional details.

Table 1: Mines and Employment in 2018

	Number of Mines	Number of Miners	Total Employment
U.S. Total	12,281	162,718	223,289
Subject to Proposed Rule			
Coal mines with six or more miners	584	25,626	46,178
MNM mines with six or more miners	4,443	117,343	146,459
Subtotal	5,027	142,969	192,637
Not Subject to Proposed Rule			
Coal mines with five or fewer miners	503	1,379	7,238
MNM mines with five or fewer miners	6,751	18,370	23,414
Subtotal	7,254	19,749	30,652

Source: MSHA MSIS Data (reported on MSHA Form 7000-2)

Table 2 shows that in 2018 mining revenues were \$109.4 billion and miners worked 415.1 million hours. MSHA estimates coal revenue at \$27.2 billion using the production estimates multiplied by the revenue per ton. For the MNM revenue figures, MSHA used the estimate of \$82.2 billion from the U.S. Geological Survey’s (USGS) annual commodity report.

Table 2: Mining Revenues and Miner Hours in 2018

	Estimated Revenue (\$ billions)	Miner Work Hours (millions)
Coal mines	\$27.2	120.3
MNM mines	\$82.2	294.8
Total	\$109.4	415.1

Source: MSHA MSIS Data (total hours worked at mines and coal production reported on MSHA Form 7000-2 at \$35.99 per ton). USGS reported 2018 MNM revenues at \$82.2 billion. (U.S. Geological Survey, 2019, Mineral commodity

B. Benefits

MSHA believes that the proposed rule would improve miners' safety in important ways. Numerous published professional articles about safety describe the relationship between effective safety programs and accident reduction. For example, Maxey (2013, p. 14) describes the shared features of successful programs as follows: "These basic elements--management leadership, worker participation, hazard identification and assessment, hazard prevention and control, education and training, and program evaluation and improvement--are common to almost all existing health and safety management programs. Each element is important in ensuring the success of the overall program, and the elements are interrelated and interdependent."¹ MSHA's proposal would require mine operators to develop and implement a written safety program with six or more miners that covers the range of actions an operator would take to systematically evaluate and address risks to reduce accidents, injuries, and fatalities related to the operation of or working near surface mobile equipment.

The proposed safety program would create benefits through several mechanisms. First, the proposed safety program would include a variety of actions an operator would take to identify hazards and assess risks to reduce accidents, injuries, and fatalities. Second, MSHA believes the process of developing and maintaining a safety program would help create or improve a safety culture at the mine. As mine management and miners work together to identify hazards and determine appropriate controls to prevent or mitigate those hazards, they could come to share beliefs, practices, and attitudes about safety and to promote a positive safety culture.

In addition, MSHA believes that there would be additional unquantifiable

¹ Maxey, H. 2013. Safety & Small Business. The Compass. Pages 12-22. [<https://ASEE.org>.]

financial benefits, such as reduced insurance premiums and decreased downtime after accidents, stemming from the collaborative focus on safety by operators and miners.

MSHA is aware that some mine operators have developed safety programs based on the Occupational Safety and Health Administration (OSHA)'s recommended practices, or on consensus standards. These operators would have procedures in place already to continually identify workplace hazards and evaluate risks. MSHA is also aware that some states require, by either regulation or statute, a workplace safety plan or program for some or all employers including mine operators. Other states incentivize (through premium credits or public recognition) and support (with free training and consultations) safety programs.² Of those states that require safety programs, most require employers to develop procedures to identify controls to eliminate or mitigate identified hazards and evaluate the effectiveness of existing controls to determine whether they continue to protect employees. Although MSHA does not know to what degree state programs may overlap with this proposal, MSHA believes that some mine operators with effective existing safety programs and processes would likely need to make few, if any, adjustments to their programs to meet the requirements of the proposal.

Accident Data and Forecast

Under 30 CFR part 50, mine operators are required to submit a report of each accident, injury, and illness to MSHA within 10 working days after an accident or occupational injury occurs or an occupational illness is diagnosed. Based on the information collected from mine operators' reports, the Agency has analyzed accident and injury trends related to mining equipment, work locations, and tasks.

MSHA'S Quarterly Mine Injury and Worktime, Quarterly Reports (2018 report at <https://arlweb.msha.gov/Stats/Part50/WQ/2018/MIWQ%20Report%20CY%202018.pdf>) provides official data and definition for injuries. The injury occurrences are classified

² OSHA, Safety and Health Programs in the States White Paper, April 2016.

according to severity as follows:

1. FATAL: Occurrences resulting in death.
2. NFDL: Nonfatal occurrences with Days Lost (lost workdays). That is, nonfatal injury occurrences that result in days away from work or days of restricted work activity.
3. NDL: Occurrences with No Days Lost. That is, nonfatal injury occurrences resulting in loss of consciousness or medical treatment other than first aid, but not in any lost workdays.

For the period from 2003 to 2018, MSHA identified 109 fatalities and 1,543 nonfatal injuries that involved surface mobile equipment at mines employing six or more miners. Table 3 shows the annual number of fatal and nonfatal injuries caused by operating or working near surface mobile equipment at coal and MNM mines with six or more miners, from 2003 to 2018.

Table 3: Fatalities and Injuries
Involving Surface Mobile Equipment at All Covered Mines: 2003-18

Year	Fatalities	NFDL	NDL
2003	7	70	28
2004	6	94	44
2005	11	88	50
2006	7	104	51
2007	8	76	39
2008	6	100	40
2009	9	66	30
2010	6	76	23
2011	3	62	22
2012	6	55	15
2013	5	50	18
2014	9	53	31
2015	5	42	24
2016	5	40	18
2017	10	46	19
2018	6	49	20
Total	109	1071	472

MSHA developed 10-year baseline forecasts of injuries and fatalities with the

detailed coal and MNM data and the summary information shown in the following paragraphs. Table 4 shows the numbers of fatalities and injuries that MSHA projects would occur in the absence of any changes in the existing regulation. See the full Preliminary Regulatory Impact Analysis (PRIA), which is available in the docket, for the intermediary calculations and tables.

Table 4: Baseline Trend Forecast for Fatalities and Injuries

Year	Fatalities	NonFatal Injuries	
		NFDL	NDL
1	6	44	19
2	6	40	19
3	6	37	18
4	6	34	18
5	6	32	17
6	6	30	17
7	6	28	17
8	6	25	16
9	6	23	16
10	6	21	16

MSHA believes that a substantial percentage of accidents involving surface mobile equipment could be reduced if operators comply with the proposed rule, and it projects that the number of fatalities and injuries would be reduced by 80 percent as a result. MSHA believes it is likely that the severity of injuries would be reduced, creating an additional benefit, which is not quantified in this analysis. MSHA believes that as mine operators begin the process of developing their safety program, some benefits would be realized in the first year. Because mine operators would focus on safety during the development of their programs, injury rates would likely start falling even before the programs were complete. In the first year, MSHA therefore assumes injuries and fatalities would drop 10 percent (equivalent also to 10 percent of the full-year potential reduction) due to these improvements taking place as safety programs are finalized. Starting from the second year, MSHA expects that there would be considerably fewer accidents involving surface mobile equipment, leading to a substantial drop in the

number of fatalities and nonfatal injuries. MSHA solicits comments regarding the Agency’s proposed regulatory effectiveness. Please provide the rationale and any supporting documentation in your comment.

Table 5 shows the projected reduction in fatalities and nonfatal injuries related to surface mobile equipment for each of 10 years after the proposal takes effect. (A break-even analysis is discussed later, in the benefit monetization section.) Even though fatalities and injuries are always whole numbers, the projection of reduced fatalities and injuries includes decimal values to allow more accurate estimates of benefit monetization later. Supporting material and data that provide additional details on MSHA’s forecast including sensitivity analysis results are included in the proposed rule docket at <https://www.regulations.gov/docket?D=MSHA-2018-0016> and are posted on MSHA’s web site at www.msha.gov.

Table 5: Projected Reductions in Fatalities and Injuries
Involving Surface Mobile Equipment at All Covered Mines

Year	Fatalities	Nonfatal Injuries	
		NFDL	NDL
1*	0.48	3.52	1.52
2	4.80	32.00	15.20
3	4.80	29.60	14.40
4	4.80	27.20	14.40
5	4.80	25.60	13.60
6	4.80	24.00	13.60
7	4.80	22.40	13.60
8	4.80	20.00	12.80
9	4.80	18.40	12.80
10	4.80	16.80	12.80

* MSHA Assumes that due to timing of implementation, the startup will result in only 10% of likely reduction of the overall as the operators begin implementing their programs.

Benefit Monetization

To estimate the monetary value of the reductions in fatalities and nonfatal injuries, MSHA used an analysis that relies on the theory of compensating wage differentials (i.e., the wage premiums paid to workers to accept the risk associated with

various jobs) in the labor market. This theory grows out of the widely observed correlation between higher job risk and higher wages, which suggests that employees demand monetary compensation in return for incurring greater risk. The measure of risk reduction as applied to fatalities is known as the Value of a Statistical Life (VSL). Despite its name, VSL is not the valuation of life, but the valuation of reductions in risks. Following OMB Circular A-4 and adjusting for real income changes, MSHA has used a VSL value of \$13.6 million for the 2018 base year and \$13.9 million for the first year of rule implementation.³ By the tenth year, the VSL value reaches \$16.5 million.⁴

For NFDL and NDL injuries, MSHA used percentages of VSL. In the past, to estimate the cost of nonfatal lost-time injuries, MSHA used a value equivalent to 0.7 percent of VSL. The figure is taken from a 2003 meta-analysis by Viscusi & Aldy and represents the study's estimate of injury dollar value divided by the VSL. For this analysis, MSHA continues its use of 0.7 percent of VSL for NFDL injuries.

For the NDL injuries, as discussed in the PRIA, MSHA considered values from two sources. The National Safety Council (NSC) and the National Institute for Occupational Safety and Health (NIOSH) have analyzed injury costs and have continued to update their findings. NIOSH, which is part of the Centers for Disease Control and Prevention, focuses on researching and developing new knowledge related to worker safety and health and to transfer that knowledge into practice. The National Safety Council is recognized among safety professionals as a leading nonprofit safety advocate. The organization focuses on eliminating the leading causes of preventable injuries and deaths. The NIOSH data offers many values for individual industry groups, together with numerous percentile groupings, means, and medians, but no single overall value. By

³ In selecting this VSL, MSHA has taken into account recent VSL research and OMB Circular A-4 guidance, which underscore the need to reflect industry-specific risk profiles in calculating VSLs. For a detailed discussion, see the Preliminary Regulatory Impact Analysis.

⁴ The historical VSL value is adjusted for inflation. Future years are adjusted using projected increase in national real income. These adjustments are consistent with the practice of other large federal agencies. See the Preliminary Regulatory Impact Analysis for the formula and documentation.

contrast, NSC provides a consolidated estimate of the cost of each type of injury—one cost estimate for non-fatal injuries with days lost (NFDL) that includes wage losses, medical expenses, administrative expenses, and employer costs, and a second cost estimate for injuries resulting no days of work lost (NDL) that takes into account medical expenses, administrative expenses and employer costs. (Note that neither estimate includes costs of property damage except to motor vehicles). MSHA believes that the average calculated by the NSC is a reasonable estimate to use for NDL injuries, because it is simpler and more similar to estimates used in past MSHA analysis. Adjusting the 2016 NSC value of \$39,000 (2016 dollars) for inflation using the Medical Consumer Price Index (CPI), this figure yields a 2018 value of \$40,000. By taking the ratio of \$40,000 to a 2018 VSL of \$13.6 million, MSHA calculates a percent-of-VSL value of 0.3 percent (rounded value) for NDLs. For more detailed information, including alternate scenarios, see the monetization discussion in the full PRIA. Table 6 lists the resulting annual values for VSL and nonfatal injuries.

Table 6: Annual Values for VSL and Injuries

Year	VSL (\$ millions)	NFDL (\$ millions)	NDL (\$ millions)
1	\$13.90	\$0.10	\$0.04
2	\$14.16	\$0.11	\$0.04
3	\$14.44	\$0.11	\$0.04
4	\$14.71	\$0.11	\$0.04
5	\$15.00	\$0.11	\$0.04
6	\$15.28	\$0.11	\$0.04
7	\$15.58	\$0.12	\$0.04
8	\$15.88	\$0.12	\$0.04
9	\$16.18	\$0.12	\$0.04
10	\$16.50	\$0.12	\$0.05

Table 7 below displays the monetized benefits from the reductions in fatalities and nonfatal injuries attributable to the proposal. These figures are calculated by multiplying the numbers of prevented fatalities and nonfatal injuries in Table 5 by the VSL estimates of fatal and nonfatal injuries shown in Table 6.

Table 7: Monetized Benefit Estimates - Undiscounted
(Values in Table 5 x Values in Table 6)

Year	Prevented Fatalities (\$ millions)	Prevented Nonfatal Injuries NFDL (\$ millions)	Prevented Nonfatal Injuries NDL (\$ millions)	Annual Total* (\$ millions)
1	6.7	0.4	0.1	7.1
2	68.2	3.5	0.6	72.3
3	69.1	3.3	0.6	73.0
4	70.6	3.0	0.6	74.1
5	72.0	2.8	0.5	75.4
6	73.4	2.6	0.5	76.6
7	74.9	2.7	0.5	78.1
8	76.3	2.4	0.5	79.2
9	77.8	2.2	0.5	80.5
10	79.2	2.0	0.6	81.9
10-Year Total*	668.2	24.9	5.0	698.2

* Totals are based on the detailed data without rounding of the individual table cells. C.

Compliance Costs

As explained above, this proposed rule would require certain mine operators to develop a written safety program in which they would systematically evaluate risks to reduce accidents, injuries, and fatalities. The quantified costs associated with this proposal would be two types -- one related to the development of the written safety program, and the other related to measures taken to enhance safety and minimize risks.

Safety Program Development Cost

MSHA recognizes that mine operations are diverse, with varying mining methods, mining conditions and operations, types of mobile equipment, and mined commodities. Under this proposal, mine operators would develop programs that are unique to their operations and/or build on existing programs.

Program development costs are estimated based on categories of actions to be included in the written program. To develop the safety program, a mine operator would need to implement various procedures and processes that identify hazards and manage

risks. However, many operators already have a number of procedures and processes in place that would meet the requirements of this proposal. Those operators would only have to identify and describe these procedures and processes. Therefore, when MSHA estimates the average time for each type of action it would take a mine operator to develop a written safety program, it is averaging across these variations in the new compliance actions that would be required.

The hourly-wage data used in MSHA’s analysis assumes an average rate for all mining and uses BLS’s 2018 Occupational Employment Survey (OES) mean wage rates adjusted for benefits and wage inflation since completion of the survey. MSHA has also added an overhead cost rate of 1 percent to the wage rates. Labor costs for most employees are estimated using \$65.10 per hour for a supervisor; the only exception is the item identified as clerical assistance, for which the estimated cost is \$31.46 per hour. Costs are estimated based on a projection that 5,027 mine operators would need to develop written programs. Table 8 summarizes these costs associated with a written safety program.

Table 8: Safety Program Development Costs

Major Safety Program Elements*	Mine Task Hours (Annual)	Total Hours (task hours x 5,027 mines)	One-time (\$ millions)	Out-year Annual (\$ millions)
Identifying hazards and manage risks	15	75,405	\$4.9	\$0.0
Evaluating technologies that enhance safety	60	301,620	\$19.5	\$0.0
Summarizing findings and developing written program	20	100,540	\$6.5	\$0.0
Clerical assistance to finalize program (clerical rate \$31.03)	30	150,810	\$4.7	\$0.0

Reevaluating workplace activities due to changes in technology, conditions, processes, materials, or equipment; conducting on-site examinations; identifying hazards, trends, root causes, and taking corrective actions	20	100,540	\$0.0	\$6.5
Annual review and update of the safety program	5	25,135	\$0.0	\$1.6
Total including overhead of 1%			\$35.7	\$8.1

Safety-Enhancement Cost

Under the proposed rule, MSHA would require mine operators to evaluate technologies that enhance safety in the operation of surface mobile equipment. As a result, mine operators would incur costs in implementing safety-enhancing processes and controls.

Because it is difficult to determine the type of controls mine operators would use to eliminate or mitigate a hazard, MSHA's analysis approximates the safety-enhancement costs by estimating the number of pieces of surface mobile equipment covered by this proposal and multiplying by the associated cost for each one.

Based on MSHA experience and data, the agency has estimated the number of pieces of equipment by several mine sizes and by mining process (using the MSIS data for subunits) and cost per piece of equipment for startup as well as outyear maintenance and updates. MSHA estimates that there are approximately 60,000 pieces of mobile equipment used at surface mines and surface areas of underground mines; of this total, 41,994 are used at mines with six or more miners.

The safety-enhancing expenditures would vary widely across mine operations. Some operators would incur lower costs, as they would use less advanced controls such as signs and signals, while other operators would invest in higher-priced controls such as

interlocked seatbelts or collision warning systems. Given this variation, MSHA assumes an average cost of \$500 per piece of surface mobile equipment in the first year, reflecting the cost of both new technology purchases and existing technology repairs and modifications. From the second year on, the analysis assumes an average cost of \$100 per piece of surface mobile equipment, reflecting mostly costs of modification of existing technologies. The analysis assumes little incremental cost for repairs in the second year and beyond, because the repairs are already required by other MSHA standards.

Using these estimates of the average safety-enhancement costs and the number of pieces of equipment used by the covered mines that would be subject to this proposal, MSHA estimates that mine operators would incur safety-enhancement costs of approximately \$21.0 million in the first year and \$4.2 million annually after that. MSHA invites commenters to submit estimates of the types and costs of safety enhancements that would be needed at mining operations under this proposal.

MSHA estimates that there would be no incremental training costs, because this proposed rule requires no new or additional training. Training costs are already accounted for in training required by existing standards in 30 CFR parts 46, 48, and 77, which address mine hazard awareness and safety measures. MSHA invites commenters' views and estimates on training costs.

Table 9 shows the total compliance costs, which are the sum of the written program development costs and safety-enhancement and training costs. Based on the estimates above, the total compliance costs in the first year would be \$56.6 million and \$12.3 million annually in the out-years starting from the second year of implementation. MSHA invites commenters to submit estimates of the types and costs of enhancements at their operations.

Table 9: Compliance Cost Summary

Millions of Dollars
(Undiscounted)

Cost Item	Startup Costs	Annual Out-year Costs
Safety program development (inclusive of overhead costs)	\$35.7	\$8.1
Safety enhancement	\$21.0	\$4.2
Total Costs	\$56.7	\$12.3

D. Net Benefits

MSHA’s 10-year cost and benefit estimates are shown in Table 10. Under MSHA’s proposed rule, mine operators would be required to meet the requirements of the proposed rule 6 months after the effective date of the final rule. MSHA believes that this 6-month period would provide mine operators time to develop and communicate the safety program to employees, evaluate mine operations for hazards, and eliminate or control identified hazards (e.g., engineering controls, work practices, and equipment maintenance). MSHA assumes that by reducing the surface mobile machine fatalities and injuries by 80 percent, full benefits of the proposed rule would be achieved by the second year, with benefits equal to 10 percent of that amount in the first year.

Table 10: Summary of Benefits, Costs, and Net Benefits* (\$ millions)

Year	Undiscounted			Discounted	
	Benefits	Costs	Net Benefits	Net Benefits (3 percent)	Net Benefits (7 percent)
1	\$7.1	\$56.7	-\$49.6	-\$48.2	-\$46.4
2	\$72.3	\$12.3	\$60.0	\$56.6	\$52.4
3	\$73.0	\$12.3	\$60.7	\$55.5	\$49.5
4	\$74.1	\$12.3	\$61.8	\$54.9	\$47.1
5	\$75.4	\$12.3	\$63.1	\$54.4	\$45.0
6	\$76.6	\$12.3	\$64.3	\$53.9	\$42.8
7	\$78.1	\$12.3	\$65.8	\$53.5	\$41.0
8	\$79.2	\$12.3	\$66.9	\$52.8	\$38.9
9	\$80.5	\$12.3	\$68.2	\$52.3	\$37.1

10	\$81.9	\$12.3	\$69.6	\$51.8	\$35.4
Total	\$698.2	\$167.4	\$530.8	\$437.5	\$343.0
Annualized	\$69.8	\$16.7	\$53.1	\$49.8	\$45.6

*Values in millions. Full precision of numbers calculated and summed, but independent rounding for display purposes reflects subtotals but not the underlying calculations.

Break-Even Point Analysis

OMB Circular A-4 recommends use of a break-even or threshold analysis when there are qualitative benefits or issues of uncertainty related to the cost and benefit estimates. As discussed above, MSHA's estimates of the benefits of the rule are based on the projected reduction in the number of fatalities and injuries. The success of the proposed rule in reducing fatal and nonfatal injuries can be considered in terms of the resulting monetized benefit. A break-even point is when net benefits (monetized benefits minus costs) equal zero. According to the break-even calculations for this proposal, even if the fatalities and injuries are not reduced as forecasted, the reduction of fatal and nonfatal injuries would have a positive net benefit as long as those injuries are reduced by more than 27.1 percent; at 27.1 percent, the net benefits at a 7 percent discount rate would equal zero.

E. Request for Comments

Please provide data or information that would be useful to MSHA as the Agency evaluates the costs and benefits of this proposal. MSHA recognizes that mine operations are diverse with varying mining methods, mining conditions and operations, types of mobile equipment, mined commodities, and mine sizes. MSHA seeks data and information that would allow the Agency to develop estimates that might better reflect these differing conditions and further evaluate the economic feasibility of this proposal. MSHA requests comments on innovative technologies and/or new and developing technologies that could enhance the benefits of the proposal.

IV. Feasibility

A. Technological Feasibility

MSHA concludes that the proposal would be technologically feasible because it would require mine operators to develop and implement written safety programs based on an assessment of risk in their mines and use existing technology or methods to enhance safety. Therefore, there are no technological issues raised by the proposal.

B. Economic Feasibility

MSHA has traditionally used a revenue screening test – i.e., whether the yearly impacts of a regulation are less than one percent of revenues -- to establish presumptively that the regulation is economically feasible for the mining community. MSHA projects that the proposal would have an annualized cost of \$17 million (at a 7 percent discount rate over 10 years), while the mining industry has estimated annual revenues of \$109.4 billion. The cost of the proposal would be much less than 1 percent of revenues. Therefore, MSHA concludes that the proposed rule would be economically feasible for the mining industry.

V. Regulatory Flexibility Analysis (RFA) and Small Business Regulatory Enforcement Fairness Act (SBREFA) and Executive Order 13272: Proper Consideration of Small Entities in Agency Rulemaking

MSHA has reviewed the proposed rule to assess and take appropriate account of its potential impact on small businesses, small governmental jurisdictions, and small organizations. Pursuant to the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), MSHA analyzed the impact of the proposed rule on small entities. Based on that analysis, MSHA believes that this proposed rule would not have a significant economic impact on a substantial number of small entities. The Agency, therefore, is not required to develop an initial regulatory flexibility analysis. The factual basis for this proposed certification is presented below.

A. Definition of a Small Mine

Under the RFA, in analyzing the impact of a rule on small entities, MSHA must use the Small Business Administration (SBA)'s definition for a small entity, or after consultation with the SBA Office of Advocacy, establish an alternative definition for the mining industry by publishing that definition in the *Federal Register* for notice and comment.

The SBA uses North American Industry Classification System (NAICS) codes, generally at the 6-digit NAICS level, to set thresholds for small business sizes for each industry. See Table 11 for SBA thresholds for each relevant NAICS code. The SBA size standard tables and methodology are available at <https://www.sba.gov/contracting/getting-started-contractor/make-sure-you-meet-sba-size-standards/summary-size-standards-industry-sector>.

B. Factual Basis for Certification

The SBA guidance recommends, as a first step, a threshold analysis. MSHA evaluates the impacts on small entities by comparing the estimated compliance costs of a rule for small entities in the sector affected by the rule to the estimated revenues for the affected sector. As the threshold analysis is developed, MSHA considers the data availability as well as the degree of representativeness if the data is disaggregated. When estimated compliance costs are less than 1 percent of the estimated industry revenues, it is generally appropriate to conclude that there is no significant economic impact on a substantial number of small entities. MSHA examines data for the NAICS codes that have much higher impact ratios (cost/revenue) than others to ensure that the first level screening is representative. When estimated ratios may not be representative or when compliance costs exceed one percent of revenues, MSHA investigates whether further analysis is required.

For this analysis, MSHA evaluated a number of data sources related to the

number of firms, employment, and revenue. MSHA concluded that the most useful data for firms and employment was the MNM mine data from MSIS, which is publicly available at <https://www.msha.gov/data-reports/data-sources-calculators>. Using the SBA criteria (see Table 11) and MSIS total average annual mine employment data as provided by mine operators, MSHA identified that 10,278 out of 12,281 mines and facilities are considered “small” and have usable data. MSHA identified 533 other small mines that were not included in this analysis, because some had incomplete data, another had few production hours for the year (intermittent mines), and others stopped production in 2018.) Of those small mines and facilities, slightly more than one-third, 35 percent (3,557/10,278 small), would be required to comply with the provisions of the proposal because they employ six or more miners. Costs from the Compliance Costs section above were distributed using the SBA small and large sizes using the same methodology discussed in that section. The 65 percent of small mine operators that do not have to comply will have no cost.⁵

MSHA estimates mine revenue as it did in the past. Since MNM mines do not report production, MSHA used U.S. Geological Commodity reports (USGS, 2019) to obtain national MNM revenue numbers for 2018. MSHA allocated the NAICS code revenue for MNM mines on a dollar per hour basis. MSHA uses the mine operator-reported coal production and Energy Information Administration price per ton for anthracite, lignite, and bituminous coal for small mines.⁶

MSHA considered the issue of disaggregation of summary data and displaying representative data for mines with only five or fewer miners. The revenue per hour for MNM mines and per ton for coal is representative for the total as most mines meet the SBA’s small criteria. However, MSHA believes it is unlikely to be representative for the

⁵ Those 533 mines excluded from this analysis are mines with 1 to 5 miners, which are not subject to the proposed rule.

⁶ https://www.eia.gov/coal/annual/archive/0584_2018.pdf, p. XVII

smallest mines. MSHA requests comments and data that would assist MSHA in estimating representative revenues for the categories of six or more, and five or fewer, miners.

Table 11 shows the estimated revenues, costs, SBA size standards (Feb. 2019), and the summary level screening test results for the total small mine revenue for each 6-digit NAICS code. The summary level data is consistent with evaluating the impact on a mine-by-mine basis without providing detail on all mines. The data allows each operator to use the Table 11 data to compare the revenue per mine and cost per mine to their operating data. However, the revenue for incomplete data was less than 1 percent of total revenues. It is therefore small enough not to affect MSHA's decision to propose to certify that there would be no significant economic impact on a substantial number of small entities.

Table 11: Summary of Small Business Screening Data
(Revenues and Costs in \$ millions)

NAICS Code	NAICS Description	Small Standard (max. no. of employees)	No. Small Mines	Estimated Revenues All Small Mines	One Percent of Revenues	Costs to All Small Mines	Cost Exceeds One Percent
212111	Bituminous Coal and Lignite Surface Mining	1,250	611	\$9,325	\$93.25	\$4.48	No
212112	Bituminous Coal Underground Mining	1,500	148	\$4,386	\$43.86	\$0.33	No
212113	Anthracite Mining	250	117	\$189	\$1.89	\$0.38	No
212210	Iron Ore Mining	750	21	\$999	\$9.99	\$0.16	No
212221	Gold Ore Mining	1,500	122	\$2,332	\$23.32	\$0.63	No
212222	Silver Ore Mining	250	5	\$99	\$0.99	\$0.01	No
212230	Copper, Nickel, Lead, and Zinc Mining	750	27	\$2,780	\$27.80	\$0.31	No

NAICS Code	NAICS Description	Small Standard (max. no. of employees)	No. Small Mines	Estimated Revenues All Small Mines	One Percent of Revenues	Costs to All Small Mines	Cost Exceeds One Percent
212291	Uranium-Radium-Vanadium Ore Mining	250	4	\$0	\$0.00	\$0.01	Yes
212299	All Other Metal Ore Mining	750	17	\$419	\$4.19	\$0.13	No
212311	Dimension Stone Mining and Quarrying	500	772	\$438	\$4.38	\$3.15	No
212312	Crushed and Broken Limestone Mining and Quarrying	750	1,318	\$6,459	\$64.59	\$7.64	No
212313	Crushed and Broken Granite Mining and Quarrying	750	138	\$1,135	\$11.35	\$0.97	No
212319	Other Crushed and Broken Stone Mining and Quarrying	500	874	\$1,732	\$17.32	\$3.52	No
212321	Construction Sand and Gravel Mining	500	5,326	\$6,796	\$67.96	\$12.77	No
212322	Industrial Sand Mining	500	249	\$4,231	\$42.31	\$1.34	No
212324	Kaolin and Ball Clay Mining	750	7	\$620	\$6.20	\$0.05	No
212325	Clay and Ceramic and Refractory Minerals Mining	500	198	\$766	\$7.66	\$0.78	No
212391	Potash, Soda, and Borate Mineral Mining	750	9	\$909	\$9.09	\$0.05	No
212392	Phosphate Rock Mining	1,000	8	\$969	\$9.69	\$0.16	No

NAICS Code	NAICS Description	Small Standard (max. no. of employees)	No. Small Mines	Estimated Revenues All Small Mines	One Percent of Revenues	Costs to All Small Mines	Cost Exceeds One Percent
212393	Other Chemical and Fertilizer Mineral Mining	500	44	\$1,541	\$15.41	\$0.28	No
212399	All Other Nonmetallic Mineral Mining	500	181	\$957	\$9.57	\$0.89	No
311942	Spice and Extract Manufacturing	500	3	\$920	\$9.20	\$0.02	No
327310	Cement Manufacturing	1,000	40	\$4,501	\$45.01	\$0.43	No
327410	Lime Manufacturing	750	31	\$1,350	\$13.50	\$0.24	No
331313	Alumina Refining and Primary Aluminum Production	1,000	6	\$3	\$0.03	\$0.04	Yes
Grand Total			10,278	\$53,856	\$538.56	\$38.77	No

Note: Total number of small mines includes two mines that were not reported as abandoned but lacked hours and sufficient information to assign revenues. Without miner hours, costs and revenues related to the NAICS codes above are most likely zero.

As Table 11 shows, the total estimated cost to small mines, \$38.77 million, is far less than 1 percent of the total revenues of those mines, which comes to \$538.56 million. Two NAICS codes, 331313 Alumina Refining and Primary Aluminum Production and 212291 Uranium Radium Vanadium Ore Mining, require further analysis, because estimated costs for those codes exceed MSHA's 1-percent threshold for additional analysis. The Census Bureau's Statistics of U.S. Businesses and 2017 Economic Census data provides helpful information for additional analysis of NAICS code 331313. The Census Bureau reports that all data for the 212291 NAICS has been withheld due to the very limited number of mines. The six mines and plants regulated by MSHA with

NAICS code 331313 are only a portion of the larger group of all firms with NAICS code 331313. The preliminary data from the Economic Census as shown in the Bureau's data does not provide enough detail to separate small firms between 500 and 1,000 employees from their total for 500 and more employees or to isolate mines from all firms with NAICS code 331313.⁷

For NAICS code 331313, MSHA's estimate for the total costs for the small firms that it regulates within the code is \$38,500. The Economic Census reports that the smallest firms for this NAICS have preliminary receipts of \$9.3 million. The impact for the smallest firms would be only 0.4 percent ($\$38,500/\$9,300,000$). The overall percentage impact to small firms goes down as the revenues increase for the rest of the firms up to the SBA threshold of 1,000 employees. Although the Economic Census numbers are for 2017, information available online provided by a private firm SICCODE.com (<https://siccode.com/naics-code/331313/alumina-refining-primary-aluminum-production>), suggests that the number of firms (26) and total revenues (\$3 billion) are down slightly for 2018 but not enough to alter MSHA's conclusion that there is no significant impact for small firms with this NAICS code.

For Uranium and Vanadium, the mines were rarely in production in 2018. Several web sources suggest that as uranium approaches or maintains zero production, the Vanadium mines have the potential for growth for use in steel and battery production; thus, non-producing mines are maintained for this possibility. Because no recent data are available regarding the remaining establishments, their total employment, their revenues or costs, it is not possible to compute the impact beyond the total cost for the NAICS code 212291 which is slightly more than \$14,000. Considering that the firms owning the limited number of mines are maintaining the mines for future possibilities, it is unlikely

⁷ See https://www2.census.gov/programs-surveys/susb/tables/2017/us_6digitnaics_2017.xlsx for the available data.

that this low cost would impact their decision whether to close. MSHA invites comments and data that might improve this conclusion and analysis.

VI. Paperwork Reduction Act of 1995

A. Summary

This proposal would create new information collection burdens for the mining community. The new burden applies only to mine operators with six or more miners. As stated in the proposal, mine operators would have wide latitude to develop and implement a written safety program. Mine operators could also consult or use examples of model written safety programs available on MSHA's website. MSHA recognizes that this proposal could transfer burden from (or add burden to) existing information collections such as those related to training or equipment maintenance. However, MSHA is requesting a new OMB Control Number until the Agency determines how the burden under this proposal would affect MSHA's existing information collections. Using the data from the E.O. 12866 analysis, MSHA estimates that 5,027 respondents (mine operators employing six or more miners) would incur an average annual collection burden of 5,027 responses, 100,540 hours, with an annual burden cost estimate of \$4.8 million. The MSHA enforcement staff would not review all written programs, but any program review would be part of routine mine inspections and therefore there is no new federal cost. Table 12 shows the anticipated first three years of collection burden.

Table 12: Recordkeeping Burden of Proposed Rule

Year	Item Description	Hours per Task	Respondents (Mines)	Burden Hours	Hourly Rate (with Benefits)	Hour Burden Cost (\$ Millions)
1	Development of a written safety program	20	5,027	100,540	\$ 65.10	\$ 6.5
1	Clerical assistance to finalize written program	30	5,027	150,810	\$ 31.46	\$ 4.7
2	Annual review, plan revision, and update due to changes in workplace activities	5	5,027	25,135	\$ 65.10	\$ 1.6
3	Annual review, plan revision, and update due to changes in workplace activities	5	5,027	25,135	\$ 65.10	\$ 1.6
3-Year Total		60	5,027	301,620	NA	\$ 14.4
Annual Average		20	5,027	100,540	NA	\$ 4.8

B. Procedural Details

The information collection package for this proposal has been submitted to OMB for review under 44 U.S.C. 3504, paragraph (c) of the Paperwork Reduction Act of 1995, as amended. Comments on the information collection requirements should be sent to both OMB and MSHA. Addresses for both offices can be found in the ADDRESSES section of this preamble.

MSHA is soliciting comments concerning the proposed information collection related to written safety programs. MSHA is particularly interested in comments that address the following:

- Evaluate whether the collection of information is necessary for the proper performance of the functions of the Agency, including whether the information has practical utility;
- Evaluate the accuracy of MSHA's estimate of the burden of the collection of information, including the validity of the methodology and assumptions used;
- Suggest methods to enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

VII. Regulatory Alternative

MSHA considered requiring all mines, regardless of size, to develop and implement a written safety program for surface mobile equipment used at surface mines and surface areas of underground mines. Between 2013 and 2018, mines with five or fewer miners experienced 10 fatalities related to surface mobile equipment, whereas mines with six or more miners experienced 109 related fatalities during the same time period.

If those mines with five or fewer miners were required to develop and implement a written safety program, they would incur substantial costs. MSHA estimates that there are 7,254 mines with five or fewer miners. The preliminary projected costs for this group of mines would add up to approximately undiscounted cost of \$170 million over a ten-year period. These mines would incur a start up cost of \$ 64.6 million in the first year and an annual cost of \$11.7 over the subsequent 9 years.

Based on the Agency's experience, MSHA concluded that a mine operator

with five or fewer miners would generally have a limited inventory of surface mobile equipment. These operators would also have less complex mining operations, with fewer mobile equipment hazards that would necessitate a written safety program. Also, at these small mines, safety can be communicated more effectively through face to face communication rather than in writing. Taken together, MSHA has determined that mine operators employing five or fewer miners would not be required to have a written safety program, although the Agency would assist these mine operators with promoting a safety culture in a variety of ways. Fuller discussions can be found in the Preliminary Regulatory Impact Analysis in the proposed rule docket at <https://www.regulations.gov/docket?D=MSHA-2018-0016> and are posted on MSHA's web site at <https://www.msha.gov>. MSHA also solicits comments on the Agency's determination.

VIII. Other Regulatory Considerations

A. The Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (Act) (2 U.S.C. 1501 *et seq.*) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by state, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million (adjusted annually for inflation) or more in any one year. This proposed rule would not result in such an expenditure. Accordingly, the Unfunded Mandates Reform Act requires no further Agency action or analysis.

B. The Treasury and General Government Appropriations Act of 1999: Assessment of Federal Regulations and Policies on Families

Section 654 of the Treasury and General Government Appropriations Act of 1999 (5 U.S.C. 601 note) requires agencies to assess the impact of Agency action on family

well-being. MSHA has determined that the proposal would not have an effect on family stability or safety, marital commitment, parental rights and authority, or income or poverty of families and children. Accordingly, MSHA certifies that this proposed rule would not impact family well-being.

C. Executive Order 12630: Government Actions and Interference with Constitutionally Protected Property Rights

Section 5 of E.O. 12630 requires federal agencies to “identify the takings implications of final regulatory actions” MSHA has determined that the proposal would not include a regulatory or policy action with takings implications. Accordingly, E.O. 12630 requires no further Agency action or analysis.

D. Executive Order 12988: Civil Justice Reform

Section 3 of E.O. 12988 contains requirements for federal agencies promulgating new regulations or reviewing existing regulations to minimize litigation by eliminating drafting errors and ambiguity, providing a clear legal standard for affected conduct rather than a general standard, promoting simplification, and reducing burden. MSHA has reviewed the proposal and has determined that it would meet the applicable standards provided in E.O. 12988 to minimize litigation and undue burden on the federal court system.

E. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

MSHA has determined that the proposal would not have an adverse impact on children. Accordingly, E.O. 13045 requires no further Agency action or analysis.

F. Executive Order 13132: Federalism

MSHA has determined that the proposal would not have federalism implications because it would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and

responsibilities among the various levels of government. Accordingly, E.O. 13132 requires no further Agency action or analysis.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

MSHA has determined that the proposal would not have tribal implications because it would not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

Accordingly, E.O. 13175 requires no further Agency action or analysis.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

E.O. 13211 requires agencies to publish a statement of energy effects when a rule has a significant energy action that adversely affects energy supply, distribution, or use. MSHA reviewed the proposal for its energy effects on the production of coal and uranium mining. The proposal would result in annualized costs of approximately \$16.7 million to covered surface mines and surface areas of underground mines. The Energy Information Administration's annual uranium report for 2018 shows, "Owners and operators of U.S. civilian nuclear power reactors (civilian owner/operators, or COOs) purchased a total of 43 million pounds U₃O_{8e} (equivalent) of deliveries from U.S. suppliers and foreign suppliers during 2017, at a weighted-average price of \$38.80 per pound," which is approximately \$1.7 billion. Given that domestic nuclear plants represent only 19.3 percent of the U.S. electrical production and using average annual costs of the entire proposal, the impact to the domestic energy production could not reach 1 percent. Coal mining industry has an annual revenue of \$27.2 billion (See Table 2). Under this proposal, annual costs impacting the total coal production of 756 million tons would not affect national energy production costs by more than 1 percent or reduce

annual coal production by 5 million tons. MSHA has concluded that it is not a significant energy action because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Accordingly, under this analysis, no further Agency action or analysis is required.

IX. References

American Society of Safety Professionals (ASSP), Occupational Health and Safety Management Systems, ANSI/ASSP Z10-2012, (R2017).

International Standards Organization (ISO), Occupational Health and Safety Management Systems – Requirements With Guidance for Use (ISO 45001:2018).

Occupational Health and Safety Assessment Series (OHSAS) 18001.

List of Subjects in 30 CFR Parts 56 and 57

Metal and nonmetal mining, Mine safety and health, Surface mining, Mobile equipment safety program, Reporting and recordkeeping requirements, and Underground mining.

List of Subjects in 30 CFR Part 77

Coal mining, Mine safety and health, Surface mining, Mobile equipment safety program, Reporting and recordkeeping requirements, and Underground mining.

Patricia W. Silvey

Deputy Assistant Secretary of Labor for
Mine Safety and Health.

For the reasons set out in the preamble, and under the authority of the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New

Emergency Response Act of 2006, MSHA is proposing to amend chapter I of title 30 of the Code of Federal Regulations as follows:

PART 56 – SAFETY AND HEALTH STANDARDS – SURFACE METAL AND NONMETAL MINES

1. The authority citation for part 56 continues to read as follows:

Authority: 30 U.S.C. 811.

2. Add subpart T to Part 56 to read as follows:

Subpart T - SAFETY PROGRAM FOR SURFACE MOBILE EQUIPMENT

Sec.

56.23000 Purpose and scope.

56.23001 Definitions.

56.23002 Written safety program.

56.23003 Requirements for written safety program.

56.23004 Record and inspection.

§ 56.23000 Purpose and scope.

This subpart requires mine operators employing six or more miners to develop, implement, and update a written safety program for surface mobile equipment to reduce the number and rates of accidents, injuries, and fatalities. This subpart applies to surface mobile equipment at surface metal and nonmetal mines. The purpose of this safety program is to promote and support a positive safety culture and improve miners' safety at the mine.

§ 56.23001 Definitions.

The following definitions apply in this subpart—

Responsible person means a person with authority and responsibility to evaluate and update a written safety program for surface mobile equipment.

Surface mobile equipment means wheeled, skid-mounted, track-mounted, or rail-mounted equipment capable of moving or being moved, and any powered equipment that transports people, equipment, or materials, excluding belt conveyors, at surface metal and nonmetal mines.

§ 56.23002 Written safety program.

(a) Each operator subject to this subpart shall develop and implement a written safety program for surface mobile equipment that contains the elements in this subpart, no later than [DATE 6 months after the effective date of the final rule] .

(b) Each operator subject to this subpart shall designate a responsible person to evaluate and update the written safety program, no later than [DATE 6 months after the effective date of the final rule].

§ 56.23003 Requirements for written safety program.

(a) The mine operator shall develop and implement a written safety program that includes actions the operator would take to:

(1) identify and analyze hazards and reduce the resulting risks related to the movement and the operation of surface mobile equipment;

(2) develop and maintain procedures and schedules for routine maintenance and non-routine repairs for surface mobile equipment;

(3) identify currently available and newly emerging feasible technologies that can enhance safety at the mine and evaluate whether to adopt them; and

(4) train miners and other persons at the mine necessary to perform work to identify and address or avoid hazards related to surface mobile equipment.

(b) The responsible person shall evaluate and update the written safety program annually or as mining conditions or practices change, as accidents or injuries occur, or as surface mobile equipment changes or modifications are made.

§ 56.23004 Record and inspection.

The mine operator shall make the written safety program available for inspection by authorized representatives of the Secretary, miners, and representatives of miners, and provide a copy, upon request.

PART 57 – SAFETY AND HEALTH STANDARDS – UNDERGROUND METAL AND NONMETAL MINES

3. The authority citation for Part 57 continues to read as follows:

Authority: 30 U.S.C. 811.

4. Add subpart U to part 57 to read as follows:

Subpart U – SAFETY PROGRAM FOR SURFACE MOBILE EQUIPMENT

Sec.

57.23000 Purpose and scope.

57.23001 Definitions.

57.23002 Written safety program.

57.23003 Requirements for written safety program.

57.23004 Record and inspection.

§ 57.23000 Purpose and scope.

This subpart requires mine operators employing six or more miners to develop, implement, and update a written safety program for surface mobile equipment to reduce the number and rates of accidents, injuries, and fatalities. This subpart applies to surface mobile equipment at surface areas of underground metal and nonmetal mines. The purpose of this safety program is to promote and support a positive safety culture and improve miners' safety at the mine.

§ 57.23001 Definitions.

The following definitions apply in this subpart—

Responsible person means a person with authority and responsibility to evaluate and update a written safety program for surface mobile equipment.

Surface mobile equipment means wheeled, skid-mounted, track-mounted, or rail-mounted equipment capable of moving or being moved, and any powered equipment that transports people, equipment, or materials, excluding belt conveyors, at surface areas of underground metal and nonmetal mines.

§ 57.23002 Written safety program.

(a) Each operator subject to this subpart shall develop and implement a written safety program for surface mobile equipment that contains the elements in this subpart, no later than [DATE 6 months after the effective date of the final rule].

(b) Each operator subject to this subpart shall designate a responsible person to evaluate and update the written safety program, no later than [DATE 6 months after the effective date of the final rule].

§ 57.23003 Requirements for written safety program.

(a) The mine operator shall develop and implement a written safety program that includes actions the operator would take to:

(1) identify and analyze hazards and reduce the resulting risks related to the movement and the operation of surface mobile equipment;

(2) develop and maintain procedures and schedules for routine maintenance and non-routine repairs for surface mobile equipment;

(3) identify currently available and newly emerging feasible technologies that can enhance safety at the mine and evaluate whether to adopt them; and

(4) train miners and other persons at the mine necessary to perform work to identify and address or avoid hazards related to surface mobile equipment.

(b) The responsible person shall evaluate and update the written safety program annually or as mining conditions or practices change, as accidents or injuries occur, or as surface mobile equipment changes or modifications are made.

§ 57.23004 Record and inspection.

The mine operator shall make the written safety program available for inspection by authorized representatives of the Secretary, miners, and representatives of miners, and provide a copy, upon request.

**PART 77 – MANDATORY SAFETY STANDARDS, SURFACE COAL MINES
AND SURFACE WORK AREAS OF UNDERGROUND COAL MINES**

5. The authority citation for part 77 continues to read as follows:

Authority: 30 U.S.C. 811.

6. Add subpart V to part 77 to read as follows:

Subpart V – SAFETY PROGRAM FOR SURFACE MOBILE EQUIPMENT

Sec.

77.2100 Purpose and scope.

77.2101 Definitions.

77.2102 Written safety program.

77.2103 Requirements for written safety program.

77.2104 Record and inspection.

§ 77.2100 Purpose and scope.

This subpart requires mine operators employing six or more miners to develop, implement, and update a written safety program for surface mobile equipment to reduce the number and rates of accidents, injuries, and fatalities. This subpart applies to surface mobile equipment at surface coal mines and surface work areas of underground coal

mines. The purpose of this safety program is to promote and support a positive safety culture and improve miners' safety at the mine.

§ 77.2101 Definitions.

The following definitions apply in this subpart—

Responsible person means a person with authority and responsibility to evaluate and update a written safety program for surface mobile equipment.

Surface mobile equipment means wheeled, skid-mounted, track-mounted, or rail-mounted equipment capable of moving or being moved, and any powered equipment that transports people, equipment, or materials, excluding belt conveyors, at surface coal mines and surface work areas of underground coal mines.

§ 77.2102 Written safety program.

(a) Each operator subject to this subpart shall develop and implement a written safety program for surface mobile equipment that contains the elements in this subpart, no later than [DATE 6 months after effective date of the final rule].

(b) Each operator subject to this subpart shall designate a responsible person to evaluate and update the written safety program, no later than [DATE 6 months after effective date of the final rule] .

§ 77.2103 Requirements for written safety program.

(a) The mine operator shall develop and implement a written safety program that includes actions the operator would take to:

(1) identify and analyze hazards and reduce the resulting risks related to the movement and the operation of surface mobile equipment;

(2) develop and maintain procedures and schedules for routine maintenance and non-routine repairs for surface mobile equipment;

(3) identify currently available and newly emerging feasible technologies that can enhance safety at the mine and evaluate whether to adopt them; and

(4) train miners and other persons at the mine necessary to perform work to identify and address or avoid hazards related to surface mobile equipment.

(b) The responsible person shall evaluate and update the written safety program annually or as mining conditions or practices change, as accidents or injuries occur, or as equipment changes or modifications are made.

§ 77.2104 Record and inspection.

The mine operator shall make the written safety program available for inspection by authorized representatives of the Secretary, miners, and representatives of miners, and provide a copy, upon request.

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