



Michigan Mine Safety & Health Training Program

Surface Mine
Supervisor
Safety & Health Manual

SURFACE MINE SUPERVISOR SAFETY AND HEALTH MANUAL

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Purpose of this Manual

The purpose of this manual is to provide supervisors with information and sources of information that will assist them in meeting MSHA requirements and in promoting a safe and healthy workplace.

DISCLAIMER

This manual is an effort to condense a great deal of information into a form that mine supervisors can use for quick reference. While we have attempted to be as accurate as possible, we make no specific claims as to the accuracy of these materials or to their suitability for any specific purpose. Where federal regulations for the mining industry are concerned, it is always prudent to confirm them by referring to the most recent edition of Title 30 of the Code of Federal Regulations. We recognize that keeping this manual complete, accurate and up-to-date will be an ongoing task and we welcome input from others who discover errors, the need for changes, or have other suggestions as to how the manual can become more useful.

THE SUPERVISOR'S ROLE IN SAFETY

1. The attitude of Managers and Supervisors is a principle factor in workplace safety and health.
2. A supervisor's actions affect worker attitudes towards safety. A supervisor must encourage safe behavior and correct 'at-risk' behavior as well as set a proper example.
3. A supervisor's words must be carefully chosen to communicate that the safety and health of the company's employees is truly a priority. Supervisors must encourage employees to be safe and must take immediate action when employees point out unsafe conditions. A careless statement or act can destroy a supervisor-employee trust relationship that has been built over many months or years.
4. Barriers to safe worker behavior will be either created or overcome by the supervisor's actions and words.

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1. Supervisor Liability and Responsibility under the Mine Act

This chapter will describe the penalties that can be imposed upon mining supervisors as set forth in the Federal Mine Safety and Health Act of 1977. It will also describe the tools that MSHA uses to enforce its regulations and how mine operators can contest citations.

Operator & Supervisor Liability under MSHA

This section is a paraphrased portion of the Federal Mine Safety and Health Act dealing with penalties to supervisors and their companies for regulatory violations. A few terms are defined first for clarity.

Some Definitions

- Many MSHA regulations refer to "**the secretary and/or his/her representative**". This phrase refers to the Assistant Secretary of Labor for Mine Safety and Health. "His/her representative" is anyone with authority to carry out the secretary's directives. An MSHA inspector is an example of a representative.
- An "**agent of the company**" means any person charged with responsibility for the operation of all or a part of a coal or other mine. It also means any person charged with the supervision of the miners in a coal or other mine - any one that directs the workforce (including hourly employees who direct the workforce). Supervisors obviously meet the definition of an 'agent' of the company.
- "**Knowingly**" means knowing or having reason to know. A person has reason to know when the person has such information as would lead a person exercising reasonable care to acquire knowledge of the fact in question or to infer its existence. Example: If an equipment operator is operating equipment with safety defects, and the mine operator has demonstrated no system for reporting and correcting defects, MSHA can determine that the mine operator was knowingly allowing the operation of the equipment with safety defects because the mine operator should have known. The phrase "a person exercising reasonable care" can be taken to mean that the person is making an effort to comply with the regulations. Thus a supervisor or other person directing the work can be held civilly or criminally liable (pay a personal fine or receive jail time) for knowingly violating regulations.

- **"Willfully"** means intentionally disobeying the standard or recklessly disregarding its requirements. 'Reckless disregard' means deliberate indifference toward the requirements of a mandatory safety standard, which the defendant should have known and had reason to know at the time of the violation. Supervisors can be held civilly and criminally liable for willfully violating regulations.
- **"Unwarrantable Failure"** is a term applied to an S&S citation (see below) where a mine, its operator or one of its agents "knowingly" or "willfully" participated in the violation being cited. (See above terms.)

Mine Safety & Health Enforcement - MSHA's Action Tools

The U.S. Labor Department's Mine Safety and Health Administration (MSHA) has a number of important enforcement tools. These include various enforcement actions that MSHA can use to ensure the dangerous conditions or practices are corrected.

Civil Penalties Imposed for Violations

Civil penalties are assessed against the mine operator. However, agents of corporate operators may individually be penalized for violations they knowingly caused or permitted. Individual miners can be fined for violating smoking prohibitions.

Under the Federal Mine Safety and Health Act of 1977, MSHA inspectors must issue a citation for each violation of a health or safety standard they encounter. Each citation entails a civil penalty. These fines may range up to \$55,000 per violation. MSHA's Office of Assessments sets the penalties. Most non-serious violations that are corrected promptly are assessed a flat \$55 penalty, except that mining operations found to have an excessive history of safety and health violations are not eligible for the \$55 single penalty. Most other violations are assessed according to a formula that considers six factors:

- 1) History of previous violations.
- 2) Size of the operator's business.
- 3) Any negligence by the operator.
- 4) Gravity of the violation.
- 5) The operator's good faith in trying to correct the violation promptly.
- 6) Effect of the penalty on the operator's ability to stay in business.

These factors are determined from the inspector's findings, MSHA records, and information supplied by the operator. In some cases (often involving fatalities or serious injuries), the formula would not yield an appropriate penalty. In these cases, MSHA may waive the formula and make a special assessment.

"S & S"

Several provisions of the act concern "significant and substantial" violations. A significant and substantial (or "S & S") violation is one that is reasonably likely to result in a reasonably serious injury or illness. In writing each citation, the MSHA inspector determines whether the violation is S & S or not. S & S violations are not eligible for the flat \$55 penalty.

Orders of Withdrawal

In several situations, the law provides that MSHA may order miners withdrawn from a mine or part of a mine. This is one of the most powerful tools that an inspector has at his disposal. Some of the most frequent reasons for orders of withdrawal are:

1. Imminent danger to the miners
2. Failure to correct a violation within the time allowed
3. Securing an area during an accident investigation.

Unwarrantable Failures

If an MSHA inspector finds an S&S violation resulting from an "unwarrantable failure" of the operator (or an agent of the operator) to comply with a standard, the inspector incorporates that finding in the citation. (Unwarrantable failure is a 'knowing disregard or having reason to know about a violation'.) If another violation, also due to unwarrantable failure, is found within 90 days, MSHA issues a withdrawal order until it is corrected. Thereafter, any violation similar to the one that led to this withdrawal order will trigger another withdrawal order. This applies until an inspection of the mine discloses no similar violations. The finding of unwarrantable failure may trigger additional actions such as special investigations and civil or criminal charges.

Pattern of Violations

If MSHA determines that a mine has a "pattern" of S&S violations, the law and regulations provide that the agency shall notify the operator, who is then given an opportunity to improve compliance. Thereafter, if a mine is notified that it has a pattern of violations, any S&S violation found within 90 days would automatically trigger a withdrawal order. Each additional S&S violation would mean another withdrawal order until the mine had a "clean" inspection with no S&S violations.

Discrimination Protection

The law prohibits discrimination against miners, their representatives, or job applicants for exercising their safety and health rights. MSHA investigates complaints of discrimination. If evidence of discrimination is found, the Labor Department can take the miner's case before the independent Federal Mine Safety and Health Review Commission. In nearly all of these cases miners who have been fired can get their job back temporarily while a discrimination complaint is being adjudicated.

Criminal Penalties

The Mine Act provides for criminal sanctions against mine operators and agents who knowingly and willfully violate safety and health standards. MSHA initially investigates possible willful violations; if evidence of such violation is found, the agency turns its findings over to the Justice Department for prosecution.

Appeals (See 'Conferencing Citations' in this chapter.)

For more complete information about MSHA, contact MSHA's Office of Information and Public Affairs, (703) 235-1452, or your local MSHA office. (Check your local phone book, under "U.S.

Government, Department of Labor.") Or you can get information from MSHA's Internet site at: www.msha.gov .

The Mine Act - Sections of Interest to Supervisors

Section 103 - Investigations, Inspections and Reports

1. The mine act requires that mine operators investigate accidents to determine the causes and means of prevention with records made available to MSHA.
2. The mine act allows that a representative of the operator and one representative of the miners accompany a federal inspector during an inspection and to participate in pre- and post-inspection conferences held at the mine without loss of pay during the period of participation in the inspection.
3. Any miner or representative of the miners can contact MSHA and request an immediate inspection. MSHA is required to make an inspection as soon as possible. The miner's names are kept confidential.

Section 104 - Citations and orders.

1. A withdrawal order can result if a citation is not abated in the time allotted.
2. Unwarrantable failure to comply with standards and patterns of violations can also result in withdrawal orders.
3. This section authorizes the withdrawal of miners who have not received the required safety and health training and that the miners be paid while the violation is being abated.

Section 105 - Procedures for Enforcement.

This section deals with the procedures MSHA must follow when carrying out their regulatory duties.

Section 106 - Judicial Review.

Any person adversely affected by a decision of the Federal Mine Safety and Health Review Commission, may obtain a review of the decision by the US Court of Appeals for your region.

Section 107 - Procedures to Counteract Dangerous Conditions.

If, when inspecting a mine, an MSHA inspector discovers an imminent danger, he can issue a withdrawal order.

Section 108 - Injunctions.

This section allows MSHA to initiate civil actions, such as temporary or permanent injunctions (i.e. a restraining order) against a mine operator, or an agent of the company, if the person or mine operator violates a provision of the Act.

Section 109 - Posting of Orders and Decisions.

A copy of any order, citation, notice or decision required by the Mine Act to be given to a mine operator shall be delivered to a representative of miners at the affected mine. The operator or his agent shall immediately post a copy of this order, citation, notice or decision on the bulletin board of the mine.

Section 110 - Penalties

1. Section 110(a) requires that a civil penalty of up to \$10,000 be issued for each violation of a mandatory health or safety standard or for each occurrence of a particular violation.
2. Section 110(b) - A penalty of up to \$1000 per day may be assessed for each day during which such failure or violation continues
3. Section 110(c) subjects directors, officers and agents to similar penalties (see above) for violating standards or failure or refusal to comply with any order
4. Section 110(d) subjects operators to fines up to \$25,000 and/or imprisonment for up to 1 year for violation of or refusal to comply with orders issued under sections 104 or 107 (or a \$50,000 fine and up to 5 years imprisonment for subsequent violations.) Section 104 deals with citations and withdrawal orders for failure to abate them, patterns of violations, etc. Section 107 deals with procedures to counteract dangerous conditions.
5. Section 110(e) subjects persons giving advance notice of any inspection to fines of up to \$1000 or imprisonment up to 6 months.
6. Section 110(f) subjects a person making false statements, representations, or certifications in any application, record, report, plan or other document filed or required to be maintained under the act to fines up to \$10,000 or imprisonment for up to 5 years or both. An example of a false statement might be changing a record required by MSHA to indicate compliance to a standard that was not complied with.
7. Section 110(g) Miners in underground coal and underground gassy metal/nonmetal mines, who smoke or carry smoking materials, matches, or lighters into these mines, are subject to fines up to \$275 for each violation. In surface mines or surface areas of underground mines, such as around oil houses, explosives magazines or other surface areas where smoking could cause a fire or explosion, the restriction on 'smoking materials' does not apply, but the restriction and fines for the actual act of smoking does apply.
8. Section 110(h) subjects anyone who knowingly distributes, sells, offers for sale, introduces, or delivers in commerce any mining equipment, accessories, etc., to fines up to \$10,000 and imprisonment up to 5 years for falsely representing the equipment as complying with the requirements of the Act.
9. Section 110(i) mandates that the inspector issue a citation for a violation of a mandatory safety and health standard (no inspector discretion is allowed.)

Conferencing Citations

Conferencing a citation means - talking about it. Why talk about a citation? Because all situations are unique, regulations can be general in nature and don't always cover all possible situations. Mine inspectors have to look at a situation and then determine if that situation violates a standard. This can be difficult at times. The inspector may not see all of the circumstances surrounding the situation. If you believe these circumstances could affect either the issuance of a citation or the penalty associated with a citation, then by all means - talk about it!

MSHA gives mine operators and their employees several opportunities to talk about citations.

1. During the inspection itself: If you are accompanying the inspector during the inspection, point out information the inspector misses or answer the inspector's questions.
2. Closeout Conference: When the inspector has finished inspecting your property, you will have an opportunity to review the citations. You should now bring up any pertinent information concerning the citation that was not brought up before.
3. MSHA Supervisory Conference: After the inspection, you have 10 days within which to submit additional information or request a safety and health conference with the District Manager or his designee (usually the local field office supervisor). It is within the sole discretion of MSHA to grant this request for a conference and to determine the nature of the conference.
4. Before any citation is officially assessed, the operator or miners' representative can confer with an MSHA supervisor about any disagreement with the inspector's findings. If the disagreement can't be resolved on this level, the operator is entitled to a hearing before an administrative-law judge with the Federal Mine Safety and Health Review Commission. However, the operator must file a challenge with the Review Commission within 30 days. An operator or miners' representative who disagrees with any other enforcement action by MSHA also is entitled to a hearing. The administrative law judge's decision can be appealed to the commissioners and thereafter to the U.S. Court of Appeals.

The regulation pertaining to conferences is the following: 30 CFR § 100.6 - Procedures for review of citations and orders; procedures for assessment of civil penalties and conferences.

The MSHA program policy notes pertaining to this are found in Volume III, 100.6 - Safety and Health Conferences

A Guide to Contesting Citations & Withdrawal Orders

Abridged version of materials presented in the Mine Safety and Health News: Vol. 3, #7 - 04/05/96

Practical Pointers on Contesting a Citation or Order

Not all MSHA citations are worth fighting. If a citation validly describes a violation and the proposed penalty is within reason, contesting the citation may not be advisable. However, even if you choose not to contest the violation itself, you may contest the inspector's assessment of the risk (gravity) or negligence. If a citation is contested, you will need to decide how much company time and resources should be devoted to responding to the enforcement action. Consider the following when deciding to contest:

- The dollar cost of contest (including the cost of your time);
- The effect and cost of abatement of the alleged violation on your operation and production;
- The effect on your safety and health program;
- The possibility of civil or criminal penalties against individuals in your organization;
- The effect on employee relations and company policies;
- The effect on the mining industry.

Choose your contests carefully. If you fail to timely defend, you may lose your right to defend. The following are basic requirements for contesting a citation or order with which you disagree.

Immediate Contests

(The requirements shown in these directions are based on the Mine Act and the Federal Mine Safety and Health Review Commission's Procedural Rules. The Commission's Procedural Rules are published in Title 29 of the Code of Federal Regulations, Part 2700.)

MSHA may issue citations or withdrawal orders to operators for alleged violations and imminent danger withdrawal orders for imminent dangers. If you feel that the enforcement action is seriously wrong or may force unreasonable compliance costs on you, you have the right to immediately contest the following:

- A citation, withdrawal order or imminent danger order.
- A subsequent modification of the citation or the order.
- The reasonableness of the abatement time specified in the citation.

Many companies consult with competent legal counsel at this point.

When to file Immediate Contest-- The Deadline:

If you want to immediately contest, you must file the contest within 30 days of the receipt of the citation, order, or modification of citation or order.

Where to file Immediate Contest:

The contest of the citation, the withdrawal order, or the immediate danger withdrawal order must be filed with the appropriate Regional Solicitor's Office of the Department of Labor, or the Solicitor's Headquarters Office at 4015 Wilson Blvd., Arlington, VA 22203. A copy of your contest should also be filed with the Commission at its Headquarters Office, 1730 K St., N.W., 6th Fl., Washington, DC 20006.

What to file for Immediate Contest:

There is no particular form for the contest. Label it as "Contest." Date the document. Include your Company Name and other identifying information next. Then specify the action being contested. Finally, include a short and plain statement that contains the following:

- Issues of fact with which you disagree.
- Issues of law with which you disagree.
- The relief you are seeking.

Attach a legible copy of the citation or order being contested. (If no legible copy is available, set forth the text of the challenged citation or order in your contest.)

How to file Immediate Contest:

Your contest must be filed by "personal delivery." This includes courier service, or registered or certified mail, return receipt requested.

MSHA Secretary's Answer to Immediate Contest:

The Secretary, in turn, must file an Answer to your contest of a citation or order alleging a violation within 20 days after your contest. In the case of an imminent danger order, the Secretary must file an answer within 15 days after your contest.

Subsequent Citations or Orders:

If you receive any subsequent citations or orders that modify or terminate the original citation, withdrawal order, or imminent danger order, you must file these with the Commission within 30 days of receipt. Remember, if you don't, your original contest challenges all such subsequent citations or orders. You obviously may not want to challenge something that terminates the original citation or order. Make sure you file all subsequent citations and orders relevant to your contest.

Effect of Failure to file Immediate Contest:

If you choose not to immediately contest a citation or order alleging a violation, that does not prevent you from challenging in the subsequent civil penalty proceeding (see below). In the civil penalty proceeding, you may challenge the fact of violation and any "special findings" in the citation such as S&S and Unwarrantable Failure.

Contesting Proposed Penalties

After the citation or withdrawal order is issued, the Secretary must send you a notification of the violation alleged, the civil penalty he proposes, and a notice of your right (within 30 days) to contest the proposed penalty. This notification includes your "Green Card" for making such a contest.

When to Contest Proposed Penalties-- The Deadline:

You must file your contest within 30 days of receipt of the Notification of Proposed Penalty. Your contest form is the Green Card included with the notification.

Where and What to File Contest to Proposed Penalties:

File your Green Card with the Secretary according to the instructions and address on the Green Card. You may contest both the alleged violation (including MSHA special findings such as S&S or Unwarrantable Failure) and the proposed penalty.

Effect of Failure to Contest Proposed Penalties:

WARNING: If you fail to file your contest (Green Card) within 30 days of receipt, the Mine Act provides that the proposed penalty shall be treated as a final order of the Mine Safety & Health Review Commission not subject to review. Don't risk losing your review rights by failing to file the Green Card.

The Secretary's Penalty Petition:

After receiving your contest (Green Card), the Secretary must, within 45 days, file a petition for assessment of civil penalty with the Commission. (This sets the penalty proceeding in motion.)

Answering the Penalty Petition:

WARNING: Once the Secretary files his penalty petition, your answering responsibilities are not over. You must also file an 'Answer' to the Penalty Petition. Many operators believe that filing out a Green Card is enough to preserve their contest. But, under the Mine Act, you must still reply to the Secretary's penalty petition.

When to File Answer to Penalty Petition-- The Deadline:

The Answer must be filed within 30 days of receipt of the Penalty Petition.

Where to File Answer to Penalty Petition:

File your Answer with the Commission's Headquarters Office, 1730 K Street, N.W., 6th Floor, Washington, D.C. 20006.

What to File:

There is no particular form for the Answer. Label it "Answer". Include your companies Identifying information and the date the document was prepared. Then include a short and plain response to all the allegations in the Secretary's Penalty Petition. In your responses, refer to the following:

- Issues of fact with which you disagree.
- Issues of law with which you disagree.
- The relief you are seeking.

How to file Answer:

You may file an Answer by first class mail, including express mail, or by courier service.

Conclusion

Consult the Commission's procedural rules for more detailed information. Information on the Commission can be found on the Internet at www.fmsihrc.gov . Again: Choose your contests carefully, and then follow the rules for making and preserving your contest.

2. 30 CFR Regulations of Concern to Supervisors and Miners

This chapter is about mine safety regulations. It will describe how to look up regulations, how to use the MSHA program policy manual, where the regulations are found and how to purchase a copy. Also included are some of the regulations of greatest concern to Michigan surface mines.

Title 30 of the Code of Federal Regulations

Federal regulations pertaining to mine safety and health, which are enforced by MSHA, are found in Title 30 of the Code of Federal Regulations, which is referred to here as "30 CFR." Safety and health regulations for other non-mining industries (OSHA) are found in Title 29 of the Code of Federal Regulations. Each mine should have a copy or copies of 30 CFR, which is found in a single volume. Other parts of the Code of Federal regulations may also apply to mine properties.

How to Purchase 30 CFR & MSHA Program Policy Manual

To order 30 CFR: On the Internet, go to: http://www.access.gpo.gov/su_docs/sale.html then type "30 CFR" into the search catalog box. If you choose not to purchase a 30 CFR, the entire contents of 30 CFR is posted at MSHA's Internet site: www.msha.gov .

You can also write to the address listed below.

Title: Code of Federal Regulations, Title 30, Mineral Resources, Pt. 1-199.

Publisher: National Archives and Records Administration, Office of the Federal Register

Mail: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954

Phone: (202) 512-1800 (7:30am - 4:30pm Eastern) FAX: (202) 512-2250

Questions or Comments: Call the GPO Order Desk at 1-202-512-1800 or fax 1-202-512-2250 between 7:30 a.m. and 4:30 p.m. eastern time, Monday through Friday, for information about other print publications or CD-ROM sales.

To order a copy of MSHA's Program Policy Manual, Contact the National Mine Safety and Health Academy:

National Mine Health and Safety Academy
 1301 Airport Road
 Beaver, WV 25813-9426
 Phone: 304/256-3257

How to Use 30 CFR

A table of contents in the front of the 30 CFR book shows what the various subchapters and parts contain. The Subchapters of most concern to Metal and Non-metal Mining are G, H, M, N, P, and Q. A simplified index for these subchapters and parts follows:

Simplified Index of Subchapters and Parts of 30 CFR 1998 ed. (Items in bold are subchapter titles.)

<u>Area of Interest</u>	<u>Subchapter</u>	<u>Part</u>
Accidents, Injuries, Illnesses, Employment and Production	M	
Accidents (Notification, Investigation, Reports, Records)	M	50
Civil Penalties for Violations	P	
Civil Penalties (Criteria and procedures)	P	100
Education and Training (see also Training and retraining of miners)	H	
Employment (Notification, Investigation, Reports, Records)	M	50
Filing and other Administrative Requirements	G	
Fines (See Civil Penalties)	P	100
Illnesses (Notification, Investigation, Reports, Records)	M	50
Hazardous Conditions Complaints (Procedure for processing)	G	43
Health Standards for MNM mines	N	58
Health Standards for Occupational Noise Exposure	N	62
Independent Contractors	G	45
Injuries (Notification, Investigation, Reports, Records)	M	50
Legal Identity (Notification of)	G	41
Mine Rescue Teams	H	49
Modifying Mandatory Safety Standard (Petitioning for)	G	44
National Mine Safety and Health Academy	H	47
Pattern of Violations	P	
Pattern of Violations	P	104
Representative of miners	G	40
Safety & Health Standards Metal/Non-metal Mines	N	
Surface Safety and Health standards	N	56
Underground Safety and Health standards	N	57
Training and Retraining of Miners	H	48
Training and Retraining of Certain Surface Miners	H	46

How to use the MSHA Program Policy Manual

The MSHA Program Policy Manual is a collection of letters & policies used by MSHA to help clarify the Mine Act and regulations presented in 30 CFR. Included is information on how certain regulations should be interpreted. The Manual is set up in 5 volumes. The three volumes listed below are the ones MNM mine operations should be familiar with. All Program policy letters reference a section of the act or a specific regulation. Be familiar with the referenced material.

Volume 1: The Mine Safety and Health Act of 1977

This volume deals with MSHA policies as they concern the 1977 Mine Act itself. Policies in this volume will reference specific sections of the Act. All other volumes in the Program Policy Manual will refer to 30 Code of Federal Regulations (CFR).

Volume 3: 30 CFR Parts 40 - 50 and Part 100

Since these parts affect MNM mining, these mine operations should keep up to date with changes in this volume.

Volume 4: Metal and Non Metal Mines

The title says it. MNM mine operations should keep up to date with changes in this one, also.

Note that the easiest way to use the MSHA Program Policy Manual is to look up the regulation on MSHA's home page on the internet at www.msha.gov which provides a search function for locating regulations pertaining to the particular topic you are interested in (see detailed information on how to use the MSHA internet site in Chapter 5). The regulation includes hypertext (Highlighted Text) which, when clicked on with the mouse takes you directly to the corresponding section of the Program Policy Manual.

The Little Blue Book - 30 CFR Parts 56, 57, 58

Mine Safety Associates of Price Utah put out a small 2"x4" Pocket sized publication of the 30 CFR regulations that apply specifically to Metal/Nonmetal mines. It is considerably smaller than a full edition of 30 CFR and many supervisors consider it convenient enough to carry with them. It is often referred to as the Little Blue Book. To order a copy, simply write to: Mine Safety Associates, Price, Utah, 84501 or call them at 1-800-430-2377 (Fax: 801-637-8614) Copies cost about \$12 apiece, and there is a savings for bulk orders.

Resources for Locating Changes in MSHA Regulations

MSHA Internet Site is at "www.msha.gov". This is currently the easiest to use and the best source of up-to-date information.

MSHA Phone Contacts - Contact MSHA at the following numbers.

Metal and Nonmetal Mine Safety and Health Addresses & Phone Numbers

- **Office of the Administrator**, 4015 Wilson Boulevard Room 730, Arlington, Va. 22203
Phone: (703) 235-1565 Fax: (703) 235-3686 e-mail: eteaster@msha.gov

- **Health Division:** Telephone: (703) 235-8307 Fax: (703) 235-9173
- **Safety Division:** Telephone: (703) 235-8647 Fax: (703) 235-9173
- **Technical Compliance & Investigation Div.:** Phone: (703) 235-1708 Fax: (703) 235-9173
- **MSHA Field Office, Lansing, MI** - Phone: (517) 377-1751 e-mail: gdholema@msha.gov
- **MSHA Field Office, Marquette, MI** - Phone: (906)228-6805 e-mail: pablome@msha.gov
- **MNM North Central District**, Federal Building U.S. Courthouse, 515 W. 1st Street #333, Duluth, MN 55802 Phone:(218)720-5448 Fax:(218)720-5650 e-mail: faquinta@msha.gov
- **MSHA's Office of Information & Public Affairs** - Phone: (703) 235-1452

MSHA Program Policy Letter Updates

These may be obtained from MSHA's Internet site at "www.msha.gov" or contact the National Mine Safety and Health Academy at the following address:

National Mine Health and Safety Academy
1301 Airport Road
Beaver, WV 25813-9426
Phone: 304/256-3257

You may also request that MSHA mail you any updates to the program policy manual.

Industry Periodicals

The Holmes Safety Association Bulletin is mailed monthly, free of charge, to mining operations that request it. This bulletin is the best source of up-to-date information related to mine safety and health. For a subscription, call the Homes Safety Association at 703/235-1400.

If you subscribe to any of the more common mining industry periodicals, chances are they have a section devoted to news from MSHA. The following are some examples.

<u>Name:</u>	<u>Published:</u>	<u>Phone #</u>
Pit & Quarry	Monthly	888/527-7008
Aggregates Manager	Monthly	717/337-0027
Mine Safety and Health News	Bi-Weekly	716/582-3211
Rock Products	Monthly	1-800-441-0294
Legal Quarterly Digest of Mine S&H Decisions	Quarterly	716/582-3211

Some Regulations of Special Interest to Supervisors of Surface Metal/Nonmetal Mines

If an MSHA inspector comes to your property for an inspection, the following is a list of regulations that will probably be included in the inspection. Remember all mine operators are required to be in compliance with all MSHA regulations that apply to their mine operation. However, the following is a good starting checklist.

NOTE: The narrative following the regulation number in this list is an abridged version of the full regulation. It is intended to give you a general idea of what that regulation states. For the full regulation and MSHA policy, see 30 CFR and MSHA's Program Policy Manual.

ELECTRICAL

56.12032 - Cover plates

Inspection and cover plates on electrical equipment and junction boxes must be kept on except during testing or repairs.

56.12030 - Dangerous condition, correction of

When a potentially dangerous condition is found it must be corrected before equipment or wiring is energized.

56.12004 - Electrical conductor size

Electrical conductors must be of sufficient size and load carrying capacity and also protected from mechanical damage.

56.12001 - Fuses and circuit breakers

Circuits must be protected by fuses or circuit breakers of the correct type and capacity.

56.12034 - Guarding lights

Portable extension lights and other lights that by their location present a shock or burn hazard must be guarded.

56.12025 - Grounding

All metal enclosing or encasing electrical circuits must be grounded or provided with equivalent protection. This requirement does not apply to battery-operated equipment.

56.12008 - Insulation on wires and fittings

Wires and cables must be insulated where they enter electrical compartments. Cables must enter metal frames through proper fittings. The holes must be bushed with insulated bushings

56.12018 - Labeling power switches

Principal power switches must be labeled to show which units they control, unless obvious by location.

56.12035 - Lamp sockets construction

Lamp sockets must be of a weatherproof type where they are exposed to weather or wet conditions that may interfere with illumination or create a shock hazard.

56.12016 and .12017 -Lockout/Tagout

Electrically powered equipment must be de-energized before performing mechanical work. Power switches must be locked out or other measures taken. Suitable warning notices must be posted at the power switch and signed by the individuals doing the work. Locks are to be removed only by persons who installed them or authorized personnel. Power circuits shall be de-energized before work is done on such circuits unless hot-line tools are used. The individuals who are to do the work shall post suitable warning signs. Switches shall be locked out or other measures taken which shall prevent the power circuits from being energized without the knowledge of the individuals working on them. Such locks, signs, or preventative devices shall be removed only by the person who installed them or by authorized personnel.

56.12013 - Splices, Permanent

Permanent splices and repairs made in power cables, including the ground conductor where provided, shall have the equivalent of or better conductivity, strength and insulation characteristics than the original conductor

56.12021 - Signs, Danger

Suitable danger signs must be posted at all major electrical installations.

56.12067 - Transformer enclosures

Transformers must be totally enclosed, or placed at least 8 feet above the ground, or installed in a transformer house, or surrounded by a substantial fence at least 6 feet high and at least 3 feet from any energized parts, casings, or wiring.

56.12068 - Transformer enclosures

Transformer enclosures must be kept locked against unauthorized entry.

EQUIPMENT (See MACHINERY & EQUIPMENT)

EXAMINATIONS (See Chapter 6 of this Manual)

FIRE PREVENTION

56.4200 (b) (1) - Fire fighting equipment

A mine must have on-site equipment for fighting fires that could endanger persons including: (1) Equipment for fires in their early stages; (2) Equipment for fires beyond their early stages, or prior arrangements with a local fire department to fight such fires. This onsite equipment must be of the type, size, and quantity that can extinguish fires of any class which could occur as a result of the hazards present and strategically located, readily accessible, plainly marked, and maintained in fire-ready condition.

56.4501 - Fuel lines

Fuel Lines must be valved for shutoff in case of fire - (doesn't pertain to self-propelled equipment).

56.4402 - Fuel safety cans

Small amounts of flammable liquids must be kept in properly labeled safety cans.

56.6101 - Storage of explosives

Explosives must be stored at least 25 feet from combustibles including dry grass except live trees 10 feet or higher. Other combustibles must not be stored or allowed to accumulate within 50 feet. Drainage of stored combustible liquids must be away from explosive material storage facilities.

56.4601 - Storage of oxygen cylinders

Oxygen cannot be stored in rooms or areas used or designated for storage of flammable or combustible liquids including grease.

56.4104 - Storage of waste materials

Waste materials, including liquids, must not accumulate in quantities that could create a fire hazard. Waste or rags containing flammable or combustible liquids that could create a fire hazard must be placed in covered metal containers or equivalent.

LOADING, HAULING AND DUMPING

56.14132 (a) (b) - Backup alarm requirements

a) Manually operated horns or other audible warning devices provided on self-propelled mobile equipment as a safety feature shall be maintained in functional condition.

b) (1) When the operator has an obstructed view to the rear, self-propelled mobile equipment shall have-- (i) An automatic reverse-activated signal alarm; (ii) A wheel-mounted bell alarm which sounds at least once for each three feet of reverse movement; (iii) A discriminating backup alarm that covers the area of obstructed view; or (iv) An observer to signal when it is safe to back up. (2) Alarms shall be audible above the surrounding noise level. (3) An automatic reverse-activated strobe light may be used at night in lieu of an audible reverse alarm.

56.9301 - Berms - dumping locations

Berms, bumper blocks, safety hooks, or similar impeding devices must be provided at dumping locations where there is a hazard of overtravel or overturning.

56.9300 - Berms/guardrails - roadways

Berms or guardrails of at least mid-axle height (of largest vehicle) must be provided and maintained on banks of roadways with drop-off of sufficient grade or depth to cause vehicle to overturn or endanger persons in equipment. Berms may have openings for roadway drainage. Berms are not required on infrequently traveled roads used only by service or maintenance vehicles, when all of the following exist: (1) Locked gates are installed at the entrance points to the roadway, (2) Signs are posted warning that the roadway is not bermed, (3) Delineators are installed along the perimeter of the elevated roadway so that, for both directions of travel, the reflective surfaces of at least three delineators along each elevated shoulder are always visible to the driver and spaced at intervals sufficient to indicate the edges and attitude of the roadway, (4) A maximum speed limit is posted and observed for the elevated unbermed portions of the roadway (factors to consider when establishing the maximum speed limit must include the width, slope and alignment of the road, the type of equipment using the road, the road material, and any hazardous conditions which may exist), (5) Road surface traction is not impaired by weather conditions, such as sleet and snow, unless corrective measures are taken to improve traction.

56.14101 (a) (3) - Brakes

Minimum requirements for self-propelled mobile equipment - Service brake system must be capable of stopping and holding the equipment with its typical load on the maximum grade it travels. Not applicable to equipment not originally equipped with brakes unless the manner in which the equipment is being operated requires the use of brakes for safe operation. (Not applicable to rail equipment.) (2) If equipped, parking brakes must be capable of holding the equipment with its typical load on the maximum grade it travels. (3) All braking systems must be maintained in functional condition.

56.9315 - Dust control

Dust must be controlled at muck piles, material transfer points, crushers, and on haulage roads where hazards to persons would be created as a result of impaired visibility. See also Dust Overexposure under "PPE".

56.3131 - Loose or unconsolidated material slopes

In places where persons work or travel, loose or unconsolidated material must be sloped to the angle of repose or stripped back for at least 10 feet from the top of the pit or quarry wall. Other conditions at or near the perimeter of the pit or quarry wall, which create a fall-of-material hazard to persons, must be corrected.

56.9201 - Loading, transporting, and unloading

Loading, transporting, and unloading of equipment and supplies must not create a hazard to persons from falling or shifting equipment or supplies.

56.14207 - Parking requirements for mobile equipment

Mobile equipment shall not be left unattended unless the controls are placed in the park position and the parking brake, if provided, is set. When parked on a grade, the wheels or tracks of mobile equipment shall be either chocked or turned into a bank or rib.

56.9313 - Road cleanup

Water, debris, or spilled material on roadways, which creates hazards to the operation of mobile equipment, must be removed.

56.14130 (a) - Seat Belts and ROPs requirement and construction

Tells where and how rollover protective structures (ROPS) and seat belts must be installed, how constructed, how maintained, limitations in altering, exceptions (manufactured before 1969) etc. Wearing seat belts. The equipment operator shall wear seat belts except that when operating graders from a standing position, the grader operator shall wear safety lines and a harness in place of a seat belt. Seat belts and tethers shall meet the requirements of SAE J386, "Operator Restraint Systems for Off-Road Work Machines", 1985; or SAE J1194, "Roll-Over Protective structures (ROPS) construction - as under "Wheeled Agricultural Tractors", 1983, as applicable, which are incorporated by reference.

56.9100 - Traffic control rules

Requires traffic control rules governing speed, right-of-way, direction of movement, and the use of headlights to assure appropriate visibility; also properly placed signs or signals that warn of hazardous conditions.

56.14103 (a) - Window construction on mobile equipment

Mobile equipment windows must be made of safety glass or material with equivalent safety characteristics. The windows must be maintained to provide visibility for safe operation.

MACHINERY AND EQUIPMENT

Detailed examples of proper guarding are illustrated in MSHA's Guarding Manual, which can be purchased by contacting National Mine Health and Safety Academy, 1301 Airport Road, Beaver, WV 25813-9426 or Phone: 304/256-3257.

56.14201(b) - Conveyor startup warning

When the entire length of the conveyor is not visible from the starting switch, a visible or audible startup warning is required. The conveyor must start within 30 seconds.

56.14112 (a) (b) - Guard construction

Guards must be constructed and maintained to-- (1) Withstand the vibration, shock, and wear to which they will be subjected during normal operation; and (2) not create a hazard by their use. Guards must be securely in place while machinery is being operated, except when testing or making adjustments, which cannot be performed without removal of the guard.

56.14109 - Guarding conveyors next to the travelways

Unguarded conveyors next to travelways must be equipped with-- (a) Emergency stop devices which are located so that a person falling on or against the conveyor can readily deactivate the conveyor drive motor; or (b) Railings which (1) Are positioned to prevent persons from falling on or against the conveyor; (2) Will be able to withstand the vibration, shock, and wear to which they will be subjected during normal operation; and (3) Are constructed and maintained so that they will not create a hazard.

56.14110 - Guarding - flying or falling materials

In areas where flying or falling materials generated from the operation of screens, crushers, or conveyors present a hazard, guards, shields, or other devices that provide protection against such flying or falling materials shall be provided to protect persons.

56.14107 (a) - Guarding of moving machine parts

Moving machine parts must be guarded to protect persons from contacting gears, sprockets, chains, drive, head, tail, and take-up pulleys, flywheels, couplings, shafts, fan blades, and similar moving parts that can cause injury. Guards aren't required where the exposed moving parts are at least seven feet away from walking or working surfaces.

56.14108 - Guarding of overhead drive belts

Overhead drive belts must be guarded to contain the whipping action of a broken belt if that action could be hazardous to persons.

56.14112 - Guards - securing

Guards must be securely in place when machinery is operated.

56.13021 - High pressure hose safety chains

Safety chains or other suitable locking devices shall be used on high-pressure hose lines of $\frac{3}{4}$ inch inside diameter or larger.

56.14200 - Startup alarm requirements

Before starting crushers or moving self-propelled mobile equipment, equipment operators shall sound a warning that is audible above the surrounding noise level or use other effective means to warn all persons who could be exposed to a hazard from the equipment.

OTHER

56.11001 - Access - safe

Safe means of access shall be provided and maintained to all working places.

56.16005 - Compressed and liquid gas cylinders

Compressed and liquid gas cylinders shall be secured in a safe manner.

56.16006 - Compressed gas cylinders - Valves

Compressed and liquid gas cylinder valves shall be protected by covers when being transported or stored, and by a safe location when the cylinders are in use.

56.15001 - Emergency supplies

Adequate first-aid materials, including stretchers and blankets, shall be provided at places convenient to all working areas. Water or neutralizing agents shall be available where corrosive chemicals or other harmful substances are stored, handled, or used.

56.20003 - Housekeeping

At all mining operations -(a) Workplaces, passageways, storerooms, and service rooms shall be kept clean and orderly; (b) The floor of every workplace shall be maintained in a clean and, so far as possible, dry condition. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places shall be provided where practicable; and (c) Every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards, as practicable.

56.11012 - Openings around travelways

Openings above, below, or near travelways through which persons or materials may fall, must be protected by railings, barriers, or covers. Where it is impractical to install such protective devices, adequate warning signals must be installed.

56.5005 - Respirator program/fit-testing

Respirator program/fit-testing required if over-exposure is found during MSHA health sampling. Not enforced/required by MSHA if no overexposure is found. Respirator use in an "Immediately Dangerous to Life and Health (IDLH)" atmosphere requires another person standing by with backup and rescue capability.

56.11027 - Scaffolds and working platforms

Scaffolds and working platforms shall be safe to work on and maintained in a safe condition. Good information on scaffolding construction may be obtained from OSHA regulations in CFR 29 subpart L 1926.451

56.14130(i) - Seat belts maintenance

Seat belts shall be maintained in a functional condition, and replaced when necessary to assure proper performance.

56.11016 - Snow and ice cleanup

Regularly used walkways and travelways shall be sanded, salted, or cleared of snow and ice as soon as practicable.

56.16004 - Storage of hazardous materials

Hazardous materials shall be stored in containers of a type approved for such use by recognized agencies; such containers shall be labeled appropriately.

56.16001 - Storage of supplies

Supplies shall not be stacked or stored in a manner, which creates tripping or fall-of-material hazards.

56.9317 - Suspended loads

Persons must stay clear of suspended loads.

56.11002 - Toeboards and handrails

Crossovers, elevated walkways, elevated ramps, and stairways shall be of substantial construction provided with handrails, and maintained in good condition. Where necessary, toeboards shall be provided. Toeboards prevent tools and materials from falling off a walkway and creating a hazard to workers below. They also help prevent workers from slipping under the guardrail.

56.20008 - Toilet facilities

Toilet facilities shall be provided at locations that are compatible with the mine operations and that are readily accessible to mine personnel. (b) The facilities shall be kept clean and sanitary. Separate toilet facilities shall be provided for each sex except where toilet rooms will be occupied by no more than one person at a time and can be locked from the inside. Toilets should be located where moving equipment does not endanger workers going to or from them.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

MSHA considers engineering controls to be the best approach to controlling hazards. However, when a mine operator demonstrates that engineering controls are not feasible, MSHA may allow alternative solutions. The next priority for alternative control is administrative control. An example of an administrative control is removing an employee from the danger, or in the case of a health hazard, to limit the amount of time the employee can spend in the areas affected. When neither engineering nor administrative controls are feasible, MSHA may require a mine operator to use PPE. Under these conditions, PPE is viewed by MSHA to be only a temporary solution for use while suitable engineering controls are being developed. Certain PPE (head, eye, foot) are almost always required by company policy in all areas except offices.

56.5001(a)(5) - Dust overexposure

(a) Except as provided in paragraph (b) of this section, the exposure to airborne contaminants shall not exceed, on the basis of a time weighted average, the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists, as set forth and explained in the 1973 edition of the Conference's publication, entitled "TLV's Threshold Limit Values for Chemical Substances in Workroom Air Adopted by ACGIH for 1973," pages 1 through 54 etc. It is important for mine employees to be aware that once an overexposure condition is found by MSHA, the mine operator and its employees are subject to numerous requirements. These include the need to supply and use respirators, possible medical evaluations of all affected

employees, respirator fit testing and training, monitoring, the need to develop effective engineering controls, additional record keeping etc. The best way to avoid these time-consuming requirements is to control employee exposure to airborne contaminants now, by the proper use of water sprays, control booths, ventilation and other means to keep employee exposure to dust to a minimum.

56.15005 - Fall protection

Safety belts (full-body harnesses are highly recommended for fall arrest) and lines shall be worn when persons work where there is danger of falling; a second person shall tend the lifeline when bins, tanks, or other dangerous areas are entered.

56.15003 - Footwear

All persons shall wear suitable protective footwear when in or around an area of a mine or plant where a hazard exists which could cause an injury to the feet.

56.15004 - Glasses

All persons shall wear safety glasses, goggles, or face shields or other suitable protective devices when in or around an area of a mine or plant where a hazard exists which could cause injury to unprotected eyes.

56.15002 - Hard hats

All persons shall wear suitable hard hats when in or around a mine or plant where falling objects may create a hazard.

RECORDS & EXAMINATIONS (See Chapter 6 of this Manual)

SAFETY SYSTEMS REQUIRED

56.18009 Person in charge of mine

Competent person designated by the mine operator shall be in attendance to take charge in case of an emergency.

56.18010 - Emergency first aid

Requires individual currently trained in selected topics and capable of providing first aid to be available on all shifts.

56.18012 - Emergency telephone numbers

Requires posting at appropriate telephones. Note: It does little good to have emergency phone numbers if the employees are not trained to describe how emergency personnel can locate the site of the emergency.

56.18013 - Emergency communication system

Emergency communication system required at the mine to obtain assistance in the event of an emergency.

56.18014 - Emergency medical assistance and transportation

Requires arrangements be made in advance for obtaining emergency medical help and transportation for injured persons.

56.18010 - First Aid Training

At least one worker per workgroup must have training in Advanced First aid. (As described in Chapter 3)

40.1 to 40.5 - Representative of miners

How a person becomes a miner's representative and requirements of position.

46 & 48 (All) - Safety Training and Retraining

Company Safety Training Plan including Annual Refresher Training, New Miner Training, Contractor Training, Hazard Awareness Training, Task Training, and other safety training as required by circumstance (such as respirator fit testing and training.) - Every mining contractor subject to Part 46 Training Requirements (See Chapter 3) must have an approved training plan on file.

56.9100 - Traffic control rules

Traffic control rules governing speed, right-of-way, direction of movement, and the use of headlights to assure appropriate visibility are required; also properly placed signs or signals that warn of hazardous conditions.

56.18020 - Working alone.

No employee shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger the employee's safety unless the employee can communicate with others, can be heard, or can be seen.

3

3. Safety and Health Training Requirements for Surface Miners and Contractors

This chapter will describe the different types of MSHA-required training for workers at surface metal and nonmetal mines.

Who needs Mine Safety Training?

All mining operations, regardless of size, must provide safety training for workers, and most supervisors. Contractors working on the mining property, customers, and visitors to the mine property may need the same training as miners if certain criteria are met. Regulations covering training requirements for surface mining operations can be found in 30 CFR Parts 46 and 48.

The definition of a **'miner'** for training purposes includes: **any person who is engaged in the extraction and production process; or who is regularly exposed to mine hazards; or who is a maintenance or service worker contracted by the operator to work at the mine for frequent or extended periods.** "Frequent" exposure is defined as a pattern of exposure to hazards at mining operations occurring intermittently and repeatedly over time. "Extended" exposure means exposure to hazards at mining operations of more than five consecutive workdays. Such workers are required to receive training as outlined in 30 CFR Parts 46 or 48 depending upon which type of mine they are serving. Short-term workers, such as drillers and blasters have special training circumstances. Since the work they perform is similar from mine site to mine site, these types of workers need only get site specific hazard training at each new mine site, as long as they have fulfilled their timely comprehensive training requirement under Part 46 or Part 48, including annual refresher training. Supervisory personnel who meet any of the above definitions for a miner must also receive training.

Mine Safety training - Are you under Part 46 or Part 48?

Surface metal and nonmetal mining operations in Michigan that are subject to 30 CFR Part 48 training regulations include metal mines and gypsum mines. Surface coal mines, which are not found in Michigan, also come under Part 48. Virtually all other surface mining operations in the state of Michigan (and elsewhere in the US) are required to follow the training guidelines set forth in 30 CFR Part 46. (If you have a question about which part your mine fall under, contact your local MSHA field office.)

Training Plans

Every mine, no matter how small, (and contractors considered to be miners under the standard) must have a training plan detailing how the five types of training (discussed below) are to be accomplished. Upon request, the Michigan Mine Safety and Health Training Program (phone 906/487-2453) will assist mines and contractors in making up their training plans. Instructor guides and other useful information for creating your own training plans can be found on the Internet at MSHA's web site: www.msha.gov .

For mines covered under Part 48 of the Standard, MSHA-certified instructors must conduct the training from a plan (either the trainer's plan or the company's plan) that has been approved and signed by MSHA.

Mines covered under Part 46 of the Standard need "competent" persons designated by the mine operator (or contractor) to conduct their training. These persons and the subject matter they are qualified to teach must be specified in the training plan. A mining operation's Part 46 training plan is considered to be approved by MSHA if it contains all of the information required by the standard, and if mine employees or their representatives have had two weeks to review the plan and have not contested it.

Training Requirements for Parts 48 and 46 Mines

Table 4.1 - "Parts 46 And 48 Surface Mine Training Requirement Chart", lists the training requirements for surface mines that come under Part 46 and 48 of the Standard. Five types of training are required, including:

- **New miner:** This training is for newly hired miners who have not received new miner training; or for newly hired miners who have received new miner training, but have not accumulated 12 months of experience in the 36 months after completing the new miner training. 24 hours of training is needed for new miners and specific topics outlined in the regulations must be included. There are exceptions to this rule for Part 46 miners. Miners employed on April 14, 1999, and miners hired after April 14, 1999 who have had new miner training or gotten 12 months of experience prior to Oct 2, 2000 will be automatically considered experienced miners.
- **Newly hired experienced miner:** No training-time requirement is listed in either Part 48 or 46 of the Standard. However, miners who fall under Part 48 and have not been in mining for the previous 5 years, must have 8 hours of training prior to work. Specific topics for Newly Hired Experienced Miners are very similar to those under New *In*experienced Miner Training. (See Table 4.1)
- **New Task Training:** New Task Training is required whenever a miner is assigned to a new task. Training times will vary and times should be included in the mine's training plan for each task. Required subjects are listed in Table 4.1.
- **Annual Refresher:** 8 hours of Annual Refresher Training is required once each year and this training must be completed by the end of the same month in which the miner had completed training during the previous year. The only subject specified in the Part 46 standard is

“Changes in the Work Environment That Could Adversely Affect Health and Safety” although the Standard does state, “Refresher training must also address other health and safety subjects that are relevant to mining operations at the mine”. A large number of subjects are recommended in the Part 46 Standard. The Part 48 Standard gives a whole list of required subjects as well. (See Table 4.1)

- **Site Specific Hazard Awareness Training:** This training is required for others visiting or working at a mine. Under Part 46, miners such as drillers or blasters, who move from one mine to another, while remaining employed by the same production-operator or independent contractor, must be provided with site-specific hazard awareness training for each mine. A training record meeting the Standard’s requirements must be on file for these miners. Part 46 does not require written records for hazard training of non-miners. However, upon the request of MSHA, a mine must be able to show evidence that this training was provided. Part 48 does not require written records for hazard training that is not a part of one of the other types of training where records are required. Training times will vary depending on the worker or visitor's exposure to hazards.

Written records must be on file for New Miner, Newly-Employed Experienced Miner, Task and Annual Refresher training. For Part 48 Training, a Form 5000-23 must be completed for each miner trained. For Part 46 training, either a Form 5000-23 or other certificate containing the minimum information required by the Part 46 Standard must be used (See sample forms in Chapter 6). The person at the mine who had been designated "responsible for Safety and Health Training" (as shown on the training plan) must certify all Part 46 training records.

Records under Part 46 may be kept on paper or on a computer file. In either case, they must be available for inspection by an MSHA representative. If records are kept in a computer file, the file must be printed and signed to create the certificate if the MSHA representative requests to see it.

Length of Training Record Retention for Part 48 Mines.

Copies of Part 48 training certificates for currently employed miners shall be kept at the mine site for 2 years, or for 60 days after termination of employment

Length of Training Record Retention for Part 46 Mines.

Each mine must maintain copies of training certificates and training records for each currently employed miner during his or her employment, except records and certificates of annual refresher training under Part 46.8, which must be maintained for only two years. Each mine must maintain copies of training certificates and training records for at least 60 calendar days after a miner terminates employment.

MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

Table 4.1 - PARTS 46 AND 48 SURFACE MINE TRAINING REQUIREMENT CHART

This is a best effort to summarize information. Accuracy is not guaranteed.

TRAINING AREAS		24 HOUR NEW MINER TRAINING		NEWLY EMPLOYED EXPERIENCED MINER TRAINING		TASK TRAINING (NEW or CHANGES)****		8 HOUR ANN. REFRESHER TRAINING		HAZARD TRAINING	
		PART 48	PART 46	PART 48	PART 46	PART 48	PART 46	PART 48	PART 46	PART 48	PART 46
		1	Introduction to the Work Environment	X	X	X	X				
2	Hazard Recognition and Avoidance	X	X	X	X		X**			X	X
3	Emergency Medical Procedures	X	X	X	X						
4	Health and Safety Aspects of the Task	X	X	X	X	X	X				
	or task-specific hazard recognition training + practice under close supervision of competent person.		X		X						
5	Statutory Rights of Miners	X	X		X						
6	Auth. and Resp. of Supervisors/Miner's Reps.	X	X	X	X						
7	Introduction to Rules for Reporting Hazards		X		X						
8	Self-Rescue and Respiratory Devices	X	X	X	X			X	rec.	X	
9	First Aid Review	X	X					X	rec.		
10	Changes that could adversely affect health & safety			X	X*				X		
11	Safety Rules and Safe Working Procedures		X		X		X			X	
12	Supervised Practice (non-production)					X ¹	X****				
13	Other relevant health and safety subjects -- see recommended (rec.) ones								X		
14	Mandatory Health and Safety Standards	X	X	X	X			X	rec.	X	
15	Transportation Systems and Controls	X						X	rec.		
16	Communication Systems	X		X					rec.		
17	Escape and Emergency Evacuation Plans	X		X				X	rec.	X	X
18	Firewarning and Firefighting	X	X	X	X			X	rec.		
19	Ground Conditions and Control								rec.		
20	Traffic Patterns and Control		X		X				rec.		X
21	Working in Areas of highwalls								rec.		
22	Water Hazards, Pits and Spoil Banks	X		X				X	rec.		
23	Illumination and Night Work	X							rec.		
24	Electrical Hazards	X	X		X			X	rec.		X

Continued next Page.

Table 4.1 - PARTS 46 AND 48 SURFACE MINE TRAINING REQUIREMENT CHART

This is a best effort to summarize information. Accuracy is not guaranteed.

TRAINING AREAS		24 HOUR NEW MINER TRAINING		NEWLY EMPLOYED EXPERIENCED MINER TRAINING		TASK TRAINING (NEW or CHANGES)****		8 HOUR ANN. REFRESHER TRAINING		HAZARD TRAINING	
		PART 48	PART 46	PART 48	PART 46	PART 48	PART 46	PART 48	PART 46	PART 48	PART 46
25	Prevention of Accidents			X				X	rec.		
26	Health	X		X				X	rec.		
27	Explosives	X						X	rec.		
28	Mobile Equipment hazards		X		X				rec.		
29	Conveyor System Hazards								rec.		
30	Crane Hazards								rec.		
31	Crusher Hazards								rec.		
32	Excavator Hazards								rec.		
33	Dredge Hazards								rec.		
34	Maintenance and Repair (Hand tools and Welding Equipment.								rec.		
35	Material Handling								rec.		
36	Fall Prevention and Protection								rec.		
37	Machine Guarding								rec.		
38	Information or Instructions on hazards person exposed to at the mine and applicable emergency procedures.										X
39	Powered Haulage Hazards										X
40	Other special safety procedures										X
41	Unique Geologic and Environmental Cond.										X
42	Restricted Areas										X
43	Warning and Evacuation Signals										X
44	Ground Control (highwalls)	X		X				X	rec.		
45	Supervised Operation During Production					X ¹					
46	New or Modified Machines and Equip. Training					X ¹					
47	Other training Required by District	X		X		X ¹		X		X	

* Only for miner who returns to same mine within 12 months and the only course he/she must take other than missed parts of annual refresher training.

** Hazard recognition training required if practice under supervision of a competent person used to fulfill task training requirement.

*** Competent person required (non-production not specified under Part 46).

**** Credit task training under Part 46 to New Miner Training

x¹ Required for miners assigned to new work tasks as mobile equipment operators, drilling machine operators, haulage and conveyor systems operators, ground control machine operators, and those in blasting operations.

'rec.' stands for 'recommended' topic area. These are topics that are not required by law but can be used to fulfill training requirements.

Independent Contractors.

For training purposes, independent contractors working on mining properties that are subject to either Part 48 or Part 46 training requirements may be considered to be miners. Contract miners working at mines subject to Part 48, would be trained under the mine's training plan or the MSHA-Certified trainer's plan. Contract miners working on mining properties subject to Part 46 need their own training plans. Contractors should contact the MSHA field office supervisor to determine whether or not they need full comprehensive training (such as new miner training), and whether they will need a training plan for the work they will be doing on mine property.

Not all contractors are required to obtain MSHA Contractor I.D. numbers (See Ch.5 of this manual), but if contractors have one, it should be part of the identifying information included on all their Part 46 training plans. Contractor I.D. numbers may be obtained by contacting the local MSHA field office. Requests can also be processed via the Internet as well. Go to <http://www.dol.gov/elaws/contractorid.htm> on your browser and follow the on-line instructions.

The mining operation, not the contractor, is responsible for providing contractors with site-specific hazard-awareness training. Conversely, if work done by the contractor creates hazards for mine employees, the contractor must provide hazard specific training to those mine employees exposed. All site-specific hazard training must be given before work starts at each mine site. Although no certificate of site-specific hazard training is required, MSHA will want evidence that it is, in fact, being done.

For Your Information

MSHA field offices in Michigan are located in Marquette (Phone number 906/228-6805) and Lansing (Phone number 517/377-1751).

For assistance with these two regulations, contact the Mine Safety & Health Training Program at Michigan Tech University (906) 487-2453 or contact Educational Field Assistance (EFS) at the following locations.

Eastern U.S.

Call Toll Free: 1-800-678-6746

E-mail: part46east@msha.gov

Western U.S.

Call Toll Free: 1-800-579-2647

E-mail: part46west@msha.gov

On the Internet, the Part 46 Training Assistance Page is available as a link on the MSHA home page (www.msha.gov). Available items include a 30 CFR Part 46 Starter Kit with Sample Training Plan (IG 36), Instructor's Guide with Lesson Plans (IG 37), the part 46 rule, and Compliance Guideline for MSHA's Part 46 Training Regulations. All items can be ordered from:

The National Mine Health & Safety Academy
1301 Airport Road

Beaver, WV 25813-9426
Call (304) 256-3257
FAX (304) 256-3368
E-mail: mlord@msha.gov

Also find the Compliance Guide for MSHA's 1999 Modified Regulations on Training & Retraining of Miners at: <http://www.msha.gov/regs/complian/guides/train/cover.htm>

First Aid Training

30 CFR 56.18010 - First Aid - An individual capable of providing first aid shall be available on all shifts. The individual shall be currently trained and have the skills to perform patient assessment and artificial respiration; control bleeding; and treat shock, wounds, burns, and musculo-skeletal injuries. First aid training shall be made available to all interested miners.

The Michigan Mine Safety & Health Training Program (906-487-2453) has a 4-hour course that meets the above requirements. The standard doesn't require CPR, and this is not covered in the 4-hour course. Courses meeting the Standard's requirements are taught by a number of organizations. MSHA requires that the trainees meet the standards set by the certifying organization.

Respirator Training and Fit-testing

30 CFR 56.5005 - Control of exposure to airborne contaminants - Where respirators are required, the miner must be trained in the proper use and care of the respirator. They must also be fit tested to ensure that the respirator is being worn properly and functions properly.

MSHA requires that a miner's exposure to airborne contaminants shall not exceed the limit for any substance on the 1973 ACGIH TLV list. When this exposure limit is exceeded a citation is issued and Part 56.5005 mandates that operators install feasible engineering controls to reduce a miner's exposure. Respiratory protection is required when controls are not feasible, as well as while establishing controls, and during occasional entry into hazardous atmospheres to perform short-term maintenance or investigations. If respirators are used, operators must have a respirator program containing all of the elements of the standard, which incorporates ANSI Z88.2-1969.

The Michigan Mine Safety and Health training program can do respirator fit testing upon request. (906-487-2453)

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4. Getting Mine Safety Information

This chapter describes the information sources you can access to answer your mine safety questions and provide you with other valuable information.

MSHA Internet Site (www.msha.gov)

The MSHA Internet site is the best, most complete, and most up-to-date source of official information. Among other things, Safety training instructor guides and training plan kits can be downloaded from this site. There are several ways to navigate the site.

MSHA's home page has a "Search" button, which will access a search program that allows you to type in a word, or phrase about your topic of interest. MSHA has detailed instructions on how to use the search function. The following are general instructions:

1. Go to www.msha.gov
2. On the page that appears, click on the "Search" button. This takes you to the Search Page.
3. At the bottom of the search page are listed some categories for search. Two categories used often are "Program Policy Manual" and "30 CFR".
4. You can click on any of these links to narrow the field of search.
5. Example: If you are looking for a regulation concerning first aid you might select the "30 CFR" link and click on it. (All of the links will work the same.)
6. A data entry box appears. Type in your inquiry.
Example: You want the regulation on required first aid training. You may type in the regulation number "56.18010" or you may just type in "First Aid". The search engine then gives you the results of its search. The more detailed your inquiry, the more likely you are to get the information you seek. For the example above, 31 responses were received to the words "First Aid" (a very general inquiry) and the number "56.18010" (a very specific inquiry) received 2 responses, one of which was the actual regulation.
7. Each of the listed responses has a link directly to the regulation or document. Click on the highlighted text of the link you want and the regulation or document appears. Most MSHA documents are cross-linked. This means that highlighted links within the document can connect you to related documents.

For a general search for information (something like browsing your local newsstand), site navigation buttons on each page will link you to various areas of MSHA's web site. Just click on the subject you want to explore.

Other Training Material Resources

State Grants Programs: Names, addresses, telephone numbers, and e-mail addresses for the State Grants Program contact person(s) in your state can be found at:

<http://www.msha.gov/TRAINING/STATES/STATES.HTM>

These programs can provide mine safety-related assistance to mines, including:

- Mine Safety Training.
- Safety videotapes for lending to mines.
- Mine Safety Training Aids such as Lesson Plans and Learning Games

Michigan and several other states have Internet sites with training materials available for download. Michigan's Internet address is www.mine-safety.mtu.edu or contact Michigan's mine safety training program at (906) 487-2453.

The National Mine Health and Safety Academy has courses available and a large catalog of mine-safety related materials. To obtain this catalog and other materials, write to:

National Mine Health and Safety Academy
 1301 Airport Road
 Beaver, WV 25813-9426
 Phone: 304/256-3257

Some Safety resources on the Internet

Name	Internet Address (URL)
American Society of Safety Engineers	www.asse.org
DieselNet Diesel Emissions Online	www.dieselnet.com
District Mining Operations	www.dep.state.pa.us/dep/deputate/minres/Districts/homepage.htm
Holmes Safety Association	http://www.msha.gov/programs/hsapubs/hsapubs.htm
Michigan Mine Safety & Health Training Program	www.mine-safety.mtu.edu
MineNet	www.microserve.net/~doug/index.html
MSHA Site	www.msha.gov
Natl. Inst. of Occup. Safety & Health (NIOSH)	www.cdc.gov/niosh/homepage.html
NMAframes	www.nma.org/
OSHA Fact Sheets	www.osha-slc.gov/OshDoc/Fact_toc/Fact_toc_by_subject.html
OSHA Publications	www.osha-slc.gov/OshDoc/Additional.html
OSHA Technical Links	www.osha-slc.gov/SLTC/safety.html
Pennsylvania Bureau of Deep Mine Safety	www.dep.state.pa.us/dep/deputate/minres/dms/dms.htm
Pittsburgh Spokane Research Laboratories	www.cc.gov/nisoh/pit/welcome.html
United Mine Workers of America (UMWA)	www.access.digex.net/~miner/index.html
United States Mine Rescue Association	usmra.com
WVU CEMR - Mining Extension Service	www.wvu.edu/~minext/

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5. Outside Contractors / Customers - Responsibilities

This chapter will describe Mine Owner and Supervisor dealings with Contractors and Customers.

Outside Contractors

(30 CFR Part 45.2 - General; 30 CFR Part 46.12 & Part 48.(all) - Training)

The mine operator's overall compliance responsibility includes assuring each independent contractor's compliance with the Act and with MSHA's standards and regulations. Independent contractors are responsible for compliance with applicable provisions of the Act, standards and regulations.

- 1) Mine owners must have the following information about it's contractors on file and available at the mine for MSHA:
 - a) Identification.
 - b) Description of work.
 - c) MSHA ID number. (If the contractor has one.)
 - d) Address & Phone Number of record.
- 2) Mine owners share responsibility for contractor's safety and health and can be cited for violations committed by the contractor.
- 3) Mine owners must hazard train contractors.
- 4) Contractors must be trained under appropriate part of 30 CFR (Part 48 or 46)

Customers

MSHA Program Policy Manual Vol. IV (G-12) "Operator Responsibility over Customer Vehicles" states that it is the responsibility of the operator of a mine to enforce mandatory safety standards on all vehicles entering the mine property. Suitable alternatives for backup alarms on customer trucks include the following:

1. Traffic patterns established to eliminate the need to backup.
2. Operator personnel can act as observers where trucks are required to backup.

It is the responsibility of the operator to see that all persons in hard hat areas wear hard hats or:

1. Rules can be established that while loading, the customer truck drivers must stay in their truck cabs if the cabs are protected by canopies; or
2. If the customer truck drivers must get out of their cabs, designated safe areas must be provided.

MSHA Requirements for Independent Contractors

(Information abridged from National Stone Association Pamphlet)

MSHA defines an "**independent contractor**" as "any person, partnership, corporation, firm, association or other organization that contracts to perform services or construction at a mine." By contrast, a production operator means "any owner, lessee, or other person who operates, controls or supervises a coal or other mine."

Independent contractors are specifically regulated under 30 CFR Part 45. Depending on the type and duration of the work performed at the mine site, independent contractors may also be subject to the training requirements of 30 CFR Parts 46 & 48.

MSHA ID Numbers for Independent Contractors

Any independent contractor may call their local MSHA field Office to obtain a permanent MSHA ID number by providing MSHA with its identification information, and the estimated annual hours worked on mine property in the previous calendar year. Except as described below, MSHA does not require independent contractors to obtain MSHA ID numbers, but MSHA holds independent contractors responsible for violations committed by their employees. Furthermore, contractors falling under 30 CFR, Part 46 training requirements will need an MSHA ID number to put on their training plans.

Unless cited for a violation, only independent contractors performing the following types of services or construction work at mine sites are required to have MSHA ID numbers.

- Mine development, including shaft and slope facilities.
- Construction or reconstruction of mine facilities, including building or rebuilding preparation plants and mining equipment, and building additions to existing facilities.
- Demolition of mine facilities
- Construction of dams
- Excavating or earth moving activities involving mobile equipment
- Equipment installation, such as crushers and mills
- Equipment service or repair of equipment on mine property for a period exceeding five consecutive days at a particular mine site
- Material handling within mine property, including haulage of coal, ore, refuse, etc., unless for the sole purpose of direct removal from or delivery to mine property.
- Drilling and blasting

MSHA does not require that independent contractors to have identification numbers as a precondition to bidding for work contracts on mine property. If an independent contractor is a successful bidder and the work encompasses the nine categories listed above, the contractor must obtain an ID number.

MSHA ID numbers have no effect on the compliance responsibility of either the mine operator or the independent contractor. Mine operators have responsibility for all activities at the mine, regardless of whether the independent contractor has an MSHA ID number. The mine operator's responsibility includes assuring that each independent contractor complies with the mine act and all MSHA standards and regulations. Independent contractors are also separately held responsible for compliance with the Mine Act, standards and regulations, regardless of whether or not they have an MSHA ID number.

Independent Contractor Training

Under the Mine Act, the definition of a '**miner**' for training purposes includes: **any person who is engaged in the extraction and production process, or who is regularly exposed to mine hazards, or who is a maintenance or service worker contracted by the operator to work at the mine for frequent or extended periods.** Such workers are required to receive training as outlined in 30 CFR Parts 46 or 48 depending upon which type of mine they are serving. Short term workers, such as drillers and blasters, who are engaged in extraction and production processes, may substitute hazard training for the full comprehensive training at a mine site only if they have already received their timely comprehensive training (such as newly employed experienced miner or annual refresher training).

The mine act is silent on what constitutes "frequent or extended periods" but an MSHA policy statement categorizes "regular exposure" to a mine hazard as either a "pattern of recurring exposure" or extended exposure of five consecutive workdays. Workers who are not regularly exposed to mine hazards must receive hazard training. Training must be provided prior to performance of work on mine property for all independent contractors and their employees who are defined as miners under the Act. See Chapter 3 for descriptions of the various types of training.

Reporting Requirements for Independent Contractors.

Independent contractors who are performing the types of services or construction work indicated above, must report accidents, injuries and illnesses under 30 CFR Part 50.20. In addition, independent contractors must maintain records of such reports, and file quarterly employment reports. Without regard to the type of work being performed, all independent contractors are required to comply with the notification, investigation and preservation of evidence requirements of Parts 50.10, 50.11 and 50.12, and they are required to comply with Part 50.41 regarding verification of reports.

Independent contractors must submit separate 7000-2 Production Report forms for work performed at metal and nonmetal mines and at coal mines. Separate information must also be provided for surface and underground mines. The independent contractor and the production operator may coordinate the submission of their quarterly reports, so that the production operator actually submits the report covering the contractor. However, a separate 7000-2 form must be filed for each independent contractor. If the production operator fails to submit a separate quarterly employment report covering the independent contractor, that contractor may be cited for a violation of its compliance responsibility.

MSHA regulatory information is available at the sources listed in Chapters 2 and 4 of this manual.

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6. Required Record Keeping & Sample Forms

This chapter will describe the records that need to be kept. Some required records have no standardized MSHA form. Mines can make up their own forms. Below is a list of regulations that refer to the records that a mine is required to keep. This list was compiled from the MSHA Inspectors manual. For details, including when the record can be disposed of, see the regulation.

Standards requiring examinations or inspections

<u>Subject</u>	<u>Part 56 Regulation</u>
Blacksmith shops	56.45320
Blasting - Handling misfires	56.63110
Blasting - Loading & Blasting	56.63060
Boilers	56.13030
Compressed air receivers - inspection	56.13015*
Drill area inspection	56.70030
Examination - Safety defects, examination, correction and records	56.14100*
Examination and tests at beginning of shift	56.19129
Examination of working places	56.18002*
Examinations	56.19023
Fire Fighting Equipment	56.42010*
Ground - Unstable	56.93040
Ground Conditions	56.34010
Hoist conveyance connections	56.19131
Inspection and maintenance	56.10002
Procedures for inspection, testing and maintenance	56.19120
Safety Catches	56.19132
Shaft inspection and repair	56.19109
Shaft inspection and repair	56.19133
Sheaves	56.19134

* Described under Records & Examinations (following page)

Standards requiring plan, certification, record, or training

<u>Subject</u>	<u>Requirement</u>	<u>Regulation</u>
Commencement or closing of operation	Record	56.1000
Compressed Air Receiver Inspection	Record	56.13015
Continuity and Resistance	Record	56.12028*
Examination of work places	Record	56.18002*
Fire fighting Equipment	Certification	56.42010*
First Aid	Train	56.18010
Hazard Communication	Plan/Train	Part 47
Hoist Person - Medical Certificate	Record	56.19057
Independent Contractors	Record	Part 45 *
Notification of Legal Identity	Record	Part 41 *
Noise Monitoring - Audiometric Testing	Rec. & Train	Part 62
Pressure vessels, fired (Boilers)	Record	56.13030
Representatives of Miners	Record	Part 40
Roof (Rock) Bolt Tests	Certification	56.32030
Self-Propelled Equipment	Record	56.14100
Shafts and Hoisting Equipment	Record	56.19121
Subpart C 50.20 Reporting Accidents, Injuries, Illnesses	Record	Part 50 *
Subpart D 50.30 Quarterly Employment	Record	Part 50 *
Training - Surface 'exempt' operations	Plan & Record	Part 46
Training - Surface 'non-exempt' operations	Plan & Record	Part 48

* Described under Records & Examinations (below)

Records and Examinations Required by 30 CFR

Some of the Parts of 30 CFR requiring records and examinations are listed below along with the Standard's requirements.

50.20 - Accident, Injury and Illness Report - MSHA Report Form 7000-1 – Requires preparation and submission.

56.12028 - Electrical continuity and resistance of grounding systems - record of testing and results of most recent test are required. Test must be done immediately after installation, repair, and modification; and annually.

56.42010 - Hydrostatic testing - Certifications of hydrostatic testing shall be retained until the fire extinguisher is re-tested or permanently removed from service. Other certifications shall be retained for one year.

41.11 to 41.30 - Identity (Legal) of operator - MSHA must be notified in writing of legal identity of operator or any changes within 30 days using form 2000-7 "legal identity report".

45.4 - Independent contractor list - Requires independent contractor to provide the production-operator certain written information including identification, description of work, MSHA ID number, address of record etc. The production operator must have this information available at the mine for MSHA.

56.14100 (a) - Inspection of self-propelled mobile equipment for defects - records of inspections and certifications. - Equipment must be examined for defects by the equipment operator each shift before operating.

56.18002(a) - Inspection of working places - Inspection of working places once each shift by competent person. (b) - Records of examination - Requires record of examination to be kept for at least a year. Part (c) of this regulation requires immediate withdrawal of persons if there is an imminent danger found.

56.1000 - Notice of commencement or closing - MSHA must be notified in writing of either commencement or closing of mine.

56.13015(b) - Pressure vessels - records of inspections of compressed air receivers and other unfired pressure vessels - requires that records of inspections made by inspectors holding a valid National Board Commission be retained by the mine operator in accordance with the requirements of the National Board Inspection Code (progressive record - no limit on retention time) and be made available to MSHA. The record-keeping requirement may be satisfied by an operator's written statement that the inspections have been made in accordance with the incorporated code. MSHA will accept such a certifying statement annually, without regard to format, if it is made available at the time of inspection.

50.30 - Quarterly Employment and Coal Production Report - MSHA Form 7000-2-Requires preparation and submission.

56.12028 - Testing for continuity and resistance of grounding systems - Test these systems immediately after installation, repair, and modification; and annually. Requires available record of the resistance measured during the most recent tests.

56.4201 (a) (1,2,3) - Fire extinguisher inspection - records required - (monthly check for full charge and operability) and annual maintenance checks), also must meet hydrostatic testing schedule in standard.

56.4201(a)(4) - Other fire fighting system quarterly inspection and annual use tests.

56.4201(a)(5) - Fire suppression system annual inspection based on the manufacturer's specifications to determine that system remains functional. Surface fire suppression systems are exempt from these inspection requirements if the systems are used solely for the protection of property and a fire would affect no persons.

56.4201(b) - Records of inspections and certifications of hydrostatic testing are required for fire extinguishers of the pressurized type.

56.16004 - Hazardous Materials - Hazardous materials shall be stored in containers of a type approved for such use by recognized agencies; such containers shall be labeled appropriately.

56.20012 - Toxic materials used in conjunction with or discarded from mining or milling of a product shall be plainly marked or labeled so as to positively identify the nature of the hazard and the protective action required.

Explosives permits that might be required: Check local, State, DOT and ATF for requirements

Sample Daily Self-Inspection Checklist

The following is a sample of a Daily Self-Inspection Checklist that can be modified for your company. This checklist is arranged to address the regulatory categories from 30 CFR Part 56. However, it is not intended to cover all of the regulatory requirements that may apply to your operation. When you make up your own checklists for specific areas of the mine, you may discard or expand some of the categories.

SAMPLE DAILY ON-SHIFT INSPECTION CHECKLIST

Air Quality and Physical Agents - Section 5000/Subpart D - Look for the following:

- that sand with 1% or greater silica content is not being used for abrasive blasting
- that no employee is exposed to noise levels in excess of permissible limits. (If one needs to shout in order to be heard by fellow workers at 3 feet or less, hearing protection is needed.)

Aerial Tramways - Section 10000/Subpart I - Look for the following:

- that falling-object protection is provided where tramways pass over walkways and roads
- that no one rides in loaded buckets

Compressed Air and Boilers - Section 13000/Subpart L - Look for the following:

- that at no time will compressed air be directed towards any person
- that safety chains are provided at connections of high-pressure hoses to machines where necessary
- that all pressure vessels are equipped with the appropriate working gauges per code

Drilling and Rotary Jet Piercing - Section 7000/Subpart F - Look for the following:

- that drill area is inspected for hazards (i.e. ground hazards)
- that all tools are being secured before moving drill
- that there is proper footing for those operating drill
- that no one is smoking in the vicinity of oxygen storage and supply lines

Electricity - Section 12000/Subpart K - Look for the following:

- that overload circuit protection is provided for all circuits (proper fuses in the fuse box)
- that all electrical conductors are in good condition and where exposed to mechanical damage have protection
- that mobile equipment is not running over power conductors
- that all distribution boxes are labeled to show each device control
- that all high-potential electrical conductors are protected
- that power switches are labeled if what they control is not obvious by their location
- that danger signs are posted at all major electrical installations
- that all electrical covers plates are in place
- that all transformers are enclosed or guarded appropriately

Explosives - Section 6000/Subpart E - Look for the following

- that detonators are not stored with other explosive materials
- that 25 feet of clear area surrounds storage magazine
- that stock is rotated in a manner that uses oldest materials first

- ___ that all explosives are stored in approved magazines
- ___ that approved day boxes (powder chests) are provided when necessary
- ___ that proper transportation of explosive material is provided to blast site
- ___ that all vehicles used to transport explosives meet codes such as pre-loading vehicle inspection, appropriate signs, barriers & separators, passenger protection, fire extinguishers and non-sparking construction.
- ___ that all trainees work under the direct supervision of a qualified blaster
- ___ that all explosives and blasting agents are separated until loading begins
- ___ that blast site security is provided
- ___ that non-sparking tools are provided to open containers of explosives
- ___ that all permanent blasting lines are properly supported, insulated and kept in good repair
- ___ that no open flame is permitted within 50 feet of explosives

Fire Prevention and Control - Section 4000/Subpart C - Look for the following:

- ___ that all abandoned electric circuits are de-energized and isolated
- ___ that "no smoking" and other warning signs are posted properly
- ___ that all spontaneously combustible waste is placed in approved covered metal containers
- ___ that all electric substations have a clear 25 feet perimeter around them.
- ___ that early stage fire-fighting equipment (extinguishers, etc.) is strategically located onsite.
- ___ that inspected fire extinguishers are provided on mobile equipment where needed
- ___ that all combustible liquid storage tanks are firmly mounted or fixed
- ___ that all combustible liquids are properly stored in approved cans
- ___ that all combustible liquid storage buildings or rooms are properly vented
- ___ that all oxygen cylinders are properly stored
- ___ that all battery-charging areas are properly vented

Ground Control - Section 3000/Subpart B -- Look for the following:

- ___ that dangerous overhanging banks of material are collapsed as necessary
- ___ that loose material is removed 10 feet back from top of pit/quarry
- ___ that warning signs have been posted around hazardous areas
- ___ that appropriate scaling tools are provided where needed
- ___ that ground conditions are examined by a competent person on a daily basis
- ___ that appropriate measures are being taken to prevent hazards to persons during secondary breakage of materials from highwall, banks, and dangerous overhangs
- ___ that no one is working between equipment or machinery and the highwall, bank or stockpile

Illumination - Section 17000/Subpart P - Look for the following:

- ___ that adequate illumination is provided for all working areas

Loading, Hauling and Dumping - Section 9000/Subpart H - Look for the following:

- ___ that rules and signs (visible and in good repair) are provided for governing the safe movement of mobile equipment
- ___ that railroad crossing signs are posted, visible and in good repair
- ___ that no one is being transported in buckets of mobile equipment or otherwise transported as a passenger on non-passenger equipment
- ___ that proper loading and unloading procedures are being used
- ___ that berms or guardrails are in good repair on banks of elevated roadways

- ___ that berms or bumper blocks are in good repair at all dump points
- ___ that dust control is provided and in working condition at all muck points, transfer points, crushers, and haul roads where there is impaired visibility

Machinery and Equipment - Section 14000/Subpart M - Look for the following:

- ___ that all wheel rims are being placed in an approved cage or restraining device while being repaired
- ___ that all equipment is being blocked against hazardous motion during repair
- ___ that all moving machine parts that could cause a hazard are guarded
- ___ that all conveyor belts near travelways are guarded per standard
- ___ that all guards are withstanding the normal operating stresses
- ___ that brakes or backstops are provided on all inclined conveyors
- ___ that a manual master quick-close type air valve is provided on all pneumatic- powered equipment
- ___ that all grinders are guarded per standard
- ___ that hand-held tools have not been modified to circumvent safety features and guards.
- ___ that rollover protection is provided on mobile equipment and in good condition
- ___ that seat belts in all haulage vehicles are provided per standard and are being used
- ___ that horns and back-up alarms are provided and working per standard
- ___ that working audible start-up warnings are provided on crushers, conveyors and self-propelled equipment

Materials Storage And Handling - Section 16000/Subpart O - Look for the following:

- ___ that materials are properly stored and handled
- ___ that mechanical devices are provided for material handling to reduce expose to hazards
- ___ that approved containers are provided for the storage of hazardous materials
- ___ that all compressed and liquid gas cylinders are secured
- ___ that crane load rigging is in good repair

Miscellaneous - Section 20000/Subpart S - Look for the following:

- ___ that potable water is provided for all active working places
- ___ that proper housekeeping is practiced for all workplaces
- ___ that toilet facilities are provided and accessible to employees
- ___ that warning signals are provided for all hazards not immediately obvious
- ___ that all toxic materials are labeled to identify hazards
- ___ that waste receptacles with covers are provided and maintained in a sanitary condition

Personnel Hoisting - Section 19000/Subpart R - Look for the following:

- ___ that all hoists have rated capacities clearly identified and consistent with their loads
- ___ that emergency braking for hoists is functional
- ___ that wire rope is in good repair and if not, removed from service as per standard

Personal Protection - Section 15000/Subpart N - Look for the following:

- ___ that adequate first aid materials are provided to all working areas
- ___ that appropriate protective head, eye, foot, and clothing are provided where required and being used
- ___ that safety harnesses and lifelines, flotation jackets and belts are provided and being used where needed
- ___ that appropriate clothing, face-shield, and goggles are worn during welding operations.

Safety Programs - Section 18000/Subpart Q - Look for the following:

- that all emergency numbers are posted at appropriate telephones
- that no employee is working alone where he or she cannot be seen or heard

Travelways - Section 11000/Subpart J - Look for the following:

- that safe means of access is provided to all working places
- that all walkways and ramps are maintained in good repair (including proper handrails & toeboards)
- that all ladders (portable & fixed) are in good condition
- that railings or barriers are provided for openings on or near travelways

Training records for Part 46 Training

There are no official forms provided by MSHA for recording Part 46 training, although the official 5000-23 form discussed further on in this chapter is acceptable. The forms presented below are examples of training record forms that may be easier to use and also meet the Standard's requirements. Feel free to copy these forms.

New Miner Training Record/Certificate

Miner's Full Name (Print) _____

Mine or Contractor Name _____ ID# _____

Subject 30 CFR Part 46.5	Course Length	Date	Competent Person	Location (Name & Address if Institution)	Miner's Initials
<i>The miner received no less than 4 hours training in the following, before beginning work:</i>					
(b)(1) Introduction to work environment, mine tour, mining method/operation					
(b)(2) Instruction on recognition and avoidance of electrical and other hazards					
(b)(3) Emergency procedures, escape, and firefighting					
(b)(4) Health and safety aspects of tasks assigned					
(b)(5) Instruction on statutory rights of miners and their representatives					
(b)(6) Authority & responsibility of supervisors and miners' representatives					
(b)(7) Introduction to your rules and procedures for reporting hazards					
<i>No later than 60 days:</i>					
(c)(1) Self-rescue, respiratory devices, if used					
(c)(2) First aid					
<i>No later than 90 days (balance of 24 hours including the following subjects):</i>					

False certification is punishable under section 110 (a) and (f) of the Federal Mine Safety and Health Act
I certify that the above training has been completed

(Signature of person responsible for health and safety training) (Date)

Newly-Hired Experienced Miner Training Record/Certificate

Miner's Full Name (Print) _____

Mine or Contractor Name _____ ID# _____

Subject 30 CFR Part 46.6	Course Length	Date	Competent Person	Location (Name & Address if Institution)	Miner's Initials
<i>The miner has received the following training before beginning work:</i>					
(b)(1) Introduction to work environment, mine tour, mining method/operation					
(b)(2) Instruction on recognition and avoidance of electrical and other hazards					
(b)(3) Emergency procedures, escape, and firefighting					
(b)(4) Health and safety aspects of tasks assigned					
(b)(5) Instruction on statutory rights of miners and their representatives					
(b)(6) Authority & responsibility of supervisors and miners' representatives					
(b)(7) Introduction to your rules and procedures for reporting hazards					
<i>No later than 60 days:</i>					
(c) Self-rescue, respiratory devices, if used					

False certification is punishable under section 110 (a) and (f) of the Federal Mine Safety and Health Act
I certify that the above training has been completed

(Signature of person responsible for health and safety training)

(Date)

Site-Specific Hazard Awareness Training Record/Certificate

Miner's Full Name (Print) _____

Mine or Contractor Name _____ ID# _____

Mine Site and Area for Which Training is Provided

Location: _____

Length of Training: _____

Date Training Provided: _____

Competent Person Providing the Training: _____

Training Checklist

- Hazard Recognition and Avoidance
- Emergency Evacuation Plans
- Traffic Patterns and Control
- Electrical Hazards
- Information or instructions on hazards persons exposed to & applicable emergency procedures.
- Powered Haulage Hazards
- Unique Geologic and Environmental Conditions.
- Restricted Areas
- Warning and Evacuation Signals
- Other special safety procedures

Miner's Initials: _____

False certification is punishable under section 110 (a) and (f) of the Federal Mine Safety and Health Act
I certify that the above training has been completed

(Signature of person responsible for health and safety training)

(Date)

MSHA Forms

Form 5000-23 Certificate of Training

This form is required for Part 48 Training and optional for Part 46 Training

For regulatory information on this form, please see CFR 48.29 - Records of Training. Also see MSHA Program Policy Manual Vol. 3.

- (a) The operator shall record and certify on form 5000-23 that the miner has received the specified training. A copy is given to the miner. The training certificates shall be available for inspection by MSHA, the miners, the miner's representative, and State inspection agencies. When a miner leaves the operator's employ, the miner shall be entitled to a copy of his training certificates.
- (b) False certification that training was given shall be punishable under section 110(a) and (f) of the Act (includes very large fines and possible prison term).
- (c) Copies of training certificates for currently employed miners shall be kept at the mine-site for 2 years or for 60 days after termination of employment.

Records of Training - Approved Forms

All Part 48 training must be properly recorded by the operator on an MSHA Form 5000-23 (training certificate), or on an MSHA-approved alternate form. Part 46 training may also be recorded on a Form 5000-23, but it is not a requirement.

Record-Keeping Requirements

Mine operators who must train using Part 48 training requirements are also required to give a copy of the form 5000-23, or alternate, to the miner upon completion of each training program. A "training program" is any miner training (i.e., new miner, newly employed experienced miner, task, annual refresher training or hazard training). Please note that mining companies may sometimes have quality control programs that track task training using other forms. Part 48 states that a form 5000-23 must also be filled out for task training. The training certificate, MSHA Form 5000-23, has been revised so that all training completed by a miner during the 12-month cycle may be recorded on one form.

Instructions for filling in an MSHA form 5000-23:

Where the copies go:

- Copy 1 (white) - Employer's Personnel Record
- Copy 2 (pink) - Employee's Record Copy
- Copy 3 (yellow) - Employee's Separation Copy
- Copy 4 (green) - Record Keeping

The following is a description of what information goes in each item of the 5000-23.

Serial Number (for operator's use)

This is an optional. There is no Federal requirement to use this field.

Item 1. Print Full Name of Person Trained (first, middle, last)

Enter the person's name that has received the training.

Item 2. Check Type of Approved Training Received

Check the appropriate box to indicate what training was given. When New Task is checked, additional space is provided to record 1-8 task training events. This space is used to identify each task and to allow for the initials of the instructor(s) and the student (miner), as needed.

Item 3. Check Type of Operation and Related Industry

(1) Mark the box for the appropriate commodity and location of mine

Item 4. Date Training Requirements Completed

Only entering a date indicates that the training marked in item 2 is completed. Placing a check in the box to the right of the date entry indicates that the training for the program(s) marked in item 2 is not complete. The appropriate boxes in item 5 must then be checked to indicate what subjects were completed.

Item 5. Check Subjects Completed (use only for partially completed training)

This is generally used for conducting annual refresher training in increments or for training, which does not cover mine specific courses that are required to be taken at the mine site.

Item 6. Signature of person responsible for training

The person signing the form in item 6 is representing that the miner has received the indicated training. Anyone falsifying the 5000-23 form is criminally. Generally, the person signing the form is the mine operator or a person acting on behalf of the operator.

Note: Part 46 Training. If this form is used by the company as the only record for Part 46 training, the signature in this box must be that of the person designated by the operator as the person responsible for Safety & Health at the mine.

Item 7. Mine Name, ID, & Location of Training (if institution, give name & address)

List the mine name, mine (or contractor) ID, and location where training was conducted

Item 8. Date and (signature of person trained)

The person trained has the option of signing and dating the form, acknowledging that the training indicated on the form was received.

MSHA Form 5000-23 (Sample)

Certificate of Training

U.S. Department of Labor
Mine Safety and Health Administration



Approved OMB Number 1219-0070, Expires September 30, 2001.
This certificate is required under Public Law 91-173 as amended by Public Law 95-164. Failure to comply may result in penalties and other sanctions as provided by sections 108 and 110, Public Law 91-173 as amended by Public Law 95-164.

<p>➔ Issue Certificate Immediately Upon Completion of Training</p>	<p>Serial Number (for operator's use)</p>
---	---

1. Print Full Name of Person Trained (first, middle, last)

2. Check Type of Approved Training Received:

- | | | |
|---|--|--|
| <input type="checkbox"/> Annual Refresher | <input type="checkbox"/> Experienced Miner | <input type="checkbox"/> Hazard Training |
| <input type="checkbox"/> New Task (specify below) | <input type="checkbox"/> Newly Employed, Inexperienced Miner | <input type="checkbox"/> Other (specify) |

Date	Task	Initials		Date	Task	Initials	
		Instr	Studt			Instr	Studt

3. Check Type of Operation and Related Industry:

- | | | | |
|-------------------------------------|---------------------------------------|--------------------------------------|--|
| A. <input type="checkbox"/> Surface | <input type="checkbox"/> Construction | <input type="checkbox"/> Underground | <input type="checkbox"/> Shaft & Slope |
| B. <input type="checkbox"/> Coal | <input type="checkbox"/> Metal | <input type="checkbox"/> Nonmetal | |

4. Date Training Requirements Completed

- Check if not completed and go to item 5, below.

➔ If completed, go to item 6, below.

5. Check Subjects Completed (use only for partially completed training):

- | | | |
|--|--|--|
| <input type="checkbox"/> Introduction to Work Environment | <input type="checkbox"/> Roof/Ground Control & Ventilation | <input type="checkbox"/> Health |
| <input type="checkbox"/> Hazard Recognition | <input type="checkbox"/> Mine Map; Escapeways; Emergency Evacuation; Barricading | <input type="checkbox"/> Electrical Hazards |
| <input type="checkbox"/> Emergency Medical Procedures | <input type="checkbox"/> Cleanup; Rock Dusting | <input type="checkbox"/> First Aid |
| <input type="checkbox"/> H&S Aspects of Tasks Assigned | <input type="checkbox"/> Mandatory Health & Safety Standards | <input type="checkbox"/> Mine Gases |
| <input type="checkbox"/> Statutory Rights of Miners | <input type="checkbox"/> Authority & Responsibility of Supervisors & Miners' Representatives | <input type="checkbox"/> Explosives |
| <input type="checkbox"/> Self-Rescue & Respiratory Devices | | <input type="checkbox"/> Prevention of Accidents |
| <input type="checkbox"/> Transport & Communication Systems | | <input type="checkbox"/> Other (specify) |

6. False certification is punishable under section 110 (a) and (f) of the Federal Mine Safety & Health Act (P. L. 91-173 as amended by P. L. 95-164).

I certify that the above training has been completed
(signature of person responsible for training)

7. Mine Name, ID, & Location of Training (if institution, give name & address)

8. Date

I verify that I have completed the above training
(signature of person trained)

Form 2000-7 Legal Identity Report

For Full regulations see 30 CFR PART 41-Notification of Legal Identity

Also see MSHA Program Policy Manual Vol. 3

Who definitely needs a legal Identity Number?

Any owner, lessee, or other person who operates, controls, or supervises a coal or other mine

Who may need a legal Identity Number?

Any designated independent contractor performing services or construction at such mine. Independent Contractors can contact their local MSHA field office about whether they need a legal identification number.

Special Notes about Legal ID numbers:

For independent contractors: Each independent contractor is assigned only one identification number to be used on any and all job sites.

For Portable Operations: When a mine operator has a portable plant that operates in several different locations, the mine identification number is to be assigned to the plant only and not to the pit. Metal and nonmetal operators of portable plants should be reminded that 30 CFR requires notification to MSHA when a move is made from one pit to another.

Form 2000-7 - Legal Identity Report (Sample - Page 1)

Legal Identity Report

U.S. Department of Labor
 Mine Safety and Health Administration



This report is required by law (30 C.F.R. 41). Failure to report an result in assessment of a civil penalty. Knowingly making a false statement an result in criminal prosecution under § 110 of the Federal Mine Safety and Health Act of 1977. This report should be prepared only by an official with full knowledge of ownership information. This report must be signed, where indicated by arrow, to be valid. Type or print in ink only.

Form Approved: OMB Number 1219-0008: Approval Expires December 31 1998.

5 CFR 1320.21- Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Information Management, Department of Labor, Room N-1301, 200 Constitution Avenue, N-W.; Washington, D.C. 20210; and to the Office of Management and Budget, Paperwork Reduction Project 1219-0008. Washington, D.C. 20503.

Note: If more space is required in any section below, use a separate sheet.

0 Initial Notice	0 Update Notice	Effective Date of Changes			
1. Federal Mine Identification Number (New ID required for new operation only.)		2. Mine Name (to be used for all update notices)		3. Directions to the Mine (mileage direction from nearest town, city, and landmark)	
4. Mine Location Address		5. City	6. County	7. State	8. Zip Code

9. Official Business Name of Operator		10. Telephone Number in Event of an Emergency	11. Commodity (type of product & operation-surface, underground or facility)		
---------------------------------------	--	---	--	--	--

Person at Mine in Charge of Health and Safety (Superintendent or Principal Officer)

12. Name and Title		13. Address			
--------------------	--	-------------	--	--	--

Person with Overall Responsibility for a Health and Safety Program at All of the Operator's Mines, if the Operator is Not Directly Involved in the Daily Operation of the Mine. (Safety Director)

14. Name and Title		15. Address			
--------------------	--	-------------	--	--	--

Federal Mine Identification Numbers of All Other Mines in which the Sole Proprietor, Partnership, Corporation or Other Organization has a 20% or Greater Ownership Interest.

16. ID Numbers					
----------------	--	--	--	--	--

Federal Mine Identification Numbers of All Other Mines in which Any Partner, Corporate Officer, Other Organization Official or Member has a 20% or Greater Ownership Interest [not applicable to sole proprietorship].

17. ID Numbers					
----------------	--	--	--	--	--

Address of Records and Telephone Number [Service of documents upon the operator will be completed by mailing or personal service of the documents to this address. If P.O. Box or General Delivery is used for mailing address, a separate street address for personal service must be provided.]

18. Name of Person to Receive Official Mail or Service		Title	19. Telephone Number		
20. Street Address		21. City	22. State	23. Zip Code	
20a. Mail Address		21 (a). City	22a. State	23a. Zip Code	

24. Please Check the Appropriate Box and Complete the Applicable Section (check only one box)

I. Sole Proprietorship
 II. Partnership
 III. Corporation
 IV. Other

Section I-Sole Proprietorship

1. Trade Name of Company		2. Proprietor's Name and Address of Residence			
3. Proprietor's Principal Office Address (street)		4. City	5. State	6. Zip Code	

Form 2000-7 - Legal Identity Report (Sample - Page 2)

Section II- Partnership

1. Trade Name

2. Partnership Principal Office Address (street) 3. City 4. State 5. Zip Code

a. Name of Partner	b. Street Address	c. City	d. State	e. Zip Code

Section III-Corporation

1. Official Corporation Name(s) 2. State of Incorporation

3. Corporation Principal Office Address (street) 4. City 5. State 6. Zip Code

a. Names of Corporation Officers & Directors	b. Title	c. Street Address	d. City	e. State	f. Zip Code

7. Is Corporation a Subsidiary? 8. Name and Address of Parent Corporation

Yes No

If yes, give name and address of parent corporation.

Section IV-Other

1. Official Business Name of Organization 2. Type of Organization

3. Principal Office Address (street) 4. City 5. State 6. Zip Code

a. Names of Principal Organization Officials or Members	b. Title	c. Street Address	d. City	e. State	f. Zip Code

g. Names of Individuals-with Ownership Interests in Organization	h. Street Address	i. City	j. State	k. Zip Code

Signature and Title of Official Completing Form

Date Form Completed

Form 7000-1 Mine Accident, Injury and Illness Report

MSHA 30 CFR 50.20 - Preparation and submission of MSHA Report Form 7000-1--Mine Accident, Injury, and Illness Report. See also MSHA Program Policy Manual Vol. 3 and special booklet on how to fill out this report available from the Mine Safety and Health Academy (see addresses and phone numbers in Chapter 2.)

Special Notes on the Form 7000-1

Each Operator is required to have a supply of the Form 7000-1 on hand at their mine offices. An electronic copy (downloaded from MSHA's web site) is considered sufficient as long as hard copies are made and properly distributed when they need to be used.

Please Note:

The form 7000-1 is a four-part color-coded form. The Plain Paper version, gotten when the computer form is printed, is not color-coded. You must print out four copies and write the appropriate color on the top of each form. Handling procedures for the each of the pages is listed below:

Page 1: Mail this page to: The Office Of Injury And Employment Information, P.O. Box 25367, Denver, Colorado 80225. This needs to be a signed copy.

Page 2: First, write "yellow" on the top of the copy. Then, either mail it to your local MSHA district office or submit a facsimile to your local MSHA district office. (Please prepare fax copies with black ink and do not send a copy of the same form in the mail unless requested to do so.)

Page 3: First, write " pink " on the top of the copy. Then, either mail it to the Office Of Injury And Employment Information, P.O. box 25367, Denver, Colorado 80225 or submit a facsimile to the toll free number 1 888 231-5515. (Please prepare fax copies with black ink and do not send a copy of the same form in the mail unless requested to do so.)

Page 4: Retain this copy at the mine (or nearest mine office) for 5 years.

Form 7000-1 - Mine Accident, Injury and Illness Report (Sample)

Mine Accident, Injury and Illness Report
U.S. Department of Labor
 Mine Safety and Health Administration



Approved For Use Through 09/30/99 OMB Number 1219-0007

• Section A - Identification Data

MSHA ID Number	Contractor ID	Report Category	<input type="checkbox"/> Check here if report pertains to contractor
		<input type="checkbox"/> Metal/Nonmetal Mining	<input type="checkbox"/> Coal Mining
Mine Name		Company Name	

• Section B - Complete for Each Reportable Accident Immediately Reported to MSHA

1. Accident Code (circle applicable code - see instructions)	01 - Death	02 - Serious Injury	03 - Entrapment
04 - Inundation	05 - Gas or Dust Ignition	06 - Mine Fire	07 - Explosives
09 - Outburst	10 - Impounding Dam	11 - Hoisting	12 - Offsite injury

2. Name of Investigator	3. Date Investigation Started	4. Steps Taken to Prevent Recurrence of Accident						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Month</td> <td style="width: 33%;">Day</td> <td style="width: 33%;">Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year				
Month	Day	Year						

• Section C - Complete for Each Reportable Accident, Injury or Illness

5. Circle the Codes Which Best Describe Where Accident/Injury/Illness Occurred (see instructions)

(a) Surface Location:	02 Surface at Underground Mine	30 Mill, Preparation Plant, etc.	03 Strip/Open Pit Mine	04 Surface Auger Operation
	05 Culm Bank/Refuse Pile	06 Dredge Mining	12 Other Surface Mining	17 Independent Shops (with own MSHA ID)
(b) Underground Location:	01 Vertical Shaft	02 Slope/Inclined Shaft	03 Face	04 Intersection
			05 Underground	06 Other
(c) Underground Mining Method:	01 Longwall	02 Shortwall	03 Conventional Stopping	05 Continuous Mining
			06 Hand	07 Caving
			08 Other	

6. Date of Accident	7. Time of Accident <input type="checkbox"/> am	8. Time Shift Started <input type="checkbox"/> am						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Month</td> <td style="width: 33%;">Day</td> <td style="width: 33%;">Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year				<input type="checkbox"/> pm	<input type="checkbox"/> pm
Month	Day	Year						

9. Describe Fully the Conditions Contributing to the Accident/Injury/Illness, and Quantify the Damage or Impairment

10. Equipment Involved	Type	Manufacturer	Model Number	10 MAN
------------------------	------	--------------	--------------	-----------

11. Name of Witness to Accident/Injury/Illness	12. Number of Reportable Injuries or Illnesses Resulting from This Occurrence
--	---

13. Name of Injured/Ill Employee	14. Sex	15. Date of Birth						
	<input type="checkbox"/> Male <input type="checkbox"/> Female	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Month</td> <td style="width: 33%;">Day</td> <td style="width: 33%;">Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year			
Month	Day	Year						

16. Last Four Digits of Social Security Number	17. Regular Job Title	<input type="checkbox"/>	18. Check if this Injury/Illness resulted in death.	19. Check if Injury/Illness resulted in permanent disability (include amputation, loss of use, & permanent total disability).
				12 14 16 17 18 19

20. What Directly Inflicted Injury or Illness?	21. Nature of Injury or Illness

22. Part of Body Injured or Affected	23. Occupational Illness (circle applicable code - see instructions)	21 Occupational Skin Diseases
	22 Dust Diseases of the Lungs	23 Respiratory Conditions (toxic agents)
	24 Poisoning (toxic Materials)	25 Disorders (physical agents)
	26 Disorders (repeated trauma)	29 Other

24. Employee's Work Activity When Injury or Illness Occurred	Experience	Years	Weeks	<p><i>For Official Use Only</i></p> <hr/> Degree Accident Type Accident Class Scheduled Charge Keyword
	25. Experience in This Job Title			
	26. Experience at This Mine			
	27. Total Mining Experience			

• Section D - Return to Duty Information

<input type="checkbox"/> 28. Permanently Transferred or Terminated (if checked, complete items 29,30, &31)	29. Date Returned to Regular Job at Full Capacity (or item 28)	<i>Answer 30 & 31 when case is closed</i>							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Month</td> <td style="width: 33%;">Day</td> <td style="width: 33%;">Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year				30. Number of Days Away from Work (if none, enter 0)	31. Number of Days Restricted Work Activity (if none, enter 0)
Month	Day	Year							

Person Completing Form (name)	Title
-------------------------------	-------

Date This Report Prepared (month, Day, year)	Area Code and Telephone Number
--	--------------------------------

Form 7000-2 Quarterly Mine Employment and Coal Production Report

Who needs to File?

Each operator of a mine in which an individual worked during any day of a calendar quarter shall complete a MSHA Form 7000-2 in accordance with the instructions and criteria in 30 CFR Part 50.30-1. Submit the original to the Denver Safety and Health Technology Center, P.O. Box 25367, Denver Federal Center, Denver, Colo. 80225, within 15 days after the end of each calendar quarter. Production data is only needed for coal. See special directions below for reporting hours at surface mines.

Electronic Filing

You may electronically file at "<http://www.dol.gov/elaws/msha.htm>"

Printable on line forms can be found at "<http://www.msha.gov/FORMS/70002.HTM>"

Please Note: Questions about filing the Quarterly Mine Employment and Coal Production Report should be directed to the Office of Injury and Employment Information, Lakewood, Colorado, (303) 231-5449.

You may also use our Toll Free Fax # - 888-231-5515 to submit your completed forms.

Quarterly Mine Employment and Coal Production Report		U.S. Department of Labor Mine Safety and Health Administration	
OBM Control Number 1219-0006; Approval Expires September 30, 1999			
↓ READ	<p>This report is required by law (30 U.S.C. subsection 813; 30 C.F.R. Part 50). Failure to report may result in the issuance of a citation or order under 30 U.S.C. subsection 814 to an operator of a coal or other mine, the assessment of a civil penalty against an operator of a coal or other mine under 30 U.S.C. subsection 820(a), and the institution of a civil action under 30 U.S.C. subsection 818. An individual who knowingly makes a false statement in any report shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than 5 years, or both, under 30 U.S.C. subsection 820(f). Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick scheme, or device, a material fact, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined under 18 U. S. C. or imprisoned not more than five years, or both, under 18 U. S. C. subsection 1001.</p>		
↑ READ	INSTRUCTIONS	→	<p style="text-align: center;">Important: <u>(INSTRUCTIONS)</u></p> <p style="text-align: center;">This form must be completed and mailed or faxed <u>within 15 days</u> after the end of each calendar quarter.</p> <ol style="list-style-type: none"> 1. Fill out this form as completely as possible and return Copy 1 of this report to: MSHA PEIR - Office of Injury and Employment Information OR You may FAX Copy 1 to Fax # 1- 888 - 231 - 5515 P.O. BOX 25367 Denver, CO 80225-0367 2. If it is necessary to make any address changes, indicate correct information on this form. 3. When pre-addressed, this form is only for the operation with I. D. number as shown. Do not use for any other operation. 4. Sand and Gravel operators report employment data under code 03 or 06 as appropriate, except for data on office workers which should be reported under code 99. 5. All mine operators and independent contractors reporting as required by 30 C.F.R. Part 50, should show persons working and employee hours worked; those producing coal should also show production date. 6. Independent Contractors should complete quarterly only <u>one</u> form for activities at all coal locations, and one form for activities at metal and nonmetal locations. <p>The public reporting burden for this collection of information is estimated to average 34 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this estimated response time or any other aspect of this collection of information, including suggestions for reducing this burden, to Mine Safety and Health Administration, U.S. Department of Labor, Room 715, 4015 Wilson Boulevard, Arlington, VA 22203.</p> <p>Persons are not required to respond to this collection of information unless this form displays a currently valid OMB control number.</p> <p>MSHA Form 7000-2, July 97 (revised)</p>

Form 7000-2 - Quarterly Mine Production Report (Sample)

DOL - MSHA - PEIR - OIEI
 P.O. Box 25367
 Denver, Colorado 80225 - 0367

Date Report Completed
 Mo. Day Yr.

For Quarter Year

Mail Before

Quarterly Mine Employment and Coal Production Report
 (SEE INSTRUCTIONS ON REVERSE SIDE OF COPY 2)

1. Persons Working, Employee-Hours, and Coal Production		(3) Total employee hours worked during the quarter	(4) Production of clean coal during quarter, (short tons)
(1) Operation Sub Unit Code(s) previously reported:	(2) Average number of persons working during quarter		
Underground Mine			
01 Underground			
02 Surface Shops, Yards, etc.			
Surface Mine			
03 Strip, Open Pit, or Quarry			
04 Ager (Coal Mine Only)			
05 Cullm, Bank or Refuse Pile (Coal Mine Only)			
06 Dredge			
12 Other Surface Mining (Metal/Nonmetal Only)			
Independent Shops or Yards			
17 Mill Operations, Preparation Plants, or Breakers (include associated shops and yards) employees at the mine or plant working in an office			
30 Office (professional and clerical)			
99			

Check here if this report is being submitted by a contractor
 If any information below is incorrect, please enter correct information here:
 County: _____
 Operation Name: _____
 Operating Company Name and Mailing Address: _____

 County: _____
 MSHA ID Number _____ Contractor ID _____
 Operation Name _____
 Operating Company Name and Mailing Address _____

How many MSHA reportable injuries or illnesses did you have this quarter?
 Person to be contacted Name _____ Title _____
 Tel. No. (area code) _____

MSHA Form 7000-2, July 97, (revised)
 OMB Number 1219-0006, Approval Expires September 30, 1999

Copy 1 - Return to MSHA (Denver)

Contractor ID Requests

Reference: 30 CFR 45.23 & MSHA Program Policy Manual Vol. 3.

Who needs a Contractor ID?

Any Independent Contractor who works at a mine site may need one. Independent Contractors can contact their local MSHA field office about whether they need a legal identification number.

Requesting IDs

Any independent contractor that requests an identification number will receive one from MSHA. However, unless cited for a violation, only those independent contractors performing any of the nine types of services or construction listed below, are required by MSHA to have identification numbers:

- Mine development, including shaft and slope sinking;
- Construction or reconstruction of mine facilities; including building or rebuilding preparation plants and mining equipment, and building additions to existing facilities;
- Demolition of mine facilities;
- Construction of dams;
- Excavation or earthmoving activities involving mobile equipment;
- Equipment installation, such as crushers and mills;
- Equipment service or repair of equipment on mine property for a period exceeding five consecutive days at a particular mine;
- Material handling within mine property; including haulage of coal, ore, refuse, etc., unless for the sole purpose of direct removal from or delivery to mine property; and
- Drilling and blasting.

A phone call can be used to request a contractor ID. Contact the local MSHA district office.

Requests can be processed via the Internet as well. Go to <http://www.dol.gov/elaws/contractorid.htm> on your browser and follow the on line instructions.

7. Improving your Safety Program

Common-Sense Fundamentals That Will Improve Your Safety Performance

1. The proper foundation upon which good safety programs are built is genuine concern for the welfare of employees and their families. High costs resulting from accidents and safety violations provide additional incentive.
2. Open communication is essential to improved safety performance. Each employee must be at ease in communicating safety-related concerns without fear of reprisal or stigma. The best incentive for participation in the correction of safety-related problems is rewarding employees by timely action on their concerns. Even apparently frivolous concerns and unworkable suggestions must be considered carefully and responded to respectfully.
3. Blaming employees for accidents or injuries instills fear and distrust. This inhibits productive communication that is essential for accurately determining and correcting the causes of accidents and injuries. Blame for clear-cut criminal behavior is not included -- for example, if an employee comes to work drunk and runs over a fellow employee, criminal negligence can be established.
4. Avoid dependence on mass safety inspections to accomplish safety. Require instead statistical evidence that safety is built on. MSHA accident statistics may help initially in directing you to the areas of greatest concern, but gathering your own data is best.
5. If accident data are not available, investigate the motive for observed 'at-risk' behavior and adjust systems to compensate.
6. Find problems. Target your safety performance using data on accident and injury trends, (and near missies, when available.)
7. Efforts toward improving a company's overall safety should begin by focusing on the tasks that produce the highest numbers of serious accidents.
8. No safety management system is ever perfect and all require continual improvement. It is the responsibility of management with the help of employees to work on continual improvement.
9. Bottlenecks to correction of safety problems should be eliminated. One serious bottleneck is the number of persons in the chain of command who must approve corrective action. Simple statistics reveal that the more persons there are in this chain; the lower is the probability that corrective action will be taken. The effect is that employee incentive to participate in the improvement process is quashed.

10. Supervisors must become leaders, facilitators, coaches and counselors of the safety-improvement process. Proper attitudes must be instilled on each new employee's first day at work and these attitudes will only remain if the actions and words of managers and supervisors are consistent and continue to sincerely encourage safety suggestions and improvement.
11. Most accidents and injuries result from management system problems rather than from employee behavior. Employee behavior may be viewed as a system problem. For example, the employee isn't self-hired to perform a particular task, is not self-trained, nor does the employee set the tone about the importance of safety in the company. Management can be indirectly responsible for building most of the barriers to safe behavior. If the system has the potential for a serious accident, in time a serious accident is likely to occur.
12. Where safety is not considered a high priority concern, and safety training is neglected, supervisors and conscientious, productive, employees who want to please their supervisors are likely to be the ones injured.
13. Clearly written, step-by-step procedures that are safe should be adhered to by all performing daily work tasks that have associated dangers. These procedures should be followed until safer procedures have been established.
14. Solutions to safety-related problems must not be "cast in concrete". All solutions are subject to improvement, the need for which should be based on frequent reviews and charting of incidence records.
15. Remove any barriers that would prevent the hourly worker from working safely. Eliminate the need for making choices of Quality vs. Production vs. Safety. All are important and none will be optimized if the others are ignored. Supervisors must always be looking for barriers to safe employee behavior, including employee fears about taking action on safety concerns that might require the stopping of production, or other action that would incur the anger of management or fellow employees.
16. Zero accidents is not an unreasonable goal because no one wants to be injured or killed.
17. Competition between employees or employee groups destroys cooperation in achieving company-wide goals and leads to obstructive behavior to achieve individual goals.
18. The need for choosing between safety and productivity should not exist. The word "production" should not be used without the adjective "safe". Continual improvement in safety is profitable.

Surface Mine Safety Self-Audit Guide

What MSHA has been looking at, or "It is better to fix your own house, than leave it to the building inspectors."

This little saying illustrates the need for self-auditing. Not only does self-auditing lead to fewer citations from MSHA, it can lower operating costs by reducing accidents and discovering process inefficiencies that are losing you money.

On the following pages is an audit based on the top 20 citations handed out to crushed stone operations. You may modify it as needed for your operation.

Additional audit sheets for various operations can be downloaded from the Michigan Mine Safety Training Program Internet site at: www.mine-safety.mtu.edu

MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

AUDIT BASED ON 20 TOP MSHA CITATIONS IN CRUSHED STONE OPERATIONS (84% of 1997 CITATIONS WERE FOR VIOLATIONS OF THESE REGULATIONS)									
DESCRIPTION	% of 1997 Cr. Stone Citation	Standard	QUESTION	YES	NO	N/A	CORRECTIVE ACTION	C/R/T*	Date Resolved
ACCESS, SAFE	7								
Handrails and Toeboards		56.11002	Are substantially constructed handrails provided and maintained on crossovers, elevated walkways, elevated ramps, and stairways?						
			Are toeboards provided where necessary?						
Protection for Openings Around Travelways		56.11012	Do railings, barriers, or covers protect openings above, below, or near travelways (through which persons or materials may fall)?						
			Are adequate warning signals installed where openings cannot be protected?						
Safe Access		56.11001	Is Safe means of access provided and maintained to all workplaces (including servicing equipment)						
COMPRESSED GASES	2								
Securing Compressed Gas Cylinders		56.16005	Are compressed and liquid gas cylinders secured in a safe manner?						
Protection of Cylinder Valves		56.16006	Are valves on compressed gas cylinders protected by covers when being transported or stored?						
			Are cylinders placed in a safe location when in use?						
DUST/NOISE	2								
Airborne contaminants exposure		56.50010	Is the employee's exposure to airborne contaminants (usually dust) within allowable limits?						
		56.50010	Are approved respirators available and worn until controls have been implemented to acceptable limits?						
			Is there a program for selection, maintenance, training, fitting, supervision and cleaning of respirators?					T	
			Are employees withdrawn from areas where an airborne contaminant given a "C" designation exceeds the limit for that contaminant?						

* C = certification required, R = record required and T = training required.

MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

DESCRIPTION	% of 1997 Cr. Stone Citation	Standard	QUESTION	YES	NO	N/A	CORRECTIVE ACTION	C/R/T	Date Resolved
Noise exposure		56.50500	Are employee's protected from exposure to noise exceeding 115 dBA or allowable limits specified in "Permissible Noise Exposures" table?						
			Is suitable hearing protection available and worn until controls have been implemented to acceptable limits?						
ELECTRICAL									
Conductors		56.12004	Are electrical conductors (power cables) protected from mechanical damage?						
			Are the electrical conductors sufficient in size and current-carrying capacity to prevent overheating or damage to the insulating cover?						
Power Wires and Cable Entrance		56.12008	Are the power wires and cables adequately insulated where they pass into or out of electrical compartments?						
			Are cables entering metal frames of motors, splice boxes, and electrical compartments, through proper fittings and bushings?						
Splices, permanent		56.12013	Are permanent splices in cables insulated as near as possible to the original cable, mechanically strong, sealed to exclude moisture, and mechanically protected?						
CONTINUITY AND RESISTANCE TESTING	3	56.12028	Are grounding systems tested immediately after installation, repair or modification, and annually thereafter?						
			Is a record of the most recent test available for inspection?					R	
COVER PLATES MISSING	3	56.12032	Are there inspection and/or cover plates on electrical equipment and junction boxes?						
DANGEROUS ELECTRICAL CONDITIONS		56.12030	Are potentially dangerous electrical conditions corrected before the equipment or wiring is energized.						
GROUNDING	4	56.12025	Are all metal-enclosing or metal-encased electrical circuits grounded or provided with equivalent protection.						

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MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

DESCRIPTION	% of 1997 Cr. Stone Citation	Standard	QUESTION	YES	NO	N/A	CORRECTIVE ACTION	C/R/T	Date Resolved
EQUIPMENT, MOBILE									
BERMS, GUARD-RAILS, RESTRAINTS	4	56.93000	Are adequate berms or guardrails provided and maintained on the outer banks of elevated roadways?						
			Are berms or guardrails at least mid-axle height of the largest piece of equipment traveling the roadway?						
		56.93010	Are berms, bumper blocks, safety hooks or similar devices provided at dumping locations where there is a hazard of overtravel or overturning?						
BRAKES	5	56.14101							
			Is self-propelled mobile equipment equipped with a service brake system capable of stopping and holding the equipment with its typical load on the maximum grade it travels? (Does not apply to rail equipment.)						
			Are parking brakes capable of holding self-propelled mobile equipment with its typical load on the maximum grade?						
			Are all braking systems on self-propelled mobile equipment installed and maintained in functional condition?						
CABS	4								
Operator Stations		56.14103	Are windows on operators' stations of self-propelled mobile equipment made of safety type glass or equivalent safety characteristics?						
			Are damaged windows that obscure visibility replaced?						
			Has self-propelled mobile equipment been modified in a manner that obscures visibility necessary for safe operation?						
			Is the operators' station kept clean and free of extraneous materials that may impair the safe operation of equipment?						
DEFECTS	7	56.14100							
			Is self-propelled mobile equipment inspected by the equipment operator before being placed in operation on that shift?						

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MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

DESCRIPTION	% of 1997 Cr. Stone Citation	Standard	QUESTION	YES	NO	N/A	CORRECTIVE ACTION	C/R/T *	Date Resolved
Mobile Equipment Defects (Cont.)			Are defects that affect safety corrected in a timely manner?						
			Is unsafe equipment taken out of service?						
			Are defects that affect safety reported and records kept until defects are corrected?						R
HORNS/BACK-UP ALARMS	9	56.14132	Are manually operated horns or other audible warning devices provided on self-propelled mobile equipment?						
			Does self-propelled mobile equipment have an automatic reverse-activated signal alarm?						
SEAT BELTS	3								
Seat Belts		56-14130	Is self-propelled mobile equipment provided with seat belts?						
			Are seat belts maintained in good condition?						
			Are equipment operators required to wear seat belts?						
Seat Belts for Haulage Trucks		56.14131	Are seat belts provided in haulage trucks?						C
			Are truck drivers required to wear seat belts?						
TRAFFIC CONTROLS	1	56.91000	Are rules established and followed for governing speed, right-of-way, direction of movement, and the use of headlights?						
			Are signs and signals that warn of hazardous conditions placed at appropriate locations?						
EXAMINATION OF WORKING PLACE	2	56.18002	Does a competent person examine each working place at least once each shift for health and safety conditions?						
			Is appropriate action taken promptly to correct such conditions?						
			Is a record of the examinations kept for a period of one year?						R

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MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

DESCRIPTION	% of 1997 Cr. Stone Citation	Standard	QUESTION	YES	NO	N/A	CORRECTIVE ACTION	C/R/T *	Date Resolved	
FALL PROTECTION	1	56.15005	Do persons wear safety belts and lines where there is a danger of falling?							
			Are approved safety belts and safety lines readily available?							
			Does a second person tend a lifeline when bins, tanks, or other dangerous areas are entered?							
FIRE EXTINGUISHERS/ EQUIPMENT INSPECTION	2	56.42010	Is the firefighting equipment being inspected monthly?							
			Are Annual maintenance checks made of mechanical parts to determine if fire extinguishers will function properly?							
			Have fire extinguishers been hydrostatically tested according to the manufacturer's specifications?							
			Have water pipes, valves, outlets, hydrants, and hoses been visually inspected every three months and use-tested every twelve months?							
			Have fire suppression systems been tested annually?							
			Are inspections and tests certified and records maintained at least one year?							C R
FIRST AID TRAINING	2	56.18010	Is an individual capable of providing first aid available on all shifts?					T		
			Is first aid training made available to all interested miners?						T	
GUARDS Missing LEFT OFF	19									
Guarding moving Machine Parts		56.14107	Are adequate guards provided to protect persons from contacting gears, sprockets, chains, drive, head, tail, and take-up pulleys, flywheels, couplings, shafts, fan blades, and similar moving parts that can cause injury?							
Guards - Construction & Maintenance		56.14112	Are guards securely in place when equipment is operating?							
			Are guards constructed to withstand vibration, shock, and wear they will be subjected to during normal operation?							

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MTU - MINE SAFETY & HEALTH TRAINING PROGRAM

DESCRIPTION	% of 1997 Cr. Stone Citation	Standard	QUESTION	YES	NO	N/A	CORRECTIVE ACTION	C/R/T *	Date Resolved
Guarding Conveyors		56.14109	Are conveyors next to travelways equipped with emergency stop devices, or have guardrails between the conveyors and travelways?						
			When railings are used in-lieu-of emergency stop devices, are they substantially constructed, maintained, and positioned to prevent persons from falling against the conveyor?						
HOUSEKEEPING		56.20003	Are workplaces, passageways, storerooms, and service rooms kept clean and orderly?						
			Are floors of every workplace maintained in a clean and dry condition						
			Is every floor, working place, and passageway kept free from protruding nails, splinters, holes, or loose boards?						
WARNING SIGNS/SMOKING/ OPEN FLAMES	1	56.41010	Are readily visible signs prohibiting smoking and open flames posted where a fire or explosion hazard exists?						

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8. Sample Company Mine Safety Program

This chapter goes through an example of a surface mining company's safety policy. This is only an example. Your own company's policy should reflect your company's circumstances and concerns.

Table of Contents

A Table of Contents for your companies Safety Policy Manual always helps in locating desired information quickly. Below is a listing of headings that would be used to create the Table of Contents for this sample Safety Policy Manual.

COMPANY POLICY & MISSION STATEMENTS
 GENERAL COMPANY SAFETY RULES
 GENERAL EMERGENCY RESPONSE PROCEDURES
 INTOXICATION & DRUG USE POLICY
 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS
 LOCKOUT/TAGOUT PROCEDURES
 HAZARD COMMUNICATION
 CONFINED SPACE ENTRY
 ELECTRICAL SAFETY
 CONVEYOR SAFETY
 WALKWAYS
 MOTOR VEHICLE OPERATION
 MOBILE EQUIPMENT OPERATIONS
 LADDER SAFETY
 CRUSHING & SCREENING OPERATIONS
 OFFICE AREAS
 SMOKING POLICY
 HOIST SAFETY GUIDELINES
 HAZARDOUS NON-ROUTINE TASKS
 PLANT RULES OF CONDUCT
 AGE REQUIREMENT

Company Safety and Health Policy Statement

This is the general Company Safety and Health Policy Statement. It should reflect Management's present attitude toward safety. The company's present owner or CEO should sign it. Although not required by MSHA, this policy is essential for setting the tone for safety at the company. Without it, all employees' attitudes toward safety are without direction. Communication about safety matters becomes a matter of individual preference and thus suffers because there is no "Official" support for safety. Your policy statement doesn't have to read the same as the sample below. Rather, it should reflect management's true attitude toward safety, even if it's not as safety supportive as our sample. If it does not reflect management's true attitude, you won't be fooling anyone. Employees will see right through it and your company's ability to be safe will have taken a giant step backward. Thus, this policy statement should be given due consideration.

SAMPLE SAFETY AND HEALTH POLICY STATEMENT

We recognize that our company's employees are our greatest asset. We are concerned about their health and well being and, therefore, we must do all that we can to protect them from occupational injuries and illnesses.

A top priority in this company is to provide a safe place for all of our employees to work. Equipment that is always safe for use, properly trained employees, and safe methods and procedures are the basis of our safety program. No job is so important that safety and health concerns can be overlooked.

We also recognize that efficiency and safety are not opposites, but that both contribute to the company's profitability. Accidents interrupt operations and often reflect poor planning in procedures that negatively impact both efficiency and safety. Efficiency depends upon the uninterrupted completion of tasks. We intend to progress beyond applicable standards and government regulations whenever simply complying with these leaves any doubt about whether or not our employees are adequately protected.

We recognize that, for our program to be successful, employees must cooperate fully. We also recognize the importance of trustful communication between our employees and their supervisors to maximize this essential cooperation. A fundamental element in this trust is a proper example by supervisors at all times. Also, our supervisors, who are responsible for enforcing these policies, must continually work at breaking down barriers to the safe behavior by recognizing and dealing with the barriers that are under their control and taking steps to deal with them. In this respect, our supervisors are expected to work toward attaining and maintaining employee trust and must provide the encouragement our employees need to discuss safety and health concerns. All company employees and especially supervisors must be subject to clearly spelled out levels of punishment for taking unsafe shortcuts or using unsafe equipment. Management intends to evaluate all employees, not only on their contributions to improved production, but also on their compliance with the policies presented here and contributions to developing safer work methods. Using unsafe equipment or damaging, altering or abusing safety equipment will not be tolerated.

Person in Charge

Alternate Person in Charge

Company Mission Statement

A Company Mission Statement usually contains a list all of the general goals that a company has. This list of goals usually includes one or several that involve safety. As such, it should be included in any safety program or manual that the company puts together.

SAMPLE MISSION STATEMENT

(Your Company Name goes here) will:

- Supply our employees with a safe and secure work environment and equip them with the tools to enable them to meet their individual objectives.
- Enrich our culture through trust, teamwork, individual initiative, high expectations, active involvement, and open communications.
- Promote innovation and harvest ideas at all levels of the organization to foster personal growth and continuous corporate improvement.
- Grow our business through marketing, research and technological advances, while recycling and using the earth's natural resources in a manner that enhances the quality of life.
- Repay the communities that support us by operating safe and environmentally sound businesses while sharing our success with worthy charitable causes.
- Observe standards of moral and ethical conduct that will easily withstand any public or private scrutiny.
- Always treat others the way we would wish to be treated and work hard to gain the same treatment from them.

Other examples of Safety-Oriented Mission Statement Elements

- Develop caring relations between our supervisors and employees by ensuring that all employees are treated respectfully and are nurtured and developed to view our company and their work in a positive way, which is reflected in their dealings with one another and with our customers.
- Recognize the value of our properly trained employees and take necessary steps to ensure that none is lost due to accident or injury or by poor human relations.
- Provide a safe and healthy work environment, which includes providing employees with the equipment and working conditions needed to perform their duties without illness or injury.
- Promote trust, teamwork, and open communications between employees at all levels.
- Promote innovation and solicit ideas at all levels of the organization to foster personal growth and continuous corporate improvement.
- Operate a safe and environmentally sound business and observe standards of moral and ethical conduct, which will easily withstand public or private scrutiny.

GENERAL COMPANY SAFETY RULES

- All accidents, incidents or injuries, no matter how slight, must be reported to the superintendent or supervisor prior to the end of the shift.
- Employee attendance is mandatory at scheduled safety meetings and training sessions.
- In the event of a fatal injury, the scene of the accident must be left unchanged, except for the protection of other persons, until proper authorities investigate. The supervisor, Safety Department and appropriate MSHA/OSHA office must be notified immediately.
- All persons must wear the appropriate Personal Protective Equipment as required by job classification or location, including visitors.
- No person shall smoke or use an open flame within 25 feet of any flammable liquid, material, gas or explosive.
- Never remove or make safety devices inoperative.
- All warning signs must be heeded.
- Horseplay, practical jokes and other similar distractions will not be tolerated.
- Visitors or persons not employed by the company will not be permitted near any operation unless they are trained and a written and signed authorization has been obtained.
- Any employee found on duty in possession of, consuming, or under the influence of intoxicating beverages or drugs will be subject to disciplinary action up to and including immediate dismissal.
- During each work shift, employees must inspect the equipment assigned to them to make certain that it is in safe operating condition. An inspection form must be completed and turned in to the supervisor in charge. Unsafe equipment will be tagged and will not be used until it is repaired.
- All unsafe conditions must be reported immediately to your supervisor.
- Tools, ladders, etc. must be returned to their proper places and rubbish, waste and rags must be discarded using properly labeled receptacles. No repair or construction job is completed until all tools are put away and work areas are cleaned up.

GENERAL EMERGENCY RESPONSE PROCEDURES

Placards containing the following information are placed and maintained at all plant and pit telephones and communication devices. Further, all pieces of mobile equipment contain this information in a readily accessible location to the operator.

1. Phone numbers of all local emergency services - listed by type of emergency.
2. Phone or contact numbers of company Safety Officers.
3. Written description of directions to the mine and to the phone itself.

It should be noted that the 911 emergency services have been provided with a list of emergency services to contact for various mine-related emergencies.

Accidental Explosion

If an accidental explosion occurs, employees will immediately call 911 and report the accident to the local authorities. Employees will also notify company safety personnel. If trained, employees will extinguish any small fires with an appropriate fire extinguisher and render any first aid treatment they have been trained to give for any injuries until emergency personnel arrive. If the plant is evacuated, employees will proceed to their assigned evacuation meeting area. Upon reaching this area employees will report to their supervisor immediately.

NOTE: If evacuating the plant, employees should watch for hazards such as high-tension wires, which may come down in an explosion.

Weather Related Emergencies

Tornado, High Winds

Injuries may result from falling objects, gas line explosions, fires, electrical shocks from downed wires, vehicle accidents, and panicky reactions. Employees will seek shelter under a substantial structure that can shield them from falling or flying objects. 'Substantial structures' include desks, doorways, and other structures that are fortified and can withstand falling or flying materials.

If in a vehicle, employees will stop the vehicle and turn off the ignition. They may need to move away from the vehicle to a safe area, if the situation warrants it. If the Plant must be evacuated, employees will then proceed to their assigned evacuation meeting area. Upon reaching this area employees will report to their supervisor.

Electrical Storms

Immediately seek shelter in lightning protected buildings or in a completely enclosed vehicle. Take appropriate precautions if involved in blasting,

Heavy Rain

All road washouts will be reported to the supervisor in charge of the effected area. Vehicles and mobile equipment will not drive through flowing water and will avoid driving through standing water when the ground conditions are unknown.

Oil or Chemical Spills

In the event of a major spill, trained employees will isolate the area immediately. They will shut down pumps and/or close open valves contributing to the flow of the spill. They will then contain the spill immediately by 'diking' the area. Trained employees will accomplish this by surrounding the spill with absorbent spill control tubes, soil, or other proper 'diking' material.

NOTE: Immediately notify your supervisor, the Quarry Engineer who is the designated Hazardous Waste Operations (HAZWOPER) Coordinator, and the Human Resources office.

Medical Emergencies

All injuries, no matter how slight, will be reported immediately to department supervision.

If the workplace injury is minor, but appears serious enough to require a doctor's care, employees will contact _____ so that arrangements can be made to have the injured employee transported to a clinic or hospital. Employees must NEVER seek medical attention on their own for work related minor injuries. All medical attention for work related minor injuries is to be arranged through plant supervision. Employees who fail to notify appropriate company

personnel of an injury received at work or who seek medical attention on their own for such injuries will subject themselves to possible disciplinary action and will be required to provide proof of the injury's relation to work before they can receive compensation.

When any injury occurs, employees will immediately seek out an employee that has been trained to administer appropriate First Aid. If one cannot be found, employees must immediately contact emergency services (911) and follow their instructions. Company safety personnel will be contacted after appropriate First Aid has been rendered.

Plant Fire Emergencies

Fire extinguishers are located throughout the plant and in mobile equipment. In addition, most mobile equipment is equipped with fire suppression systems. Employees trained in the use of these fire extinguishers will know the locations of extinguishers in their work area.

When a fire is detected, employees will do the following.

1. If the fire is small when first detected, employees trained in the proper use of fire extinguishers may choose to quickly extinguish the fire with an appropriate fire extinguisher. Otherwise, employees will immediately contact their supervisor or other trained employee.
2. If the fire cannot be contained using hand-held fire extinguishers, employees will do the following if it is safe to do so:
 1. Call the fire department (dial 911) and follow their instructions.
 2. Close doors to isolate the fire if applicable.
 3. Cut off gas and power.
 4. Assist the fire department only as requested.
 5. Evacuate plant personnel in an orderly manner in accordance with plant evacuation procedures. Employees will proceed to their assigned evacuation meeting area. Upon reaching this area employees will report to their supervisor immediately.
 6. Notify appropriate company safety personnel.

Housekeeping for Fire Prevention

- Maintain a neat, clean work area and prevent accumulation of rubbish.
- Put oil-soaked and paint-soaked rags in properly covered metal containers.
- Never smoke in areas posted "No Smoking".
- Keep fire doors, exits, stairs, fire lanes, and fire fighting equipment clear of obstructions.
- Keep all flammable materials away from furnaces or other sources of ignition.
- Report any fire hazards you see that are beyond your control, including electrical hazards.

INTOXICATION, PRESCRIPTION & NON-PRESCRIPTION DRUGS

- The use or possession of alcohol, marijuana, illegal drugs, or being under the influence of such on company or customer property or on company time is forbidden.
- Employees having prescription drugs in their possession or who must use prescribed drugs will be required to inform their supervisor. These employees must then inform their supervisor of any subsequent changes in the use of the prescription drug.

- The use of certain types of prescription drugs will automatically render the user unfit for certain types of duty. The supervisor may require that employees obtain written permission from their physician before normal duties can be resumed.
- The company reserves the right to deny any employee permission to work if, in the opinion of the supervisor, the employee's condition may adversely affect his work performance, safety, or the safety of others.
- Violation of this policy shall be cause for disciplinary action up to and including immediate dismissal.
- Supervisors will be trained to determine employee fitness for duty.

PERSONAL PROTECTIVE EQUIPMENT AND EMPLOYEE DRESS

- All employees are required to wear full-length trousers and a shirt covering the upper torso and shoulders.
- Company-approved hard hats, safety glasses with side shields, and hard-toed shoes are to be worn at all times. (Shoes may also require metatarsal guards, electric hazard protection & puncture resistance.)
- Specific work areas may require the use of goggles, gloves, aprons, or respirators. These areas will be posted and employees will receive instructions on which PPE they are required to use.
- A face shield, goggles or protective hood must be worn over safety glasses when grinding, welding, cutting, working with molten metal or other tasks where flying material is a hazard.
- Company-approved hearing protection is to be worn in posted areas or as required by conditions. Note: If employee must raise their voice to be heard 3 feet away, hearing protection is recommended.
- Gloves must not be worn where they would create a greater hazard by becoming entangled in the moving parts of machinery. These areas will be posted as such.
- Seat belts must be fastened when in mobile equipment on plant premises. This includes personal vehicles.
- Devices that prevent proper hearing are forbidden (radios with headphones etc.)
- Personal Flotation Devices - While working where there is a danger of drowning, employees must wear a Coast Guard approved flotation device. A life ring with rope attached must be in the immediate area.

Respirators

Respirators are required in posted areas or for designated operations. An employee must be fit tested, trained, and may need a medical evaluation prior to starting work that requires the use of a respirator.

Fall Protection

Each employee on a walking/working surface with an unprotected side or edge that's 6 feet or more above a lower level shall be protected from falling by the use of a guardrail system, a movement-restrictive belt and lanyard, or a personal fall arrest system. A safety belt is only

acceptable to restrain an employee from approaching an edge. A full-body harness must be used for fall-arrest purposes. The use of improvised belts, such as rope, is prohibited.

LOCKOUT/TAGOUT

- Adjustments, service, repair or performing maintenance requires procedures for lockout and shutdown that are equipment-specific.
- A step involving testing of the equipment to ensure that it cannot be turned on must precede work on the equipment.
- Only employees trained and authorized may oversee the lockout process and must follow company procedures.
- The company will supply locks and tags exclusively for equipment lockout.
- Every employee involved in the work must apply his or her own lock to the lockout device used to ensure that the equipment will not operate. This applies to all supply and discharge equipment, as well.
- Only the specific employee who installed the lock is allowed to remove it. If a lock is left on the locked-out equipment by a missing employee, the fact that the particular employee is in a safe location must be positively established before the person authorized to represent other persons in the removal of such locks can remove the missing employee's lock.
- Insure control of all other energy sources that could affect workers including air, steam, hydraulics, gravity, compressed springs, etc.

HAZARD COMMUNICATION PROCEDURES

This company is committed to informing employees of the hazards associated with the chemicals they work with. This company's Hazard Communication program will include correct labeling of all chemicals, fuels etc. and making material safety data sheets available to employees.

Supervisors will inform their employees of any chemical hazards to which they may be exposed during normal working conditions or in a foreseeable emergency. Supervisors will bring each pertinent MSDS to the attention of employees who use the chemicals and will keep the MSDS sheets in a location where employees may readily access them. Supervisor will make sure the affected employees understand the information on the MSDS and on labels as well as other warnings.

Labels and Other Forms of Warning

Labels on chemical containers will contain the following information:

- Identity of the chemical.
- Name and address of the manufacturer, importer or other responsible party.
- Appropriate hazard warnings.

All containers entering or leaving company property will be labeled. Any containers with damaged or missing labels will have the labels replaced. Existing containers that have deteriorated or are missing labels will also receive new labels. Plant piping systems that contain

hazardous chemicals will be labeled at access points and where piping is 8 feet or closer to employee contact.

Employee Information and Training

Employees required to handle hazardous chemicals will be task trained. This training will be provided to any employee working in an area where hazardous chemicals are present, when a new hazard is introduced into the work area, or when the employee is transferred to a new job where hazardous chemicals are present. The training program will be site or work-area specific as determined by the materials on hand. All employees must be trained in the following areas:

- Which operations in their work area may contain hazardous materials.
- The list of hazardous chemicals and the location and availability of the material safety data sheets.
- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area.
- The physical and health hazards of the chemicals in the work area.
- The measures employees will take to protect themselves from these hazards, including information on work practices, emergency procedures and personal protection equipment.
- Details not included here, including an explanation of the labeling system, how to read and interpret labels and material safety data sheets and how to obtain and use the appropriate hazard information on the labels and in the MSDS.

CONFINED SPACES

Employees who must enter confined spaces at the mine site will be trained on the associated hazards and the procedures for dealing with these hazards. Appropriate confined space entry equipment will be provided.

Confined Space Definition

A confined space is a space, which by design has one or more of the following:

- Limited openings for entry and exit.
- Unfavorable natural ventilation which could contain or produce dangerous air contaminants:
- It is not intended for continuous employee occupancy.

Examples may include storage tanks, process vessels, silos, bins, hoppers, boilers, ducts, tunnels, etc.

The company will post all confined spaces.

Permit Required Confined Spaces

If there is any reason to believe that any of the following hazards may be present, the confined space will be posted "Entry Permit Required."

- Lack of Natural Ventilation
- Oxygen Less than 19.5% or greater than 23.5%
- Flammable/Explosive atmosphere

- Toxic air contaminants
- Potential for being engulfed in material.
- Potential for entrapment.
- Limited entry and exit
- Thermal hazards

Entry Permits will only be issued by _____.

Procedure for entry into Permit Required Confined Spaces

1. Obtain confined space entry permit form from _____.
2. Employee entrants will fill out entry permit and have the permit approved by _____.
3. Once the permit is issued, properly trained employees will obtain appropriate equipment.
4. Lock out all equipment that could create a hazard for confined space entrants, including equipment that may feed material into the confined space.
5. Ventilate the confined space for recommended amount of time prior to entry. (Continue ventilating during entry.)
6. Check the air in the confined space with a gas monitor to ensure that ventilation is adequate.
7. Set up fall restraint/retrieval system.
8. Entrants will put harness on, and enter confined space carefully.
9. Attendant remains at confined space entry point at all times when workers are inside of the confined space. Attendants will remain in constant contact (visually or audibly) with persons inside any Permit Required confined space.
10. The attendant will check ventilation and air quality in the confined space on a regular basis.

ELECTRICAL SAFETY

Never Work on Energized Circuits.

- All electrical repairs are to be made only by authorized qualified persons
- It will be assumed that all electrical wires and apparatus are energized until tests prove they are de-energized.
- All power circuits must be locked-out when working on equipment.
- All stationary metal equipment, metal buildings, electric motors and boxes housing electrical equipment must be properly grounded. A ground wire with the same current-carrying capacity at least as great as the hot wires must be run from the item grounded (i.e. motor frame) to the source ground. A recorded measurement must be made and recorded which shows that the resistance between the item grounded and the source ground is less than one ohm. Records of annual resistance measurements (or measurements made after movement or changes) will be on file and available for the MSHA inspector.
- An annual resistance test will be done to check that the source ground is adequate. Such tests are also required when changes are made that could affect the test results. The test will be made in accordance with procedures established in the regulations. The results must be less than 25 ohms to be acceptable. Readings greater than 25 ohms indicated a problem that will be corrected to reduce the reading. Readings will be on file for inspection.

- When operating a non-relay type electrical switching device (i.e. fuse box power cut-off switch), employees will first grasp the handle and then face away from the switch before operating it.
- To the extent possible, the load on electric motors will be minimized before switching motors on or off.
- All portable electrical tools and extension cords will be tested to insure proper grounding. Otherwise the tool must be clearly labeled as being double insulated.
- All electrical extension cords and portable electric tools will be inspected prior to use. Damaged equipment will not be used. Tests for polarity and continuity will be made on electrical cord sets on a regular basis. Any cord sets that do not pass tests will be discarded.
- Portable electrical equipment and flexible cords must not be used in damp or wet locations. Where portable electrical equipment is specifically designed for this application, the person must be task trained to use the equipment correctly and in accordance with the manufacturer's instructions. Portable hand tools should always be plugged into a GFCI protected outlet.

CONVEYORS

- All nip points and pinch points less than seven feet from walkways and other walking surfaces will be guarded at all times when the conveyor is operating.
- Only authorized and designated persons who have received the proper task training will be allowed to operate conveyors.
- Conveyors will not be loaded or put into motion until a check is made to verify that all employees are clear.
- When the operator does not have a full view of the conveyor, an audible warning siren will be sounded 15 seconds prior to starting the conveyor. If the conveyor isn't started after 30 seconds, another warning will be sounded and another 15-second interval allowed before starting. All employees will be trained on conveyor startup warning signals.
- Conveyors will be locked out and tagged out with a "Do Not Operate" tag during repairs and maintenance work.
- Employees will never oil, grease, or clean parts on a conveyor that is not locked and tagged unless grease fittings are piped to a point outside of the guards.
- Moving conveyor belts will never be ridden or used as walkways.
- Belts will be stopped and locked out to adjust skirts and scrapers.
- Only approved personnel who have been properly task trained will adjust the tracking on moving belts. Specific pre-approved procedures will be followed.

WALKWAYS

- Walkways will never be used to store tools or materials.
- It is all employees' responsibility to clean up the debris they deposit on walkways.
- Employees will report any debris left by others that is discovered on walkways.
- Access to walkways under repair will be properly blocked and proper warning signs used.
- Walkways and guardrails will be kept in good repair.

- Only designated walkways will be used. Use of shortcuts is prohibited.
- Where walkways are adjacent to conveyors, either a properly positioned handrail, or an emergency stop cord will be used. The stop cord will project far enough out to stop the conveyor if a person trips toward the conveyor.
- Handrails will be in place along all elevated walkways and will have top- and mid-rails at the proper heights. A toe-board will be used on all elevated walkways to help protect persons from slipping under the rails and to prevent tools, equipment, materials, etc. from falling onto persons or equipment below.
- Each employee is responsible for reporting any unsafe condition to the supervisor immediately.

WELDING AND CUTTING & HOT WORK

General

- All welders and cutters will be task trained.
- Combustible materials within 25 feet of welding operations will be removed or protected from sparks prior to welding.
- A portable exhaust hood or other adequate ventilation will be used.
- Fire check 30 minutes after completion of hot work.
- Prior to use, welders and cutters will inspect equipment in accordance with manufacturer's recommendations.
- Oil or grease must never be allowed to contact oxygen cylinder valves, regulator connections or torch and hose connections. Never oil threads on oxygen fittings.
- Keep all cylinders secured in an upright position. Do not use acetylene from cylinders that have not been continuously stored upright for several hours, prior to use.
- Keep caps on all cylinders that are not in use. Valves must be protected when caps are off.
- Prior to use, check-valves and flash-arrestors on gas welding equipment will be checked as per manufacturer's instructions.
- Make periodic soap tests for leaks on all connections.
- When not in use, hoses will be coiled and off the ground to avoid damage.
- Only carts, which hold the cylinders in an upright position, will be used for conveying cylinders.
- When in storage, the various types of cylinders (oxygen, acetylene, etc.) shall be segregated and easily identified. Oxygen cylinders will be separated from fuel gas cylinders (acetylene, propane, etc.) by a minimum of 20 feet or by a properly constructed firewall.
- Immediately after using the torch, bleed all pressure from lines and regulators by closing the tank valve first, then opening the torch valve and finally opening the regulator valve.
- Maximum regulated acetylene pressure shall never exceed 15 p.s.i.g.
- Compressed gas cylinders on maintenance vehicles will always have the valve caps in place, except when the cylinders are in use.
- Always wear the designated proper eye, face, body and hand protection when welding or burning. Respirators will be used when recommended.

When Welding & Cutting

- Avoid inhalation of metallic fumes or acetylene.
- The area above, below and around the welding location will be checked for other employees. Proper curtains to protect other employees from welding flash will be used if other employees are working in the area.
- Employees will ensure that the material to be welded or cut is properly supported. Oxygen or acetylene cylinders will never be used for this purpose.
- Hoses are color-coded to avoid mixing; oxygen - green; acetylene-red. Standard hose connections are threaded right hand for oxygen and left hand for acetylene.
- Remove welding rods from stinger when not in use.

MOTOR VEHICLES

To include company automobiles, pickups, and service vehicles.

All employees operating Company vehicles must have a valid operator's license. Moving-violation citations issued while operating a company vehicle are the operating employee's responsibility, but must be reported to the employees' supervisor.

- Required inspection of the vehicle before leaving the garage or company location and at each fuel stop will include the following. Engine oil, engine coolant, fuel, brakes, tires, steering, lights, windows, washers, wipers, mirrors, horns or other safety devices, and any unusual noises will be reported. Repairs or selection of another vehicle will be made where defects compromise safety.
- Drivers must not operate vehicles when sleepy or under the influence of drugs or alcohol including prescription drugs (Supervisors will make decision on fitness for duty when prescription medications are involved).
- All drivers and vehicle occupants will wear seat belts.
- Drivers will obey all posted speed limit and traffic signs on and off company property.

MOBILE EQUIPMENT OPERATION

- Before operating mobile equipment, perform a walk-around inspection. Use the checklist provided by the company which, at a minimum, should include engine oil, engine coolant, hydraulic lines, fuel, all brakes, tires or tracks, mud flaps, steering, lights, windows, washers, wipers, mirrors, horns and backup alarms, cables and hooks and any unusual noises. Any defects must be marked on the checklist. Defects which, in any way, compromise employee safety or which may result in further damage to the equipment will be repaired before the equipment is used, and the defective equipment will be tagged and moved to the maintenance area. Other defects will be repaired before the equipment is used on another shift.
- All road trucks will have mud flaps and/or rock ejectors on rear wheels. These will be anchored so no rocks can be thrown out from between dual tires.
- Large rocks caught in the dual tires or treads of trucks will be removed before each shift.
- Haul roads will be maintained in a graded condition or, where this is not possible, speeds must be reduced.

- Large rocks and spillage will be removed from haul roads immediately. If this cannot be accomplished, the condition will be reported to the area supervisor.
- Only approved task-trained operators will be permitted to operate equipment (maintenance personnel will be task trained on any equipment they are to repair and trainees will operate equipment only under close supervision of the trainer).
- Speeding, recklessness, thoughtless actions or horseplay will not be permitted.
- Transport of passengers inside equipment not specifically designed for passengers or on the outside of mobile equipment, in buckets or on crane and hoist lines is strictly forbidden.
- Foot traffic will not be allowed near operating mobile equipment unless it is as a task-trained spotter.
- Getting on or off a moving machine for any reason is prohibited.
- When mounting equipment or climbing any ladder, employees will always follow the three point system (i.e., 2 hands and 1 foot, 2 feet and 1 hand in contact with equipment).
- All operators of mobile equipment, equipped with ROPs/FOPs will wear seatbelts.
- A right hand traffic pattern shall be used on haul roads at all times unless special conditions exist requiring left-hand traffic patterns. Where a left-hand pattern is required, warning signs must be posted at regular intervals to serve as reminders.
- All haulage equipment with seats shall have the seats tethered to the frame (see MSHA policy on this topic for details).
- Truck drivers doing dumping on storage piles must dump their load away from the edge. Dumping material over the edge of a storage pile is prohibited.
- A properly constructed and properly placed minimum-axle-height berm is required at all dumping locations to help the operator determine where to stop.
- Front-end loader buckets, dozer blades, crane buckets, etc. shall rest on the ground when not in use.
- Loader operators shall not load a delivery truck unless its occupants are in the cab of the truck.
- When using a spotter to guide the equipment operator, confirm before operating the equipment what signals will be used and who will be giving them. Use only ONE ground guide.
- Towing - Avoid any towing method that involves jerking the load. The use of a solid tow bar is best. Towing equipment will be inspected for defects prior to use. Use a large enough towing vehicle to ensure smooth towing. When disabled vehicle can freewheel, a second towing vehicle at the rear of the disabled vehicle will be provided for braking.

LADDERS

- Only portable ladders of industrial quality meeting ANSI standards may be used.
- All ladders shall be inspected before each use. Ladders found to be defective shall be removed from service immediately, tagged and reported.
- Bulky or heavy materials which make the three-point climbing method (continuous contact of two hands and one foot or two feet and one hand with the ladder) impossible or which overload the ladder shall be raised and lowered with mechanical devices such as block and tackle, ropes or hoists.

- Use only ladders equipped with safety feet, and which are tied off at the top. Never climb above the third rung from the top.
- Only one (1) man should be on a ladder and only the tools required should be taken to the overhead repair area.
- Stepladders must always be fully open and on all four (4) feet. Never climb above the second step from the top.
- Use only company-provided ladders. Never construct a ladder or use contractor's ladders.
- Use only approved scaffolding, ropes and rails.
- When placing extension ladders, the feet should be placed one foot out from the wall for every four feet up the wall that the ladder extends. (1 to 4 rule.)
- All ladders will be made of fiberglass.
- Portable ladders must be stored properly when not in use - never store them upright unless they are tied off at the top.
- When man-lifts are used, see to the following: Man-lift must be inspected prior to use. Base of man-lift must be level and outriggers must be properly extended. Workers using man-lifts must wear fall protection. Worker must follow proper mounting & dismounting procedures. Weather conditions must not present a hazard.

CRUSHING AND SCREENING:

- Stairs, platforms, walkways, belts or machinery will be kept free of tools or other materials.
- Handrails on stairs shall be maintained in first class condition at all times.
- Repairing, oiling or wiping of machinery will not be done while machinery is in motion.
- Shovels will not be used to put spilled material back onto a moving belt
- Conveyor head pulleys, tail pulleys and idlers shall not be cleaned while the conveyor is in motion.
- Machinery shall not be started after repair work, before inspecting to make sure all tools are removed and all personnel are in the clear. Approved company lock-out/tag-out procedures must be used on repair jobs or any time personnel are working on equipment.
- All guards must be in place while machinery is running.

OFFICE AREAS

- All office foot traffic hazards (such as blind corners) will be posted.
- In multi - drawer file cabinets, heaviest loads will be placed in lower drawers to avoid tipping.
- Desk, cabinet, or file drawers will not be left open.
- Electrical cords and telephone lines will be secured out of the way of traffic.
- Heavy lifting (40 lb. or more) will be done with machinery or other assistance.

SMOKING POLICY

- Cigars, cigarettes and other smoking materials will be extinguished in the appropriate receptacles.
- Restricted areas (gas pumps, cylinder storage areas, solvent and paint storage areas, etc.) shall be marked with warning signs. Smoking is forbidden in these areas as and in confined spaces (or spaces where the possibility exists for buildup of combustible or explosive vapors).
- Smoking in office buildings will only be allowed in designated areas.

HOIST SAFETY GUIDELINES

- Inspect equipment for any malfunctions prior to use. Before lifting: Check controls to verify proper function. Check pendant cables for cuts, kinks, or signs of wear. Check swaged sockets for damage and pins for excessive wear. Visually check hoist cables for fraying, kinks, crushing and twisting of the cables between the cable and the drum. Visually inspect the hook for cracks, bending or distortion.
- Alert supervision of any malfunctions and tag hoists stating malfunction.
- Always use a spotter when using cranes near overhead power lines. No part of the crane, the cable or the load may come within 10 feet of any overhead power line.
- Never exceed the designated safe load limit of hoisting equipment. Only trained and approved persons who are completely familiar with the weight capacity at various locations and boom angles are permitted to operate hoists.
- Only equipment with the weight capacity prominently displayed can be operated (e.g. maximum load 10 tons).
- Do not attempt to lengthen or repair the load chain.
- Always position the hoist directly over the load.
- Avoid swinging the hook or load when moving the hoist.
- Never allow the hoist cable to touch or bend around anything.
- Before lifting a load, apply slight pressure to the hoist to ensure that the lifting ring is seated in the bottom of the hook and that the hook is properly aligned.
- Between lifts, check to see that the rope is properly reeved on the drum.
- Attach sufficient guide ropes or tag lines to control the load.
- Never wrap a tag line around your wrist.
- Check the intended movement path to see that it is clear of people and obstructions and that the intended destination is ready to receive the load.
- Never tamper with any part of the hoist unless you are authorized to do so.
- Check brakes for excessive drift.
- Never start, stop, or reverse suddenly.
- Raise the load only high enough to avoid obstructions.
- Never hoist loads over workers -- always wait until the area is clear.
- Never leave a load suspended in the air unless it is attended.
- Never carry anyone on the hook or load.
- Do not operate hoist to extreme limits of chain or rope.

- Never use the hoist rope or chain as a sling.
- Keep loaded sling ropes or chains as near vertical as possible (horizontal sling ropes, chains or cables may break or be severely damaged). Avoid sharp bends.
- Never use hoist chain or rope as a ground for welding and never touch a live welding electrode to the chain or rope.
- All chains and slings must be inspected regularly for damage. Where damage is found, chains and slings must be replaced, not repaired.
- Inspection records must be kept on chains, hooks, etc. in accordance with OSHA guidelines.
- Never replace a clevis pin with a bolt.

(The following information can be inserted into this supervisor manual from the equipment operator's manual for each hoist or crane: 1. Crane Capacity. 2. Illustrations of Hoist Hand Signals)

HAZARDOUS NON-ROUTINE TASKS

Each location must compile a list of tasks or activities which employees may perform on a non-routine or periodic basis including, but not limited to, tasks that may expose the employees to potentially hazardous chemicals. Any employee performing a hazardous, non-routine task must be trained prior to starting the task. The training may simply consist of going over a written set of steps on how to perform the task safely and correctly.

PLANT RULES OF CONDUCT

A safe, orderly, and efficient work environment requires the cooperation of all employees in the performance of assigned responsibilities. To this end, it is important that all employees be fully informed of the requirements governing proper conduct while on Company property.

For the guidance of all employees, including supervisory personnel, the Rules of Conduct are listed below. Violation of any of these rules will be sufficient grounds for disciplinary action, including discharge, at the Plant Manager's discretion. This list is by way of illustration only and should not be deemed to limit the Company's right to discipline or discharge employees for other causes not specifically listed.

- Practicing or promoting discrimination against or harassment of another employee or group of employees on the basis of race, color, national origin, gender, age, religion, disability, or veteran status.
- Possessing any dangerous weapon or explosive while on Company property.
- Fighting with, threatening, intimidating, coercing, physically abusing, or interfering with other employees or persons doing business with the Company.
- Refusing to follow the instruction of or to perform assigned work by a supervisor or manager or using profane or abusive language or displaying abusive conduct disruptive to normal operation toward employees, supervisors, or persons doing business with the Company.

- Taking, receiving, or using without authorization goods, materials, services, equipment, or property belonging to the Company, employees, or persons doing business with the Company.
- Misrepresenting one's own work hours or the work hours of other employees.
- Endangering your safety or the safety of other employees that could result in possible physical injury to persons or damage to the property of the Company, employees, or persons doing business with the Company.
- Failing to comply with plant and/or department safety rules and practices.
- Falsifying Company records or forms.
- Falsifying or refusing to give testimony, information, or otherwise cooperating in the investigation of incidents of employee misconduct, accidents, theft, or other incidents.
- In accordance with the Plant's Substance Abuse Control Program, the use of drugs or alcohol at the Plant is prohibited. This includes using, possessing, distributing, selling, manufacturing, or having the detectable presence through toxicological testing of illegal drugs, alcohol, intoxicants, drug paraphernalia, or controlled substances including the use of prescription medications for which the employee does not have a valid prescription, while working, while on Company property, or while occupying or operating a Company vehicle (medications that could adversely affect an employee's ability to safely perform the job are not to be taken before or during working time. Employees with such medications must advise their supervisors before reporting to work.
- Sleeping while on working time.
- Refusing to work any scheduled straight-time hours.
- Leaving the assigned job or work area, department, or the Plant without permission before the end of the shift.
- Entering the Plant or property during non-scheduled work hours without permission or without a legitimate work-related reason.
- Violating the Plant Attendance/Tardiness Control Policy.
- Violating the Plant Rules Governing Solicitation on Company Property.
- Posting unauthorized notices, bulletins, or other information without the Plant Manager's approval or removing, defacing, or destroying notices, bulletins, warning signs or other property of the Company.
- Any other act deemed to be a substantial breach of normal employee conduct while on the Company's property or within the Company's control.

These rules are subject to change by the Company at any time without prior notice, and nothing contained in them is intended to create an employment contract between the Company and its employees. As always, all employees have the right to terminate their employment with the Company at any time and the Company has a similar right.

AGE REQUIREMENT

Any person working on the plant site in any capacity must be a minimum of 18 years of age.

(Note: Additional areas of company policy may be added depending on the nature of the company's work. These areas may include activities such as overhead construction work.)

9

9. MSHA’s Noise Standard – 30 CFR Part 62.

Glossary of Noise and Hearing Terms	
Action Level	An 8-hour time-weighted average sound level (TWA ₈) of 85 dBA, equal to a noise dose of 50%, integrating all sound levels from 80 dBA to at least 130 dBA.
Audiometric Testing	Audiometric tests must be pure tone, air conduction, hearing threshold examinations, with test frequencies including 500, 1000, 2000, 3000, 4000, and 6000 Hz. Each ear must be tested separately.
dBA	Unit of measure for sound pressure level at frequencies perceived by the human ear.
Dosimeter	Instrument used to measure personal exposure to noise. It continuously monitors, integrates, and records the sound energy a miner is exposed to. Must be capable of integrating sound levels from 80 to 130 dBA for comparison with the “Action Level”, and from 90 to 140 dBA for comparison with the PEL.
HCP (Hearing Conservation Program)	An HCP is a program established by a mine operator, which includes provisions for assessing miners’ noise exposure; audiometric (hearing) tests; providing and using hearing protectors; training; and record keeping.
LTL (Lower Threshold Limit)	Lower Threshold Limit – An 80 dBA LTL instrument setting is used to compare a miner’s noise dose to the Action Level. An LTL setting of 90 dBA is used to compare a miner’s noise dose to the PEL. Note: If readings are taken with a dosimeter capable of simultaneously calculating both the Action Level and the PEL noise doses, the higher of the two threshold limits (90 dBA) would then be called the HTL or Higher Threshold Limit. This is to distinguish it from the Lower Threshold Limit of the Action Level, which would still be called the LTL.
PEL (Permissible Exposure Limit)	A TWA ₈ of 90 dBA or equivalently a dose of 100% of that permitted by the standard, integrating all sound levels from 90 dBA to at least 140 dBA.
SLM (Sound Level Meter)	A Sound Level Meter (SLM) is a device, which indicates the sound pressure level in decibels (dB). To determine compliance with regulations, the “A” scale should be used. SLM readings are commonly used to help identify the source of a miner’s noise exposure and for noise surveys of the workplace. Must be capable of measuring sound levels from 80 to 130 dBA for comparison with the “Action Level”, and from 90 to 140 dBA for comparison with the PEL.
Sound Level (or Noise Level)	The sound pressure level in decibels measured using the 'A' weighting network and a slow response, expressed in the unit dBA.
TWA₈ (8-hr Time Weighted Average)	The sound level which, if constant over 8 hours, would result in the same noise dose as was measured.

Introduction to the New Regulation

On September 13, 1999, the Federal Mine Safety and Health Administration issued new health standards to protect miners from hearing loss associated with prolonged exposure to damaging levels of noise. The new rules, which are effective after September 13, 2000, require mine operators to enroll miners in a hearing conservation program if they are exposed to a work-shift noise dose greater than that equivalent to the 'action level' noise dose. The action level noise dose can be defined as an average sound level of 85 decibels (85 dBA) or more over an eight-hour period. A hearing conservation program includes training, audiometric (hearing) tests, noise monitoring, record keeping, and providing protection such as earplugs. Training must cover the dangers of noise exposure, the benefits of using protectors and how to use them. Use of hearing protectors for noise above the action level is voluntary, as are the hearing tests. There is an exception to this. Hearing protection must be worn if noise exposure above the action level is combined with: (1) the fact that the miner has incurred a standard threshold shift (as determined by audiometric testing), or (2) more than 6 months will pass before the miner can take a baseline audiogram. Even if this is not the case, mine operators must offer miners the protectors and the testing when the noise exposure reaches the action level.

The noise permissible exposure limit (PEL) remains unchanged at 90dBA over an eight-hour period. Where feasible engineering and administrative controls cannot reduce the noise in the working environment to the PEL, the rule requires hearing protection.

The new noise standard requires mine operators to evaluate workplace noise exposure and provide for miners and their representatives to observe any monitoring. At the time of this writing, there is a question about whether or not a mine operator will be cited for failing to conduct this monitoring if other requirements are met. See details in the following MSHA Program Policy letters: P00-V-3, P00-IV-4, P00-IV-1. These Program Policy letters can be found at MSHA's Internet site at: www.msha.gov. The new noise standard establishes several levels requiring mine operators to take action:

- Miners exposed to a work shift noise dose equal to or greater than the action level (85dBA over eight hours) must be enrolled in a hearing conservation program, which will include special training, monitoring and record-keeping, and offering hearing tests and hearing protection.

- If workplace noise levels reach the 90 dBA PEL, or more, over a full work shift, mine operators must use feasible engineering and administrative controls to reduce noise levels. In addition, hearing protectors must be provided and worn until the exposure is reduced to the PEL so long as the equipment responsible for the overexposure is operating. Hearing protectors are required only while the miner is exposed to the excessive noise source(s).

- At workplace noise doses equal to or greater than 105 dBA over an eight-hour period, mine operators must ensure the use of both earplug and earmuff type hearing protectors concurrently.

- At no time during the work shift may noise levels exceed 115 dBA. MSHA may issue a citation if sound levels exceed 117dBA (2 dBA error factor) for at least 30 consecutive seconds. When a miner is exposed to 117 dBA for more than 15 minutes the 90 dBA PEL is exceeded and will be enforced instead.

A separate standard for impact/impulse noise is not included in the Standard. Impact/impulse noise will be integrated along with continuous noise in determining a miner’s exposure to the maximum level as well as to all other required levels. MSHA will conduct sampling of an individual miner’s exposure in the hearing zone with a noise dosimeter and a sound level meter using the A-weighting slow-response setting for determining compliance with the 115 dBA maximum level.

If a miner’s noise exposure exceeds the PEL despite the fact that the mine operator is using all feasible engineering and administrative controls*, no MSHA citation will be issued as long as the following conditions exist.

- 1) The mine operator has posted and provided affected miners with copies of any administrative controls being used.
- 2) The mine operator is complying with the following:
 - a) 30 CFR, Part 62.150, which includes enrollment of exposed miners in a Hearing Conservation Program.
 - b) 30 CFR Part 62.160, which requires the use of hearing protectors for miners exposed above the PEL.

* Please note that MSHA determines feasibility of engineering and administrative noise controls on case-by-case basis. MSHA may then establish a “P” code for a piece of equipment or a particular occupation. This is an administrative device that allows MSHA to track situations where feasible engineering and administrative controls do not achieve the PEL.

Key actions required by the mine operator are tabulated below:

If a miner’s noise exposure...	Then... (Action Required by Mine Operator)
...is below the “action level”	None.
...equals or exceeds the “action level,” but does not exceed the “PEL”	<ul style="list-style-type: none"> ·Enroll the miner in a hearing conservation program (HCP). ·Provide hearing protectors to the miner. ·Ensure that the hearing protectors are worn if the miner has a standard threshold shift or it will be longer than 6 months before receiving a baseline audiogram.
...exceeds the “PEL”	<ul style="list-style-type: none"> ·Use all feasible engineering and administrative controls to reduce miner’s noise exposure to the PEL. ·Enroll the miner in an HCP. ·Provide hearing protectors and ensure they are worn, if unable to reduce exposure to the PEL.
...exceeds a TWA ₈ of 105 dBA (the “dual hearing protection level”)	<ul style="list-style-type: none"> ·Same as exceeds the “PEL,” plus provide the miner with both earplug and earmuff type hearing protectors and ensure they are worn concurrently.
...exceeds 115 dBA	<ul style="list-style-type: none"> ·No miners, including those with dual hearing protectors, are permitted to be exposed to sound levels exceeding 115 dBA.

Mine operators are required to establish a system of monitoring that evaluates each miner’s noise exposure sufficiently to determine continuing compliance with the rule. The rule specifies how a miner’s noise dose is to be determined, but otherwise it is performance-oriented and neither the methodology nor the intervals of monitoring are specified.

The MSHA Internet site is continually updated with new materials to help mine operators understand this and other new regulations. As of August 2000, a number of excellent reference materials on noise and noise sampling are available, some of which are listed below.

Information available through the Mine Health and Safety Academy. Call 304-256-3257; fax request to 304-256-3368; email mlord@msha.gov ; or access MSHA’s web site at www.msha.gov				
Name	ID No	Date	Internet Address	Contents
Health Standards for Occupational Noise Exposure – Final Rule (30 CFR, Part 62)		Sept. 1999	http://www.msha.gov/1999noise/noiserules.htm	30 CFR Parts 56/57 - Metal & nonmetal, Mine safety and health, Noise. 30 CFR Part 62 Mine safety & health, Noise. 30 CFR Parts 70 & 71 Coal, mine safety & health, Noise.
Fact Sheet – Health Standard to Protect Miners From Hearing Loss		Sept 1999	http://www.msha.gov/1999noise/noise.htm	Questions and Answers About the New Part 62 Noise Standard
Noise Enforcement Policy - PROGRAM POLICY LETTER NO. P00-IV-3 P00-V-2		Aug 2000	http://www.msha.gov/1999noise/noiserules.htm	Information on how MSHA will enforce the new Part 62 Noise Standard.
Compliance Guide to MSHA’s Occupational Noise Exposure Standard	IG 32	Mar 2000	http://www.msha.gov/1999noise/noiseresources.htm	Frequently asked questions and answers on New Part 62 Standard’s Requirements
Sampling for Silica and Noise – A Handbook for Metal/Nonmetal Miners and Mine Operators	IG 29	Mar 2000	http://www.msha.gov/1999noise/noiseresources.htm	Noise and Dust Sampling Equipment, Calibration, Use and Calculations and Forms
Noise Control Manual – Surface Mining Equipment		Draft on Internet	http://www.msha.gov/1999noise/noiseresources.htm	Steps to take to reduce exposure to noise by operators of various types of mining equipment.
Audiometric Testing Reference Guide for MSHA’s Occupational Noise Exposure Standard (Updated 08/03/2000)		Jul 2000	http://www.msha.gov/1999noise/noiseresources.htm	How tests are to be conducted and interpreted including the steps that must be taken based on test.

Estimating Miner's Noise Exposure

The following is a method for estimating employee noise exposure using a low-cost sound level meter. The first part describes the actual sampling procedure and the second part shows how these readings are then used to determine an employee's noise exposure.

1. Sampling noise with a sound level meter to determine Noise Dose per hour.

1. First, make sure your sound level meter has been calibrated according to the manufacturer's recommendations. Then make sure that it is set to the 'A' scale and that the response time is set to 'slow response'. Then, for each location sampled, do the following steps.
2. At the location to be sampled, take several 1-second readings with the sound level meter and record them on the blank form illustrated in Table 1. Remember, the more readings taken, the more accurate the noise level estimate. (An example of a completed record of sound level readings and corresponding dose/hour values for a single location is illustrated in Table 2.)
3. Use Table 3 to determine the 1-hour dose (Dose per hour) for each sound level reading you made and record these dose per hour numbers next to the sound level readings on your blank form. Note: When getting the dose per hour for the action level, use only the sound levels 80 dBA and above and consider those below 80 dBA to be zero. PEL doses, on the other hand, use only sound levels 90 dBA and above and consider those below 90 dBA to be zero.
4. Take all the 1-hour dose values on your Table 2 record and average them. Record this average in the space provided. These averages will be used later on your final employee dose record (Table 4). Note: Never average sound level meter readings, only dose values.

2. Determining an employee's Noise Dose for a full workday.

1. The blank form for estimating employee exposure is Table 4. (Table 5 is a completed example record of employee noise exposure.)
2. List the following items on your blank Table 4 form: a) The locations and conditions you have measured. b) The average hourly Action Level doses and PEL doses underneath the listed locations and conditions. c) The names of your employees.
3. For each employee, determine and record the number of hours (if any) in a full 24-hour day that the employee works at each of the sampled locations/conditions. Then multiply the hours worked at each location/condition by the average Action Level Dose/Hour listed for that location/condition. This is the employee's Action Level Dose per workday at that location/condition. Record this in the appropriate box for that employee. Do the same for the PEL Dose/Hour. This equals that employee's PEL Noise Dose per shift at that location/condition. Do this for all locations/conditions measured.
4. For each employee, add the doses for all locations/conditions where the employee spends time during the workday to get his/her total exposure for the full workday. (Don't forget to include the time in the lunch room, travel time, etc. Time off work is not counted.) This final full workday Noise Dose percentage is then recorded on the right hand column of the form.

If the Action Level Dose for the full workday exceeds 50 % for any employee you must take the action required by the Standard. If the PEL Dose for the full workday exceeds 100 % you must also take the action required by the Standard.

While MSHA will not rely on your measurements to determine if a person is overexposed, the standard requires that measurements be made.

Table 2.

Example of Table Used to Record Sound Level Meter Measurements and Corresponding Dose/hr Values (See Chart Below)							
Person Conducting Sampling - <u>John W. Doe</u>							
Equipment/Location -		Loader # 20					
Operating Cond. -		Idling				Operating	
Date	SLM dBA	Act. Level Dose per hour	PEL Dose per hour		SLM dBA	Act. Level Dose per hour	PEL Dose per hour
10/22/00	82	4.1	0		93	18.9	18.9
10/22/00	85	6.3	0		95	25.0	25.0
10/22/00	83	4.7	0		97	33.0	33.0
10/22/00	87	8.2	0		92	16.5	16.5
10/22/00	89	10.9	0		89	10.9	0.0
10/22/00	88	9.5	0		88	9.5	0.0
10/22/00	86	7.2	0		91	14.4	14.4
10/22/00	81	3.6	0		94	21.8	21.8
10/22/00	85	6.3	0		92	16.5	16.5
10/22/00	83	4.7	0		90	12.5	12.5
Sum		65.5	0			178.9	158.5
No. of Readings		10	10			10	10
Avg Dose/hr Exposed		6.55	0			17.9	15.9

Table 3.

Chart to Convert Sound Level to Dose Per Hour				
SLM Reading, dBA	Dose per hr of exposure		SLM Reading dBA	Dose per hr of exposure
80	3.13		98.0	38
81	3.59		99.0	44
82	4.12		100	50
83	4.74		101	57
84	5.44		102	66
85	6.25		103	76
86	7.18		104	87
87	8.25		105	100
88	9.47		106	115
89	10.9		107	132
90	12.5		108	152
91	14.4		109	174
92	16.5		110	200
93	18.9		111	230
94	21.8		112	264
95	25.0		113	303
96	28.7		114	348
97	33.0		115	400

Table 4.

Table Used to Determine Total Dose Per Shift

Name of Person	Oper- ating		Oper- ating		Oper- ating		Oper- ating		Oper- ating		Oper- ating		Oper- ating		Oper- ating		Oper- ating		Total Dose/ Shift		
	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling	Idling			
Avg. A.L. Dose/hr -																					
Avg. PEL Dose/hr -																					
Hours/shift																					
A.L. Dose/shift																					
PEL Dose/shift																					
Hours/shift																					
A.L. Dose/shift																					
PEL Dose/shift																					
Hours/shift																					
A.L. Dose/shift																					
PEL Dose/shift																					
Hours/shift																					
A.L. Dose/shift																					
PEL Dose/shift																					

Table 5.

Example of Table Used to Determine Total Dose Per Shift																
	Loader #1		Loader #2		Truck #1		Truck #2		On Dozer		Near Conveyor		Near Crusher		Lunch Room	Total Dose/Shift
Name of Person	Idling	Operating	Idling	Operating	Idling	Operating	Idling	Operating	Idling	Operating	Idling	Operating	Idling	Operating		
Avg. A.L. Dose/hr -	10.6	11.3	10.9	11.5	9.8	11.0	9.4	10.6	10.9	11.6	10.0	11.0	11.1	11.9	10.4	
Avg. PEL Dose/hr -	0.0	9.8	7.3	9.5	0.0	7.3	0.0	2.1	4.5	10.5	0.0	7.3	7.4	11.9	0.0	
Joe Miner																
Hours/shift	1	5								0.75				0.5	0.75	
A.L. Dose/shift	10.6	56.5	0	0	0	0	0	0	0	8.7	0	0	0	5.95	7.8	89.55
PEL Dose/shift	0	49	0	0	0	0	0	0	0	7.875	0	0	0	5.95	0	62.83
B. Safe																
Hours/shift	0		1	6										0.25	0.75	
A.L. Dose/shift	0	0	10.9	69	0	0	0	0	0	0	0	0	0	2.975	7.8	90.68
PEL Dose/shift	0	0	7.3	57	0	0	0	0	0	0	0	0	0	2.975	0	67.28
U. Quitcherbellaiken																
Hours/shift					0.5	6.75										0.75
A.L. Dose/shift	0	0	0	0	4.9	74.25	0	0	0	0	0	0	0	0	7.8	86.95
PEL Dose/shift	0	0	0	0	0	49.28	0	0	0	0	0	0	0	0	0	49.28
B. Good																
Hours/shift							0.5	6.75								0.75
A.L. Dose/shift	0	0	0	0	0	0	4.7	71.55	0	0	0	0	0	0	7.8	84.05
PEL Dose/shift	0	0	0	0	0	0	0	14.18	0	0	0	0	0	0	0	14.18
I. M. Dirty																
Hours/shift									0.5	5	0	0.5	0.5	0.75	0.75	
A.L. Dose/shift	0	0	0	0	0	0	0	0	5.45	58	0	5.5	5.55	8.925	7.8	91.23
PEL Dose/shift	0	0	0	0	0	0	0	0	2.25	52.5	0	3.65	3.7	8.925	0	71.03
U. R. Clean																
Hours/shift											0.5	6.25		0.5	0.75	
A.L. Dose/shift	0	0	0	0	0	0	0	0	0	0	5	68.75	0	5.95	7.8	87.5
PEL Dose/shift	0	0	0	0	0	0	0	0	0	0	0	45.63	0	5.95	0	51.58

Frequently-Asked Questions

What is a “hearing conservation program”?

An HCP is a program established by a mine operator, which includes provisions for assessing miners’ noise exposure; audiometric (hearing) tests; providing and using hearing protectors; training; and record keeping.

What role do miners have when noise exposure assessments are conducted?

When noise exposure monitoring is conducted, mine operators must provide miners and their representatives with prior notice of the date and time of the monitoring, and afford them an opportunity to observe the monitoring.

Does a miner have a right to know the results of his or her noise exposure assessments?

A mine operator must notify a miner in writing within 15 days when his or her exposure is at or above 85 dBA (the action level); or exceeds 90 dBA (the PEL); or exceeds 105 dBA (dual hearing protection level). The notice must include the noise exposure determination and the corrective action being taken by the mine operator.

What are the requirements for audiometric (hearing) tests?

Audiometric testing must be offered to all miners who are enrolled in an HCP. Miners participate voluntarily in the tests. A “**baseline audiometric test**” must be offered within 6 months of enrollment in an HCP. (If a mobile test van is used, the baseline test may be conducted within 12 months.) After establishing the miner’s baseline audiogram, an “**annual audiogram**” must be offered to the miner as long as he or she remains in the HCP.

Mine operators are required to notify miner’s in writing of the results their audiometric tests, and maintain a copy of the test records for the duration of a miner’s employment, plus at least 6 months.

What is required if a miner’s annual audiogram shows hearing loss?

If the hearing loss is serious enough to result in a “**standard threshold shift**”—an average hearing loss of 10 dB or more at 2000, 3000 and 4000 Hz in either ear—the rule requires mine operators to provide follow-up audiometric evaluations and take corrective action, such as reviewing the effectiveness of their engineering and administrative controls, offering the miner different hearing protection, and training.

Are mine operators required to report to MSHA the results of miners’ audiometric tests?

A mine operator must notify MSHA when a miner’s audiometric test shows a 25 dB loss or more at 2000, 3000, and 4000 Hz in either ear, unless a physician or audiologist has determined that

the loss is neither work-related nor aggravated by occupational noise exposure. A hearing loss of this magnitude is considered a “**reportable hearing loss**,” and the mine operator is required to submit a Form 7000-1 to MSHA, as required by Part 50 for reporting occupational injuries and illnesses.

When are miners required to wear hearing protectors?

Mine operators must provide and ensure that hearing protectors are worn by all miners whose exposure exceeds the PEL (where feasible controls do not reduce a miner’s noise exposure to the PEL.) When a miner’s noise exposure is at or above the “action level” but does not exceed the PEL, the mine operator must provide and ensure that hearing protectors are worn, only if the miner has incurred a standard threshold shift, or if more than 6 months will pass before the miner can be given a baseline audiogram.

What types of hearing protectors must be provided?

When hearing protectors are required, the mine operator must allow the miner to choose from at least two muff type and two plug type hearing protectors. The operator must ensure that the hearing protector is in good condition and is fitted and maintained in accordance with the manufacturer’s instructions. Hearing protectors must be provided at no cost to the miner.

When are miners required to wear both earplugs and earmuffs?

If during any work shift, a miner’s noise exposure exceeds a TWA_8 of 105 dBA (the “dual hearing protection level”), the mine operator must provide and ensure that the miner concurrently wears both earplug and an earmuff type hearing protectors.

What type of training for miners is required in the final rule?

Within 30 days of a miner’s enrollment in an HCP, the mine operator must provide him or her with specialized training about the effects of noise on hearing; the purpose and value of wearing hearing protectors; the advantages and disadvantages of the hearing protectors being offered; miners’ and operators’ tasks in maintaining noise controls, among other topics.

Does the rule require a mine operator to keep any written records?

For each miner enrolled in a hearing conservation program, the mine operator must keep a copy of the miner’s exposure notification, audiometric test records and results, and certification of training.

Noise Sampling Protocols

Sampling Sequence

- 1) Sampling Method
 - a) SLM, Dosimeter, or Both
 - b) Pick Individuals or Areas to be Sampled
- 2) Conduct Sampling
- 3) Document Sampling
- 4) Evaluate Sampling Results
- 5) If Necessary, Control Exposures

If SLM Is Used:

- 1) Pre-Calibrate
- 2) Obtain Numerous Noise Readings As Close To Worker As Practical
- 3) Monitor Worker (To Enable Noise Measurement To Be Related To Work Tasks)
- 4) Note Time Spent On Each Task
- 5) Post-Calibrate
- 6) Document Entire Process

If Dosimeter Is Used:

Pre-Calibrate

- 1) Hang Dosimeter
- 2) Monitor Worker (To Enable Noise Measurement To Be Related To Work Tasks)
- 3) Spot Check Exposures With SLM
- 4) Remove Dosimeter
- 5) Post-Calibrate
- 6) Document Entire Process

Checking Calibration of an SLM

Should Be Factory Calibrated Annually (Or as recommended by manufacturer.)

- 1) Calibration Should Be Checked Each Use
- 2) Insure Fresh Batteries in Both SLM and Calibrator
- 3) Insert SLM Microphone Into Calibrator
- 4) Check Noise Level of Calibrator
- 5) Turn On Calibrator
- 6) Check Reading on SLM - Must Be ± 1 dBA

Checking Calibration of a Dosimeter

Should Be Factory Calibrated Annually (Or as recommended by manufacturer.)

- 1) Calibration Should Be Checked Each Use Using Field Calibrator (Note: Field calibrators, themselves, should be calibrated, according to manufacturer's recommendations.)
- 2) Insure Fresh Batteries in Both Dosimeter and Calibrator
- 3) Insert Microphone Into Calibrator
- 4) Check Noise Level(s) of Calibrator
- 5) Turn On Calibrator

- 6) Check Reading(s) on SLM - Must Be ± 1 dBA

Dosimeter Sampling

Clip Dosimeter to Subject's Belt, Put in Pocket, Etc.

- 1) Clip Microphone to Center of Shoulder, Pointing Up (Pick "Noisiest" Shoulder)
- 2) If Necessary, Use Clips or Duct Tape to Attach Microphone Cord to Clothing

Dosimeter Sampling - Micro 15

Press "ON-OFF" to Turn On Dosimeter

- 1) Press And Hold "ON-OFF" And "PAUSE" For 5 Seconds to Reset (Erases All Data)
- 2) Press "RUN" to Start Sampling
- 3) Press and Hold "SOUND LEVEL" to Check Current Noise Level (Displays in dBA)
- 4) Press "HTL DOSE" to Check PEL Noise Dose (Displays in % Noise Dose)
- 5) Press "LTL DOSE" to Check Action Level Noise Dose (Displays in % Noise Dose)
- 6) Press And Hold "ON-OFF" For 5 Seconds To Turn Off Dosimeter

Dosimeter Sampling – AMETEK

- 1) Slide Up Window and Turn On Toggle Switch
- 2) Press Black Button To Show Different Displays
- 3) STBY is "Standby" Mode (Dosimeter Not Sampling); In Order To Conduct Sampling, Dosimeter Cannot Be In Standby Mode
- 4) DOSE % is Action Level Noise Dose
- 5) DOSE% (blinking) is PEL Noise Dose
- 6) SLM is Current Noise Level (in dBA)
- 7) Don't Confuse DOSE % With Projected Dose %. If The Display Shows "TIME" Under "DOSE %" This Is The Noise Dose That Would Be Expected After 8 Hours If Average Noise Levels To That Point Remain Unchanged \

Documentation for Noise Sampling

- 1) Your Name, Date, SLM/Dosimeter ID #
- 2) Pre- and Post-Calibration