Safety and Health Audit for Aggregate Operators – Long Version

Surface Metal/Nonmetal

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

Instruction Guide Series
IG 14a

2001

Visit the Mine Safety and Health Administration website at
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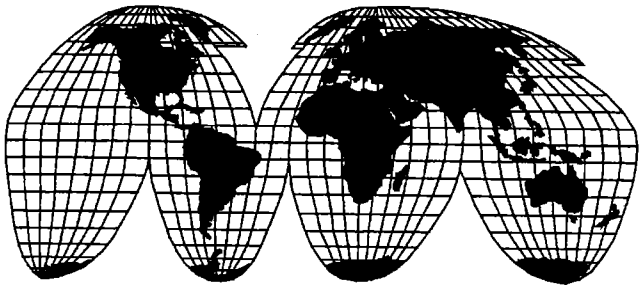

Safety and Health Audit for Aggregate Operators – Long Version

Surface Metal/Nonmetal

U.S. Department of Labor
Elaine L. Chao
Secretary

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Safety and Health Compliance Audit for Aggregate Operators Surface Metal/Nonmetal Long Version

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Any effective safety plan has to include a method for checking safety on a systematic basis. Safety audits are one way for accomplishing this goal. A good audit will establish a baseline from which you can begin to evaluate your operation and make changes possible to improve safety and health. Attached is an example of a safety audit that was developed by industry representatives and MSHA for you to use to check safety and health conditions at your operation.

This Safety and Health Audit for Aggregate Operators - Long Version (IG 14a) is a companion to the Safety and Health Audit for Aggregate Operators (IG-14) printed in January 2000. The audit information contained in this package is a complete audit for all of 30 Code of Federal Regulations Part 56. This audit is an extensive package that is intended to cover all of the Surface Metal/Nonmetal Part 56 regulations.

This audit package is intended to be used as a supplement to check safety and health conditions at your operation, and to assist in establishing a baseline from which you can begin to evaluate your operation and make changes to improve safety and health.

Directions for Using the Self Audit

This safety audit consists of descriptions of all of the standards contained in 30 CFR Part 56. The first column consists of the description of the regulation with questions (second column) that correspond to that regulation. In some cases only one question may be necessary, in others several questions may be necessary for the description.

Responses should fall into three categories, (YES) (NO) and (N/A). If you answer (YES), generally no further action is necessary.

A **(NO)** response generally will require further action and an explanation of the defective condition/location/practice. If you answer (NO) to any question, further action will be necessary and you should complete the column (Corrective Action) and indicated action taken or flag this area for corrective action. In order to make this audit a positive vehicle for improving safety at your mining operation, any (NO) answer should include a corrective date entry (the last column on the audit).

Check **(N/A)** if the description is not applicable to your operation.

The **(C/R/T)** column involves the areas of:

Certification:
This standard requires certification record by manufacturer.

Record:
A record is required to be kept regarding this standard.

Training:
This standard requires training.

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Safety and Health Compliance Audit for Aggregate Operators
Surface Metal and Nonmetal

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
GROUND CONTROL								
Wall bank and slope stability	Are all walls, banks, or slopes stable where persons work or travel?					56.3130		
	Will the height and width of benches support equipment necessary to clean or scale any wall, bank, or slope?							
Pit or quarry wall perimeter	Has loose or unconsolidated material been sloped to the angle of repose or stripped back for at least 10 feet from the top of the pit or quarry wall?					56.3131		
Correction of hazardous conditions	Are ground conditions that create a hazard to persons taken down or supported before other work or travel is permitted in the affected area?					56.3200		
	Is the area posted with a warning against entry?							
	Is a barrier installed to impede unauthorized entry?							

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Scaling Tools	Is a scaling bar provided and is of a length and design that will allow removal of loose material without exposing persons performing this work?					56.3202		
Rock Fixtures	When rock bolts and accessories are used for ground control --					56.3203	C	
	Has a manufacturer's certification been obtained that the material was manufactured and tested in accordance with ASTM specifications?							
	Has this certification been made available to an authorized representative of the Secretary?							
	If fixtures and accessories are not addressed in ASTM, they may be used, provided they –							

* C=Certification / R=Record / T=Training

DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Have they been successful in supporting the ground in an area of the mine with similar conditions?							
Have they been tested and shown to be effective in supporting ground in a similar type area of the mine?							
Are bearing plates used with fixtures when necessary for effective ground control?							
Are the diameter of the finishing bits within a tolerance of plus or minus 0.030 inch of the manufacturer's recommended hole diameter for the anchor used?							
Are you certain that damaged or deteriorated cartridges of grouting material are not used?							
When rock bolts tensioned by torquing are used as a means of ground control--selected tension levels shall be –							

* C=Certification / R=Record / T=Training

DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Is the tension 50 percent of either the yield point of the bolt or the anchorage capacity of the rock?							
Is the tension no greater than the yield point of the bolt or anchorage capacity of the rock?							
Is the torque of the first bolt, every tenth bolt, and the last bolt installed in each work area during the shift accurately determined?							
Is corrective action taken if the torque does not fall within the installation torque range?							
Is the first fixture installed in each work place tested to withstand 150 foot-pounds of torque?							
If the fixture rotates in the hole, is a second fixture tested in the same manner? (As above)							
If the second fixture turns, is corrective action taken?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	When other tensioned and non-tensioned fixtures are used, are test methods established to verify their effectiveness?							
	Does the mine operator certify that tests were conducted and make the certification available to an authorized representative of the Secretary?							
Secondary breakage	Prior to secondary breakage operations, is the material to be broken, other than hanging material, positioned or blocked to prevent movement?					56.3400		
	Is the breakage performed from a location which will not expose persons to danger?							
Examination of ground conditions	Is the ground condition examination being performed by an experienced person that is designated by the operator?					56.3401		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are the examinations by the appropriate supervisors or other designated person including a test of ground conditions in areas where work is to be performed, prior to work commencing, after blasting, and as ground conditions warrant during the shift?							
	Are the highwalls and banks adjoining travelways being examined weekly or more often if changing ground conditions warrant?							
Activity between machinery or equipment and the highwall and bank	Is work or travel being done between machinery or equipment and the highwall or bank where the machinery or equipment may hinder escape from falls or slides of the highwall or bank?					56.3430		
FIRE PREVENTION								
Abandoned electric circuits	Are all abandoned electric circuits deenergized and isolated so that they cannot become energized inadvertently?					56.4011		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Smoking and use of open flames	Is smoking or an open flame being used where flammable or combustible liquids, including greases, or flammable gases are -- a) used or transported in a manner that could create a fire hazard? Or b) stored or handled?					56.4100		
Warning Signs *(Accounted for 1% of S&G/Crushed Stone violations in 1997)*	Are readily visible signs prohibiting smoking and open flames posted where a fire or explosion hazard exists?					56.4101		
Spillage or Leakage	Is flammable or combustible liquid spillage or leakage being removed in a timely manner or controlled to prevent a fire hazard?					56.4102	C/R	
Fueling Internal Combustion Engines	Are internal combustion engines being shut off before refueling when the fuel tanks are an integral part of the equipment? (Not applicable to diesel powered equipment)					56.4103		

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Combustible Waste	Are waste materials, including liquids, accumulating in quantities that could create a fire hazard?					56.4104		
	Are waste or rags containing flammable or combustible liquids that could create a fire hazard being placed in covered metal containers or other equivalent containers with flame containment characteristics?							
Surface Electric Substations and Liquid Storage Facilities	Are combustible materials being stored or allowed to accumulate within 25 feet of -- a) electric substations? b) unburied, flammable or combustible liquid storage tanks? c) any group of containers used for storage of more than 60 gallons of flammable or combustible liquids?					56.4130		
	Is the area within 25-foot perimeter being kept free of dry vegetation?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
General Requirements Firefighting Equipment	For fighting fires that could endanger persons, does each mine have -- a) onsite firefighting equipment for fighting fires in their early stages? b) onsite firefighting equipment for fighting fires beyond their early stages, or the mine has made prior arrangements with a local fire department to fight such fires?					56.4200		
	Is the onsite firefighting equipment-- a) of the type, size, and quantity that can extinguish fires of any class which would occur as a result of the hazards present? b) strategically located, readily accessible, plainly marked, and maintained in fire-ready condition?							
Firefighting Equipment *(Accounted for 2% of S&G/Crushed Stone violations in 1997)*	Are fire extinguishers inspected visually at least once a month to determine if they are fully charged and operable?					56.4201	C/R	
	Is the inspection dated and signed?						R	

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Fire Hydrants	If fire hydrants are part of the mine's firefighting system, are the hydrants provided with-- a) uniform fittings or readily available adapters for onsite fire-fighting equipment? b) readily available wrenches or keys to open the valves? c) readily available adapters capable of connecting hydrant fittings to the hose equipment of any fire-fighting organization relied upon by the mine?					56.4202		
Extinguisher recharging or replacement	Are the fire extinguishers being recharged or replaced with a fully charged extin-guisher promptly after any discharge?					56.4203		
Surface Self-Propelled Equipment	Is a fire extinguisher provided on the equipment if a fire or its effect could impede escape from self-propelled equipment?					56.4230		

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Is a fire extinguisher provided on the equipment or within 100 feet of the equipment if a fire or its effect would not impede escape from the equipment but could affect the escape of other persons in the area?							
Is a manually operated fire suppression system used as an alternative to fire extinguishers?							
Are the fire extinguishers of the fire suppression system of a type and size that can extinguish fires of any class in their early stages which could originate from the equipment's inherent fire hazards?							
Is the fire extinguisher or manual actuator for the fire suppression system located to permit their use by persons whose escape could be impeded by fire?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Surface Fire-fighting, Evacuation, and Rescue Procedures	Has the mine operator established an emergency firefighting, evacuation, and rescue procedure for the surface portion of their operations?					56.4330		
	Have these procedures been coordinated in advance with available firefighting organizations?							
	Have fire alarm procedures or systems been established to promptly warn every person who could be endangered by a fire?							
	Are the fire alarm systems maintained in operable condition?							
Surface Fire-fighting Drills	Are the emergency fire-fighting drills being held at least once every six months for persons assigned surface firefighting responsibilities by the mine operator?					56.4331		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
FLAMMABLE AND COMBUSTIBLE LIQUIDS AND GASES								
Use Restrictions	Are flammable liquids being used for cleaning?					56.4400		
	Are solvents being used near an open flame or other ignition source, near any source of heat, or in an atmosphere that can elevate the temperature of the solvent above the flash point?							
Storage Tank Foundations	Are fixed, unburied, flammable or combustible liquid storage tanks mounted on firm foundations?					56.4401		
	Is piping provided with flexible connections or other special fittings where necessary to prevent leaks caused by tanks settling?							
Safety Can Use	Are small quantities of flammable liquids drawn from storage kept in safety cans labeled to indicate the contents?					56.4402		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Surface Storage Facilities	Are the storage tanks for flammable or combustible liquids-- a) capable of withstanding working pressures and stresses and compatible with the type of liquid stored, b) maintained in a manner that prevents leakage, c) isolated or separated from ignition sources to prevent fire or explosion d) vented or otherwise constructed to prevent development of pressure or vacuum as a result of filling, emptying, or atmospheric temperature changes?					56.4430		
	Are the vents for storage of Class I, II or IIIA liquids isolated from ignition sources? Note: These pressure relief requirements do not apply to tanks used for storage of Class IIIB liquids that are larger than 12,000 gallons in capacity.							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are all piping, valves, and fittings -- a) capable of withstanding working pressures and stresses? b) compatible with the type of liquid stored? c) maintained in a manner that prevents leakage?							
	Are the fixed, unburned tanks located where escaping liquid could present a hazard to persons being provided with– a) containment for the entire capacity of the largest tank? b) drainage to a remote impoundment area that does not endanger persons? Note: Storage of only Class IIIB liquids does not require containment of drainage to remote impoundment.							
INSTALLATION/CONSTRUCTION/MAINTENANCE								
Heat Sources	If a fire hazard could be created, are the heat sources capable of producing combustion separated from combustible materials?					56.4500		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Fuel Lines	Are the fuel lines equipped with valves capable of stopping the flow of fuel at the source and located and maintained to minimize fire hazards? Note: This does not apply to fuel lines on self- propelled equipment.					56.4501		
Battery Charging Stations	Are the battery charging stations ventilated with a sufficient volume of air to prevent the accumulation of hydrogen gas?					56.4502		
	Is smoking, use of open flames, or other activities that could create an ignition source prohibited at the battery charging station during battery charging?							
	Are readily visible signs prohibiting smoking or open flames posted at battery charging stations during battery charging?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Conveyor Belt Slippage	Are the surface belt conveyors within confined areas where evacuation would be restricted in the event of a fire resulting from belt-slippage equipped with a detection system capable of automatically stopping the drive pulley?					56.4503		
	Is a person attending the belt at the drive pulley when it is necessary to operate the conveyor while temporarily by-passing the automatic function?							
Exits for Surface Building and Structures	Are the surface buildings and structures in which persons work, equipped with a sufficient number of exits to permit prompt escape in case of fire?					56.4530		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Surface Flammable or Combustible Liquid Storage Buildings or Rooms	Are the surface storage buildings or storage rooms in which flammable or combustible liquids, including grease, are stored and that are within 100 feet of any person's work station ventilated with a sufficient volume of air to prevent the accumulation of flammable vapors?					56.4531		
	Are the building or rooms- a) constructed to meet a fire resistance rating of at least one hour? b) equipped with an automatic suppression system? c) equipped with an early warning fire detection device that will alert any person who could be endangered by a fire, provided that no person's work station is in the building?							
	Is flammable or combustible liquids in use for day-to-day maintenance and operational activities considered in storage under this standard?							

* C=Certification / R=Record / T=Training

DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
WELDING/CUTTING/COMPRESSED GAS							
	When halogenated fire extinguishing agents to meet the requirements of this standard shall be limited to Halon 1211 ($CBrClF_2$) and Halon 9 ($CBrF_3$) are used in confined or unventilated areas, are precautions based on the manufacturer's use instructions being taken so that the gases produced by thermal decomposition of the agents are not inhaled?					56.4600(b)		
Oxygen Cylinder Storage	Are oxygen cylinders being stored in rooms or areas used or designated for storage of flammable or combustible liquids, including grease?					56.4601		
Gases and Regulators	Are gauges and regulators used with oxygen or acetylene cylinders kept clean and free of oil and grease?					56.4602		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Closure of Valves	To prevent accidental release of gases from hoses and torches attached to oxygen and acetylene cylinders or to manifold systems, are the cylinders or manifold system valves closed when--					56.4603		
	a) the cylinders are moved?							
	b) the torch and hoses are left unattended?							
	c) the task or series of tasks are completed?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Preparation of pipelines or containers	Before welding, cutting, or applying heat with an open flame to pipelines or containers that have contained flammable or combustible liquids, flammable gases or explosive solids, have the pipelines or containers-- a) been drained, ventilated, and thoroughly cleaned of any residue? b) been vented to prevent pressure buildup during the application of heat? c) been filled with an inert gas or water, where compatible? d) been determined to be free of flammable gases by a flammable gas detection device prior to and at frequent intervals during the application of heat?					56.4604		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
AIR QUALITY, RADIATION, AND PHYSICAL AGENTS								
Exposure Limits for Airborne Contaminants	Is the exposure to airborne contaminants exceeding, on the 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"?					56.5001		
	Is the 8-hour time-weighted average airborne concentration of asbestos dust to which employees are exposed exceeding 2 fibers per millliliter greater that 5 microns in length, as determined by the membrane filter method at 400-450 magnification (4 millimeter objective) phase contrast illustration?							

* C=Certification / R=Record / T=Training

	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is any employee exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers longer than 5 micrometers, per milliliter of air, as determined by the membrane filter methods over a minimum sampling time of 15 minutes?							
	Is one of the following asbestos minerals being used--a) chrysotile b) amosite c) crocidolite d) anthophylite asbestos e) tremolite asbestos f) actinolite asbestos							
	Are employees withdrawn on from areas where there is present an airborne contaminant given a "C" designation by the Conference and the concentration exceeds the threshold limit value listed for that contaminant?							
Exposure Monitoring	Are dust, gas, mist and fume surveys conducted as frequently as necessary to determine the adequacy of control measures?					56.5002		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Control of Exposure to Airborne Contaminants	Are the controls of an employee's exposure to harmful airborne contaminants being done, insofar as feasible, by prevention of contamination, removal by exhaust ventilation, or by dilution with uncontaminated air?					56.5005		
	Are employees working for reasonable periods of time in concentrations of airborne contaminants exceeding permissible levels protected by appropriate respiratory protective equipment?							

* C=Certification / R=Record / T=Training

DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
When respiratory protective equipment is used, is a program for selection, maintenance, training, fitting, supervision cleaning, and use meeting the minimum requirements? a) Are the respirators MSHA-approved and suitable for the purpose intended? b) Are the employees using the protective equipment in accordance with training and instruction? c) Is the respirator program consistent with the requirements of ANSI Z88.2 - 1969? d) When respiratory protection is used in atmosphere immediately harmful to life, is at least one other person with backup equipment and rescue capability available in the event of failure of the respiratory equipment?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Restricted Use of Chemicals	Is a competent person under laboratory conditions approved by a nationally recognized agency acceptable to the Secretary using or storing the following chemical substances? • Carbon tetrachloride • Phenol • 4-Nitrobiphenyl • Alpha-naphthylamine • 4,4-Methylene Bis , (2-chloraniline) • Methyl-chloromethyl ether • 3,3 Dichlorobenzidine • Bis (chloromethyl) ether • Beta-naphtylamine • Benzidine • 4-Aminodiphenyl • Ethyleneimine • Beta-propiolactone • 2-Acetylaminofluorene • 4-Dimethylaminobenzene • N-Nitrosodimethylamine					56.5006		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Physical Agents Exposure Limits for Noise	Is an employee being permitted an exposure to noise in excess of that specified in the table below? Duration (hrs) dBA 8 90 6 92 4 95 3 97 2 100 1 ½ 102 1 105 ½ 110 1/4 or less 115					56.5050		
	Are noise level measurements made using a sound level meter meeting specifications for type 2 meters contained in ANSI standard S1.4 - 1971?							
EXPLOSIVES								
Separation of stored explosive materials	Are detonators stored in the same magazine with other explosive material?					56.6100		

* C=Certification / R=Record / T=Training

	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	When stored in the same magazine, are the blasting agents separated from explosives, safety fuse, and detonating cord to prevent contamination.							
Areas around explosive material storage facilities	Are the areas surrounding storage facilities for explosive material clear of rubbish, brush, dry grass and trees for 25 feet in all directions? NOTE: Live trees 10 feet or taller do not have to be removed.					56.6101		
	Are other combustibles stored or allowed to accumulate within 50 feet of explosive material?							
	Are combustible liquids stored in a manner that ensures drainage will occur away from the explosive material storage facility in case of tank rupture?							
Explosive materials storage practices	Is the explosive material stored in a manner to facilitate use of the oldest stock first?					56.6102		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is the explosive material stored according to brand and grade in such a manner as to facilitate identification?							
	Is the explosive material stacked in a stable manner but not more than 8 feet high?							
	Are the explosives and detonators stored in closed nonconductive containers? NOTE: Nonelectric detonating devices may be stored on nonconductive racks provided the case-insert instructions and the date-plant-shift code are maintained with the product?							
Storage	Are the detonators and explosives stored in magazines?					56.6130		
	Are packaged blasting agents stored in a magazine or other facility which is ventilated to prevent dampness and excessive heating, weather resistant, and locked or attended?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Do the facilities other than magazines used to store blasting agents contain only blasting agents?							
	Are bulk blasting agents stored in weather-resistant bins or tanks which are locked, attended, or otherwise inaccessible to unauthorized entry?							
	Are the facilities, bins or tanks posted with the appropriate United States Department of Transportation placards or other appropriate warning signs that indicate the contents and are visible from each approach?							
Location of explosive material storage facilities	Are the storage facilities for any explosive material-- a) located so that the forces generated by a storage facility explosion will not create a hazard to occupants in mine buildings and will not damage dams or electrical substations?					56.6131		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	b) detached structures located outside the blast area and a sufficient distance from power lines so that the power lines, if damaged, would not contact the magazine? **Related regulations 27 CFR Part 55 (55.218 and 55.220)							
Magazine Requirements	1. Are the magazines --					56.6132		
	a) structurally sound?							
	b) noncombustible or the exterior covered with fire-resistant material?							
	c) bullet resistant?							
	d) made from non-sparking material on the inside?							
	e) ventilated to control dampness and excessive heating within the magazine?							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
f) posted with the appropriate United States Department of Transportation placards or other appropriate warning signs that indicate the contents and are visible from each approach so located that a bullet passing through any of the signs will not strike the magazine?							
g) kept clean and dry inside?							
h) unlighted or lighted by devices that are specifically designed for use in magazines and which do not create a fire or explosion hazard?							
i) locked when unattended?							
j) used exclusively for the storage of explosive material except for essential nonsparking equipment used for the operation of the magazine?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	2) Are metal magazines equipped with electric bonding connections between all conductive portions so the entire structure is at the same electric potential?							
	3) Is suitable electrical bonding methods used which includes welding, riveting, or the use of securely tightened bolts where individual metal portions are joined?							
	4) Are conductive portions of nonmetal magazines grounded?							
	5) Are electrical switches and outlets located on the outside of the magazine?							
Powder Chests	1) Are the powder chests (day boxes) --					56.6133		
	a) structurally sound, weather-resistant, equipped with a lid or cover, and with only nonsparking material inside?							

* C=Certification / R=Record / T=Training

DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
b) posted with appropriate United States Department of Transportation placards or other appropriate warning signs that indicate the contents and are visible from each approach?							
c) locked out of the blast area once loading has been completed?							
d) locked or attended when containing explosive material?							
e) emptied at the end of each shift with the contents returned to a magazine or other storage facility, or attended?							
2) Are the detonators kept in chests separate from explosives or blasting agents, unless separated by 4 inches of hardwood or equivalent or a laminated partition?							

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
TRANSPORTATION								
Delivery to storage or blast site areas	Is explosive material transported without undue delay to the storage area or blast site?					56.6200		
Separation of transported explosive material	Are detonators of more than 1000 being transported in a vehicle or blasting agents - a) maintained in the original packaging as shipped from the manufacturer?					56.6201		
	b) separated from explosives or blasting agents by 4 inches of hardwood or equivalent or a laminated partition?							
	-- is the hardwood or equivalent fastened to the vehicle or conveyance?							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
-- when a laminated partition is used, is the operator following the provisions of the Institute of Makers of Explosives Safety Library Publication No. 22, (May 1993) and the "Generic Loading Guide for the IME-22 Container," (Oct 1993)?							
Are detonators in quantities of 1000 or fewer being transported with explosives or blasting agents--							
--kept in a closed container?							
--separated from explosives or blasting agents by 4 inches of hardwood or equivalent, or a laminated partition.							
--is the hardwood or equivalent fastened to the vehicle or conveyance?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	--when a laminated partition is used, is the operator following the provisions of the Institute of Makers of Explosives Safety Library Publication No. 22 (May 1993) and the "Generic Loading Guide for the IME-22 Container, (Oct. 1993)?							
Vehicles	1) Are vehicles containing explosive material --					56.6202		
	a) maintained in good condition and complying with the requirements of Subpart M?							
	b) equipped with sides and enclosures higher than the explosive material being transported or is the explosive material secured to a nonconductive pallet?							
	c) equipped with a cargo space for containing the explosive material? (NOTE: passenger areas are not considered cargo space)							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
d) equipped with at least two multipurpose dry chemical fire extinguishers or one such extinguisher and an automatic fire suppression system?							
e) posted with warning signs that indicate the contents and are visible from each approach?							
f) occupied only by persons necessary for handling the explosive material?							
g) attended or the cargo compartment locked, except when parked at the blast site and loading is in progress?							
h) secured while parked?							
--Are the brakes set?							
--Are the wheels chocked if movement could occur?							
--Unless powering a device being used in the loading operation, is the engine shut off?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	2) Do the vehicles containing explosives have--							
	a) sparking material exposed in the cargo space?							
	b) only properly secured non-sparking equipment in the cargo space with the explosives?							
	3) Do the vehicles used for dispensing bulk explosive material –							
	a) have zinc or copper exposed in cargo space?							
	b) provide any enclosed screw-type conveyors with protection against internal pressure and fractional heat?							
Locomotives	1) Is explosive material being transported on a locomotive?					56.6203		
	2) Are covered, electrically insulated cars used when explosive material is hauled by trolley locomotive?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Hoists	1) Is the hoist operator notified before explosive material is transported in hoist conveyances?					56.6204		
	2) Is explosive material transported in hoist conveyances placed within a container which prevents shifting of cargo that could cause detonation of the container by impact or by sparks?							
	3) If the manufacturer's container is used, is it secure to a nonconductive pallet?							
	4) When explosives are transported, are they secured so as not to contact any sparking material?							
	5) Is explosive material transported during a mantrip?							
Conveying Explosives by Hand	1) Are closed, nonconductive containers used to carry explosives and detonators to and from blast sites?					56.6205		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	2) Are separate containers used for explosives and detonators?							
Control of Blasting Operations	1) Are direct blasting operations and related activities being done by persons trained and experienced in the handling and use of explosive material?					56.6300		
	2) Are trainees and inexperienced persons working in the immediate presence of persons trained and experienced in the handling and use of explosive material?							
Blasthole Obstruction Check	1) Before loading blast holes, are they being checked, and wherever possible, cleared of obstructions?					56.6301		
Separation of Explosive Material	1) Are explosives and blasting agents kept separated from detonators until loading begins?					56.6302		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Initiation Preparation	1) Are primers made up only at the time of use and as close to the blast site as conditions allow?					56.6303		
	2) Are primers prepared with the detonator contained securely and completely within the explosive or contained securely and appropriately for its design in the tunnel or cap well?							
	3) When using detonating cord to initiate another explosive, is a connection prepared with the detonating cord threaded through, attached securely to, or otherwise in contact with the explosive?							
Primer Protection	1) Is tamping done directly on a primer?					56.6304		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	2) Are rigid cartridges of explosives or blasting agents that are 4 inches (100 millimeters) in diameter or larger being dropped on the primer except where blast hole contains sufficient depth of water to protect the primer from impact? (NOTE: Slit package of prill, water gel, or emulsions are not considered rigid cartridges and may be drop loaded)							
Unused Explosive Material	1) Is unused explosive material moved to a protected location as soon as practical after loading operations are completed?					56.6305		
Loading, Blasting, and Security	1) When explosive material or initiating systems are brought to the blast site, is the blast site attended, barricaded, and posted with warning signs, such as "Danger," "Explosives," or "Keep Out," or flagged against unauthorized entry?					56.6306		

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
2) Are vehicles and equipment driven over explosive material or initiating systems in a manner which could contact the material or system, or create other hazards?							
3) Once loading begins, are the only activities permitted within the blast site, those activities directly related to the blasting operation and the activities of surveying, stemming, sampling of geology, and reopening of holes? NOTE: Haulage activity is permitted near the base of bench face, being loaded or awaiting firing, provided no other haulage access exists.							
4) Is loading and blasting conducted in a manner designed to facilitate a continuous process with the blast fired as soon as possible following the completion of loading?							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
5) If blasting a loaded round may be delayed for more than 72 hours, is the operator notifying the appropriate MSHA District Office?							
6) In electric blasting prior to connecting to the power source, and in nonelectric blasting prior to attaching an initiating device, are all persons leaving the blast area except persons in a blasting shelter or other location that protects them from concussion, flying material, and gases?							
7) Before firing a blast --							
a) Is ample warning given to allow all persons to be evacuated?							
b) Are clear exit routes provided for persons firing the round?							
c) Are all access routes to the blast area guarded or barricaded to prevent the passage of persons or vehicles?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	8) Is a post-blast examination addressing potential blast-related hazards being conducted by a person with the ability and experience to perform the examination before work is resumed in the blast area?							
Drill Stem Loading	1) Is explosive material loaded into blast holes with drill stem equipment or other devices that could be extracted while containing explosive material? NOTE: The use of loading hose, collar sheaves or collar pipes is permitted.					56.6307		
Initiation Systems	1) Are initiation systems used in accordance with the manufacturer's instructions?					56.6308		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Fuel Oil Requirements for ANFO	1) When preparing ammonium nitrate-fuel oil, are liquid hydrocarbon fuel with flash points lower than that of No. 2 diesel oil (125 degrees F) used? NOTE: Diesel fuels with flash points no lower than 100 degree F may be used at ambient air temperatures below 45 degrees F.					56.6309		
Misfire Waiting Period	1) When a misfire is suspected, are persons entering the blast area --					56.6310		
	a) before 30 minutes have elapsed, if safety fuse and blasting caps are used?							
	b) before 15 minutes have elapsed, if any other type detonators are used?							
Handling of Misfires	1) Are faces and muck piles examined for misfires after each blasting operation?					56.6311		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	2) Is only work necessary to remove a misfire and protect the safety of miners engaged in the removal permitted in the affected area until the misfire is disposed of in a safe manner?							
	3) When a misfire cannot be disposed of safely, is each approach to the area affected by the misfire posted with a warning sign at a conspicuous location to prohibit entry and the condition reported immediately to mine management?							
	4) Are misfires occurring during the shift reported to mine management not later than the end of the shift?							
Secondary Blasting	1) Are secondary blasts fired at the same time in the same work area initiated from one source?					56.6312		
Electric Blasting Compatibility of Electric Detonators	1) Are all electric detonators to be fired in a round from the same manufacturer and have similar electrical firing characteristics?					56.6400		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Shunting	1) Except during testing, are the electric detonators to be fired in a round kept shunted until connected to the blasting line or wired into a blasting round?					56.6401		
	2) Except during testing, are the wired rounds kept shunted until connected to the blasting line?							
	3) Except during testing, are the blasting lines kept shunted until immediately before blasting?							
Deenergized Circuits Near Detonators	1) Are electrical distribution circuits within 50 feet of electric detonators at the blast site deenergized?					56.6402		
	2) Are such circuits not deenergized between 25 to 50 feet of electric detonators if stray current tests, conducted as frequently as necessary, indicate a maximum stray current of less than 0.05 amperes through a 1-ohm resistor as measured at the blast site?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Branch Circuits	1) If electric blasting includes the use of branch circuits is each branch equipped with a safety switch or equivalent method to isolate the circuits to be used?					56.6403		
	2) Is at least one safety switch or equivalent method of protection located outside the blast area?							
	3) Is the safety switch or equivalent in the open position until persons are withdrawn?							
Separation of Blasting Circuits From Power Source	1) Are switches used to connect the power source to a blasting circuit locked in the open position except when closed to fire the blast?					56.6404		
	2) Are lead wires not connected to the blasting switch until the shot is ready to be fired?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Firing Devices	1) Are power sources capable of delivering suf-ficient current to energize all electric detonators to be fired with the type of circuits used?					56.6405		
	2) Are storage and dry cell batteries permitted as power sources?							
	3) Are blasting machines tested, repaired, and main-tained in accordance with manufacturer's instructions?							
	4) Is the blaster the only person to have the key or other control to an electrical firing device?							
Duration of Current Flow	1) If any part of a blast is connected in parallel and is to be initiated from power lines or lighting circuits, is the time of current flow limited to a maximum of 25 milliseconds?					56.6406		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	2) Is the above accomplished by incorporating an arcing control device in the blasting circuit or interrupting the circuit with an explosive device attached to one or both lead lines and initiated by a 25-millisecond delay electric detonator?							
Circuit Testing	1) Is a blasting galvanometer or other instrument designed for testing blasting circuits used to test –					56.6407		
	a) continuity of each electric detonator in the blast hole prior to stemming and connection to the blasting line?							
	b) resistance of individual series or the resistance of multiple balanced series to be connected in parallel prior to their connection to the blasting line?							
	c) continuity of blasting lines prior to the connection of electric detonator series?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	d) total blasting circuit resistance prior to connection to the power source?							
NONELECTRIC BLASTING								
Damaged Initiating Material	1) Is a visual check of the completed circuit made to ensure that the components are properly aligned and connected?					56.6500		
	2) Is the safety fuse, igniter cord, detonating cord, shock or gas tubing, and similar material which is kinked, bent sharply, or damaged being used?							
Nonelectric Initiation System	1) When the nonelectric initiation system uses shock tubes, are --					56.6501		
	a) connections with other initiation devices secured in a manner which provides for uninterrupted propagation?							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
b) factory-made units used as assembled and are not to be cut except that a single splice is permitted on the lead-in trunk line during dry conditions?							
c) connections between blast holes made until immediately prior to clearing the blast site when surface delay detonators are used?							
2) When the nonelectric Initiation system uses detonating cord, are --							
a) the lines of detonating cord extending out of a blast hole cut from the supply spool immediately after the attached explosive is correctly positioned in the hole?							
b) in multiple row blasts, is the truck line layout designed so that the detonation can reach each blast hole from at least two directions?							
c) connections tight and kept at right angles to the trunk line?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	d) detonators attached securely to the side of the detonating cord and pointed in the direction in which detonation is to proceed?							
	e) connections between blast holes being made immediately prior to clearing the blast site when surface delay detonators are used?							
	f) lead-in lines manually unreeled if connected to the trunk lines at the blast site?							
	3) When nonelectric initiation system uses gas tube, is continuity of the circuit tested prior to blasting?							
Safety Fuse	1) Is the burning rate of each spool of safety fuse to be used measured, posted in locations which will be conspicuous to safety fuse users, and brought to the attention of all persons involved with the blasting operation?					56.6502		

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
2) When firing with safety fuse ignited individually using handheld lighters, is the safety fuse of lengths which provide at least the minimum burning time for a particular size round, as specified in table E-1--Safety Fuse--Minimum Burning Time							
3) Where fly rock might damage exposed safety fuse, is the blast timed so that all safety fuses are burning within the blast holes before any blast hole detonates?							
4) Are fuses cut and capped in dry locations?							
5) Are blasting caps crimped to fuse only with implements designed for that purpose?							
6) Is safety fuse ignited only after the primer and the explosive material are securely in place?							
7) Is safety fuse being ignited only with devices designed for that purpose?							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
8) Are carbide lights, liquefied petroleum gas torches, and cigarette lighters being used to light safety fuse?							
9) Are at least two persons present when lighting safety fuse?							
10) Is any one person lighting more than 15 individual fuses?							
11) If more than 15 holes per person are to be fired, are electric initiation systems, igniter cord, and connectors, or other nonelectric initiation systems used?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
EXTRANEOUS ELECTRICITY								
Loading Practices	1) If extraneous electricity is suspected in an area where electric detonators are used, is loading suspended until tests determine that the stray current does not exceed 0.05 amperes through a 1-ohm resister when measured at the location of the electric detonators?					56.6600		
	2) If greater levels of extraneous electricity are found, is the source determined and no loading taking place until the condition is corrected?							
Grounding	1) Are electric blasting circuits, including power line sources when used, grounded?					56.6601		
Static Electricity Dissipation During Loading	1) When explosive material is loaded pneumatically into a blast hole in a manner that generates a static electricity hazard--					56.6602		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	a) is an evaluation of the potential static electricity hazard made and any hazard eliminated before loading begins?							
	b) is the loading hose of a semiconductive type, have a total of not more than 2 megohms of resistance over its entire length and not less than 1,000 ohms of resistance per foot?							
	c) are wire-countered hoses being used?							
	d) are conductive parts of the loading equipment bonded and grounded and grounds being made to other potential sources of extraneous electricity?							
	e) are plastic tubes used as hole lines if the hole contains an electric detonators?							
Air Gap	1) Is at least a 15-foot air gap provided between the blasting circuit and the electric power source?					56.6603		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Precautions During Storms	1) During the approach and progress of an electrical storm are blasting operations suspended and persons withdrawn from the blast area or to a safe locations?					56.6604		
Isolation of Blasting Circuits	1) Are lead wires and blasting lines isolated and insulated from power conductors, pipelines and railroad tracks, and protected from sources of stray or static electricity?					56.6605		
	Are blasting circuits protected from any contact between firing lines and overhead power lines which could result from the force of the blast?							
EQUIPMENT/TOOLS								
Non-sparking Tools	1) Are only non-sparking tools used to open containers of explosive material or to punch holes in explosive cartridges?					56.6700		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Tamping and Loading Pole Requirements	1) Are tamping and loading poles of wood or other nonconductive, non-sparking material?					56.6701		
	2) Are couplings for poles non-sparking?							
MAINTENANCE								
Storage Facilities	1) When repair work which could produce a spark of flame is to be performed on a storage facility--					56.6800		
	a) is the explosive material moved to another facility or moved at least 50 feet from the repair activity and monitored?							
	b) is the facility cleaned to prevent accidental detonation?							
Vehicle Repair	1) Are vehicles containing explosive material and oxidizers being taken into a repair garage or shop?					56.6801		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Bulk Delivery Vehicles	1) Is welding or cutting performed on a bulk delivery vehicle before the vehicle has been washed down and all explosive material has been removed?					56.6802		
	2) Is welding or cutting on a hollow shaft being done before the shaft is thoroughly cleaned inside and out and vented with a minimum ½- inch diameter opening to allow for sufficient ventilation?							
Blasting Lines	1) Are permanent blasting lines properly supported?					56.6803		
	2) Are all blasting lines insulated and kept in good repair?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
GENERAL REQUIREMENTS								
Damaged or Deteriorated Explosive Material	1) Is damaged or deteriorated explosive material disposed of in a safe manner in accordance with the instructions of the manufacturer?					56.6900		
Black Powder	1) Is black powder used for blasting when a desired result cannot be obtained with another type of explosive, such as in quarrying certain types of dimension stone?					56.6901		
	2) Are the containers of black powder--							
	a) non-sparking?							
	b) kept in a totally enclosed cargo space while being transported by a vehicle?							
	c) securely closed at all times when--							
	-- within 50 feet of any magazine or open flame?							

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
-- within any building in which a fuel-fired or exposed-element electric heater is operating?							
-- in an area where electric or incandescent-particle sparks could result in powder ignition?							
d) opened only when the powder is being transferred to a blast hole or another con-tainer and only in locations not listed above?							
3) Is black powder trans-ferred from containers only by pouring?							
4) Are spills cleaned up promptly with non-sparking equipment?							
5) Is contaminated powder put into a container of water and disposed of promptly after the granules have disintegrated, or the spill area flushed promptly with water until the granules have disintegrated completely?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	6) Are misfires disposed of by washing the stemming and powder charge from the blasthole, and removing and disposing of the initiator in accordance with the requirement for damaged explosives?							
	7) Are holes reloaded within 12 hours when the blast holes have failed to break as planned?							
Excessive Temperatures	1) Where heat could cause premature detonation, is explosive material loaded into hot areas, such as kilns or sprung holes?					56.6902		
	2) When blasting sulfide ores where hot holes occur that may react with explosive material in blastholes, are the operators-							
	a) measuring an appropriate number of blasthole temperatures in order to assess the specific mine conditions prior to the introduction of explosive materials?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	b) limiting the time between completion of loading and the initiation of the blast to no more than 12 hours?							
	c) taking other special precautions to address the specific conditions at the mine to prevent premature detonation?							
Burning Explosive Material	1) If explosive material is suspected of burning at the blast site, are persons evacuated from the endangered area?					56.6903		
	2) If explosive material is suspected of burning at the blast site, are persons returning before one hour after the burning or suspected burning has stopped?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Smoking and Open Flames	1) Is smoking and use of open flames being permitted within 50 feet of explosive material except when separated by permanent non-combustible barriers? NOTE: This does not apply to devices designed to ignite safety fuse or to heating devices which do not create a fire or explosion hazard.					56.6904		
Protection of Explosive Material	1) Is explosive material protected from temperatures in excess of 150 degrees Fahrenheit?					56.6905		
	2) Is explosive material protected from impact, except for tamping and dropping during loading?							
DRILLING AND ROTARY JET PIERCING								
Equipment Defects	1) Are equipment defects affecting safety corrected before the equipment is used?					56.7002		
Drill Area Inspection	1) Is the drilling area inspected for hazards before starting the drilling operations?					56.7003		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Drill Mast	1) Are persons on a mast while the drill bit is in operation provided with a safe platform from which to work and required to use safety belts to avoid falls?					56.7004		
Auger and Drill Stems	1) Are drill crews and others staying clear of augers or drill stems that are in motion?					56.7005		
	2) Are persons passing under or stepping over a moving stem or auger?							
Moving the Drill	1) When a drill is being moved from one drilling area to another, is the drill steel, tools, and other equipment secured and the mast placed in a safe position?					56.7008		
Drill Helpers	1) If a drill helper assists the drill operator during movement of a drill to a new location, is the helper in sight of, or in communication with, the operator at all times?					56.7009		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Power Failures	1) In the event of power failure, are the drill controls placed in the neutral position until power is restored?					56.7010		
Straightening Crossed Cables	1) Is the drill stem resting on the bottom of the hole or on the platform with the stem secured to the mast before attempts are made to straighten a crossed cable on a reel?					56.7011		
Tending Drills in Operation	1) While in operation, are drills attended at all times?					56.7012		
Covering or Guarding Drill Holes	1) Are drill holes, large enough to constitute a hazard, covered or guarded?					56.7013		
Hand Clearance	1) Are persons holding the drill steel while collaring holes, or resting their hands on the chuck or centralizer while drilling?					56.7018		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
DRILLING								
Tools and Drill Steel Racks	1) Are receptacles or racks provided for drill steel and tools stored or carried on drills?					56.7050		
Loose Objects on the Mast or Drill Platform	1) Are tools and other objects left loose on the mast or drill platform?					56.7051		
Drilling Positions	1) Are persons drilling from-					56.7052		
	a) positions which hinder their access to the control levers?							
	b) insecure footing or insecure staging?							
	c) atop equipment not suitable for drilling?							
Moving Hand-Held Drills	1) Before hand-held drills are moved from one working area to another, is the air turned off and bled from the hose?					56.7053		
Starting or Moving Drill Equipment	1) Before drill operators start or move drilling equipment are all miners in the clear?					56.7054		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Intersecting Holes	1) Are holes being drilled where there is a danger of intersecting a misfired hole or a hole containing explosives, blasting agents, or detonators?					56.7055		
Collaring in Bootlegs	1) Are holes being collared in bootlegs?					56.7056		
ROTARY JET PIERCING								
Jet Drills	1) Are jet piercing drills provided with–					56.7801		
	a) a system to pressurize the equipment operator's cab when a cab is provided?							
	b) a protective cover over the oxygen flow indicator?							
Oxygen Hose Lines	1) Are safety chains or other suitable locking devices provided across connections to and between high pressure oxygen hose lines of 1-inch inside diameter or larger?					56.7802		
Lighting the Burner	1) Is a suitable means of protection provided for the employee when lighting the burner?					56.7803		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Refueling	1) When rotary jet piercing equipment requires refueling at locations other than fueling stations, is a system for fueling without spillage provided?					56.7804		
Smoking and Open Flames	1) Are persons smoking and open flames being used in the vicinity of oxygen storage and supply lines?					56.7805		
	2) Are signs warning against smoking and open flames posted in these areas?							
Oxygen Intake Coupling	1) Is the oxygen intake coupling on jet piercing drills constructed so that only the oxygen hose can be coupled to it?					56.7806		
Flushing the Combustion Chamber	1) Is the combustion chamber of a jet drill stem, which has been sitting unopened in a drill hole, flushed with a suitable solvent after the stem is pulled up?					56.7807		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
LOADING, HAULING, AND DUMPING - TRAFFIC SAFETY								
Traffic Safety *(Accounted for 1% of S&G/Crushed Stone violations in 1997)*	Are rules established and followed for governing speed, right-of-way, direction of movement, and the use of headlights?					56.9100		
Operating Speeds and Control of Equipment	Are operators of self-propelled mobile equipment maintaining control of the equipment while it is in motion?					56.9101		
	Are operating speeds consistent with conditions of roadways, tracks, grades, clearance, visibility, and traf-fic, and the type of equip-ment used?							
Movement of independently operating rail equipment	Is the movement of two or more pieces of rail equipment, operating independently on the same track, being controlled for safe operation?					56.9102		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Clearance on adjacent tracks	When railcars are left on side tracks, is clearance provided for traffic on adjacent tracks?					56.9103		
TRANSPORTATION OF PERSONS AND MATERIALS								
Transporting Persons	Are persons not allowed to be transported in or on dippers, forks, clamshells or buckets, except shaft buckets during shaft-sinking operations or during inspection, maintenance and repair of shafts?					56.9200 (a)		
	Are persons kept from being transported in the beds of mobile equipment or railcars, unless (1) provisions are made for secure travel, and (2) means are taken to prevent accidental unloading if the equipment is provided with unloading devices?					56.9200 (b)		
	Are persons not being transported on top of loads in mobile equipment?					56.9200 (c)		

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Are persons not being transported outside cabs, equipment operators' stations and beds of mobile equipment? (except when necessary for maintenance, testing, or training purposes, and provisions are made for secure travel.) NOTE! This does not apply to rail equipment.					56.9200 (d)		
Are persons not being transported between cars of trains, on the leading end of a single railcar, or in other locations on trains that expose persons to hazards from train movement? (This does not apply to car droppers using safety belts or lines)					56.9200 (e)		
Do brakemen and trainmen not ride between cars of moving trains? (They may ride on the leading end of trains or other locations when necessary to perform their duties.)					56.9200 (e) (2)		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are persons being transported to and from work areas in mobile equipment which is not overcrowded?					56.9200 (f)		
	Are persons not being transported in mobile equipment unless the items are secured or are small and can be carried safely by hand without creating a hazard to persons?					56.9200 (h)		
	Are persons not being transported on conveyors? (This does not apply to conveyors designed to provide for safe transportation)							
Loading, hauling, and unloading of equipment or supplies	Are equipment and supplies being loaded, transported, and unloaded in a manner which does not create a hazard to persons from falling or shifting equipment or supplies?					56.9201		
Loading and hauling large rocks	Are large rocks broken before loading if they could endanger persons or affect the stability of mobile equipment?					56.9202		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is mobile equipment used for hauling mined material loaded to minimize spillage where a hazard to persons could be created?							
SAFETY DEVICES, PROVISIONS, AND PROCEDURES FOR ROADWAYS, RAILROADS, AND LOADING AND DUMPING SITES. NOTE! THIS SECTION DOES NOT APPLY TO RAIL BEDS, LOADING, HAULING AND DUMPING - SAFETY DEVICES, ETC.								
Berms or Guardrails *(Accounted for 4% of S&G/Crushed Stone violations in 1997)*	Are berms or guardrails provided and maintained on the banks of roadways where needed?					56.9300		
	Are berms or guardrails at least mid-axle height of the largest equipment usually traveling the roadway?							
	Do berms have openings to the extent necessary for roadway drainage?							
	For infrequently traveled elevated roadways used only by service or maintenance vehicles, and having no berms or guardrails, do they have the following–							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Locked gates at entrance points?							
	Signs posted that the road is not bermed?							
	Properly spaced and visible delineators?							
	Maximum speed limit posted, taking into account the size and slope of the road and road surface conditions?							
	Are road surfaces being maintained when sleet or snow reduces traction?							
Dump site restraints *(Accounted for 4% of S&G/Crushed Stone violations in 1997)*	Are berms, bumper blocks, safety hooks, or similar devices provided at dumping locations where there is a hazard of overtravel or overturning?					56.9301		
Protection against moving or runaway railroad equipment	Are stop blocks, derail devices, or other devices that protect against moving or runaway rail equipment, installed wherever necessary?					56.9302		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Ramps and dumping facilities	Are ramps and dumping facilities designed and constructed of materials capable of supporting the loads to which they will be subjected?					56.9303		
	Do ramps and dumps have adequate width, clearance, and headroom?							
Unstable Ground	Are visual inspections made of dumping locations prior to work?					56.9304		
Truck Spotters	Are truck spotters in the clear while trucks are backing up or dumping?					56.9305		
Warning Devices for Restricted Clearances	Are warning devices installed in advance of restricted clearance areas?					56.9306		
	Are restricted clearance areas conspicuously marked?							
Design, Installation, and Maintenance of Railroads	Are roadbeds and all elements of the railroad tracks designed, installed, and maintained to provide safe operation consistent with the speed and type of haulage used?					56.9307		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Switch Throws	Are switch throws installed to provide clearance to protect switchmen from contact with moving trains?					56.9308		
Chute Design	Are chute-loading installations designed to provide a safe location for persons pulling chutes?					56.9309		
Chute Hazards	Are persons given warning prior to chute pulling?					56.9310		
	Are persons attempting to free chute hangups experienced and familiar with the task, know the hazards, and use the proper tools?							
	When broken rock or materials is dumped into an empty chute, is the chute equipped with a guard or are all persons isolated from flying rock or material?							
Anchoring Stationary Sizing Devices	Are grizzlies and other stationary sizing devices securely anchored?					56.9311		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Working Around Drawholes	Are persons provided with platforms or using safety lines when working over drawholes where there is a danger of broken rock or material being withdrawn or bridged?					56.9312		
Roadway Maintenance	Are water, debris, or spilled materials removed from roadways to prevent a hazard to the operation of mobile equipment?					56.9313		
Trimming Stockpile and Muckpile Faces	Are stockpile and muckpile faces trimmed to prevent hazards to persons?					56.9314		
Dust Control	Is dust being controlled where it creates impaired visibility at material transfer points?					56.9315		
	Is dust being controlled where it creates impaired visibility at crushers?							
	Is dust being controlled where it creates impaired visibility on haulage roads?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Notifying the Equipment Operator	Are persons notifying the equipment operator before getting on or off that equipment?					56.9316		
Suspended Loads	Are persons keeping clear of working or passing under the buckets or booms of loaders in operation?					56.9317		
Getting On or Off Moving Equipment	Do persons refrain from getting on or off moving equipment? (This does not apply to trainmen, brakemen and car droppers who are required to get on or off slowly moving trains)					56.9318		
Going Over, Under, or Between Railcars	Are persons going over, under, or between railcars only when the train is stopped and the train operator, when present, is notified and acknowledges it?					56.9319		
Clearance for Surface Equipment	Is a continuous clearance of at least 30 inches provided from the farthest projection of moving railroad equipment on at least one side of the tracks at all locations where possible?					56.9330		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is the area well marked where 30 inches of clearance cannot be provided along tracks?							
TRAVELWAYS								
Safe Access *(Accounted for 7% of S&G/Crushed Stone violations in 1997)*	Is safe means of access provided and maintained to all working places?					56.11001		
Handrails and Toeboards *(Accounted for 7% of S&G/Crushed Stone violations in 1997)*	Are handrails provided on crossovers, elevated walk-ways, elevated ramps, and stairways?					56.11002		
	Are toeboards provided where necessary?							
Construction and Maintenance of Ladders	Are ladders constructed and maintained in good condition?					56.11003		
Portable Rigid Ladders	Are portable rigid ladders provided with suitable bases and placed securely when used?					56.11004		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Fixed Ladder Anchorage and Toe Clearance	Are fixed ladders anchored securely and installed to provide at least 3 inches of toe clearance?					56.11005		
Fixed Ladder Landings	Do fixed ladders project at least 3 feet above landings, or substantial handholds provided above the landings?					56.10006		
Wooden Components of Ladders	Are wooden components of ladders unpainted or painted only with a transparent finish?					56.11007		
Restricted Clearance	Where restricted clearance creates a hazard to persons, are these areas clearly marked?					56.11008		
Walkways Along Conveyors	Are walkways with outboard railings provided wherever persons are required to walk alongside elevated conveyor belts?					56.11009		
	Are inclined railed walkways made of nonskid materials or provided with cleats?							
Stair Step Clearance	Is the vertical clearance above stair steps a minimum of seven feet?					56.11010		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Where the vertical clearance above stair steps is less than seven feet, are warning signs or similar devices provided?							
Use of Ladders	Do persons using ladders face the ladders and have both hands free for climbing and descending?					56.11011		
Protection for Openings Around Travelways *(Accounted for 7% of S&G/Crushed Stone violations in 1997)*	Are openings above, below, or near travelways through which persons or materials may fall, protected by rail-ings, barriers, or covers?					56.11012		
	Where openings cannot be provided with protective devices, are adequate warning signals installed?							
Conveyor Crossovers	Are crossovers provided where it is necessary to cross conveyors?					56.11013		
Crossing Moving Conveyor?	Are moving conveyors crossed only at designated crossover points?					56.11014		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Snow and Ice on Walkways and Travelways	Are regularly used walkways and travelways sanded, salted, or cleared of snow and ice as soon as practicable?					56.11016		
Inclined Fixed Ladders	Are all fixed ladders installed so that they do not incline backwards?					56.11017		
Railed Landings, Backguards, and Other Protection for Fixed Ladders	Are fixed ladders offset and have substantial railed landings at least every 30 feet unless backguards or equivalent protection, such as safety belts and safety lines, are provided? This does not apply to mobile equipment.					56.11025		
Protection For Inclined Fixed Ladders	Do fixed ladders 70 to 90 degrees from the horizontal and 30 feet or more in length have back guards, cages, or equivalent protection, starting at a point not more than seven feet from the bottom of the ladders?					56.11026		
Scaffolds and Working Platforms	Are scaffolds and working platforms of substantial construction and provided with handrails and maintained in good condition?					56.11027		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are floor boards laid properly and the scaffolds and working platforms not overloaded?							
	Are working platforms provided with toe boards when necessary?							
ELECTRICITY								
Overload Protection	Are all circuits protected against excessive overloads?					56.12001		
	Are the fuses or circuit breakers used to protect circuits of the correct type and capacity?							
Switches	Are the circuits and equipment provided with switches or other controls to allow starting and stopping?					56.12002		
	Are the switches and controls of approved design?							
	Are the switches installed properly?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Overload and short circuit protection	Is overload protection or short circuit protection provided for the trailing cable to mobile equipment?					56.12003		
Conductors *(Accounted for 6% of S&G/Crushed Stone violations in 1997)*	Are the electrical conductors serving the equipment of sufficient size and current-carrying capacity?					56.12004		
	Have the conductors having cuts, abrasions, or showing signs of being damaged by materials been repaired?							
Protection of Conductors	Have the power conductors that show signs of being damaged by materials been repaired?					56.12005		
	Do the conductors not show signs where materials may have been dragged across the conductors?							
Distribution boxes	Are distribution boxes used?					56.12006		
	Is a disconnecting device provided for each branch circuit exiting the distribution box?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Does the branch circuit provide visual evidence that the power is disconnected when the disconnect is open?							
	Is the distribution box labeled to show which circuit each device controls?							
Circuit broken under load	Are the circuits to trailing cables or power-cable junction boxes not made or not broken under load?					56.12007		
Power wires and cable entrance *(Accounted for 6% of S&G/Crushed Stone violations in 1997)*	Are the power wires and cables insulated where they pass into or out of electrical compartments?					56.12008		
	Are the cables provided with a proper fitting where they enter or exit an enclosure?							
	When wires enter into an enclosure, are they substantially bushed with insulated bushings?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Separation of Telephone and Power	Are the telephone lines protected from contacting energized power conductors?					56.12010		
	Are the low potential (0-650 volts) signal wire protected where there is a possibility of contacting energized power conductors?							
Separation of High and Low Potentials	Are the high-potential (>650 volts) conductors prevented from contacting low-potential (<650 volts) conductors?					56.12011		
Voltage on Signal Wires	Is the voltage on the signal wires less than 48 volts?					56.12012		
Permanent Splices *(Accounted for 6% of S&G/Crushed Stone violations in 1997)*	Is the permanent splice in the cables mechanically strong with electrical conductivity as near as possible to the original cable (is proper connectors used)?					56.12013		
	Is the permanent splice insulated to a degree at least equal to that of the original insulation?							
	Is the splice sealed to exclude moisture?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is the outer jacket replaced with damage protection as near as possible to that of the original?							
	Is the outer jacket replacement bonded good to the cable?							
Handling Energized Cables	Are gloves, slings, hooks, tongs, ropes, or other insulated handling tools used, when cables energized more than 150 volts to ground, are handled?					56.12014		
Mechanical Work on Electrical Equipment	When mechanical work is performed on electrical equipment, is the power removed prior to work being performed?					56.12016		
	Are the power switches to the machine being worked on locked in the open position before performing work?							
	Is a warning sign attached to the open switch before working on the equipment?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are the locks removed by the person who installed it or by an authorized person?							
Electrical Work on Circuits and Equipment	Except when hot line tools are used, is the power removed from circuits prior to performing work on the circuit?					56.12017		
	Are the switches used to remove the power from these circuits locked out prior to performing work?							
	Are the signs removed by the person who installed it or by an authorized person?							
Labeling of Power Switches	Are all the principal power switches labeled to show which units they control?					56.12018		
Access to Electrical Equipment	Is suitable access provided to all stationary electrical equipment or switchgear?					56.12019		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Insulating Mats	Are switchboards and other control equipment which pose a shock provided with a dry wooden platform, insulating mat, grounded metal plates, or other electrical nonconductive material?					56.12020		
	Are these materials used at the switches or other control equipment kept in place?							
Danger Signs	Are suitable danger signs posted at all major electrical installations?					56.12021		
Authorized Persons	Are authorized persons the only people who enter major electrical installations?					56.12022		
Guarding of Electrical Connections and Resistor Grids	Are electrical connections and resistor grids that are not insulated guarded?					56.12023		
Grounding *(Accounted for 4% of S&G/Crushed Stone violations in 1997)*	Is all metal enclosing or encasing electrical circuits grounded or double insulated?					56.12025		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Grounding Fences	Are all metal fencing and metal buildings enclosing transformers grounded?					56.12026		
Grounding of Mobile Equipment	Is the frame of the electrical powered mobile equipment grounded or provided with equivalent protection?					56.12027		
Continuity and Resistance Testing *(Accounted for 3% of S&G/Crushed Stone violations in 1997)*	Are continuity and resistance tests performed on grounding systems immediately after they are installed, repaired, and modified, and annually thereafter?					56.12028	R	
	Is a record of the most recent continuity and resistance test available for inspection?							
Dangerous Conditions *(Accounted for 4% of S&G/Crushed Stone violations in 1997)*	When potential dangerous conditions are found, are the conditions corrected before the equipment or wiring is energized?					56.12030		
Inspection and Cover Plates *(Accounted for 3% of S&G/Crushed Stone violations in 1997)*	Are the inspection and cover plates on electrical equipment and junction boxes kept in place at all times?					56.12032		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Voltage of Hand-Held Tools	Are all hand-held tools operating at a voltage below 650 volts?					56.12033		
Guarding of Portable Lights	Are portable lights and other lights by their location that present a shock or burn hazard guarded?					56.12034		
Weatherproof Sockets	Are all lamp sockets which are exposed to weather or wet conditions weather-proof?					56.12035		
Fuse Pullers	Are fuse pullers or other pre-cautionary measures taken to prevent persons from install-ing or removing fuses in energized circuits?					56.12036		
Hot Line Tools	Are fuse tongs or hot line tools used when installing or replacing fuses in circuits energized at a voltage greater than 650 volts?					56.12037		
Strain Relief	Is strain relief provided for trailing cables where they enter the machines?					56.12038		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Trailing Cable Protection From Damage	Are trailing cables to shovels and other similar equipment protected from physical damage?					56.12039		
Operating Controls	Are operating controls installed so that persons operating the controls are not exposed to energized conductors?					56.12040		
Switches-Safe Design	Are the switches and starting boxes of safe design and capacity?					56.12041		
Track Bonding	Where track is used as a return circuit, are the joints bonded or welded at every joint?					56.12042		
	Are cross bonds installed at 200 foot intervals?							
	Are broken bonds replaced within three working shifts?							
High-Potential Power line (NEC)	Are overhead high-potential power lines installed as specified by the National Electric Code?					56.12045		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Guy Wires	Are the guy wires of poles supporting high voltage transmission lines installed, grounded, or insulated in accordance to the National Electric Safety Code?					56.12047		
Installation of Telegraph, Telephone, and Signal Wires	Are telegraph, telephone, or signal wires not installed on the same cross arm as power conductors?					56.12048		
	Are telegraph, telephone, or signal wires installed in accordance to the National Electric Code?							
Height of Trolley Wire	Are trolley wires installed 7 feet above the rails where the height permits?					56.12050		
DC Lighting Ground Return	Are the ground wires for lighting circuits supplied from trolley wires grounded to the return circuit?					56.12053		
Short Circuit Protection for Trolley, Telephone, and Power Lines	Are power lines, including trolley wires and telephone circuits, protected against short circuits and lightning?					56.12065		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Guarding of Trolley	Is the trolley guarded where metallic tools or equipment can contact them?					56.12066		
	When the trolley cannot be guarded to prevent contact, are the trolley circuits de-energized when tools or equipment are near?							
Transformer Enclosures	Are transformers either: totally enclosed, placed 8 feet above the ground, or installed in a transformer house, or surrounded by a substantial fence?					56.12067		
	Is the substantial fence at least 6 feet high and 3 feet from any energized part, casing, or wiring?							
Authorized Entry	Are transformer enclosures locked against unauthorized entry?					56.12068		
Lightning Arrester	Are ungrounded power conductors or telephone wire equipped with lightning arresters within 100 feet of the point where they enter underground?					56.12069		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are the lightning arresters installed on the power conductors and telephone wire of the approved type? Are the lightning arresters connected to a low-resistance grounding medium on the surface?							
	Is the lightning arrester grounding medium separated from all neutral grounds by at least 25 feet?							
COMPRESSED AIR AND BOILERS								
General Requirements	Are all boilers and pressure vessels constructed, installed, and maintained in accordance with the standards and specifications of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code?					56.13001		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Reciprocating-Type Air Compressors	Are reciprocating-type air compressors rated over 10 horsepower equipped with automatic temperature actuated shutoff mechanisms which are set or adjusted to the compressor when the normal operating temperature is exceeded by more than 25%? NOTE! This standard does not apply if equipped with fusible plugs installed in the compressor discharge lines before 11/15/79, and designed to melt at temperatures at least 50 degrees below the flash point of the compressors' lubricating oil.					56.13010		
Air Receiver Tanks	Are air receiver tanks equipped with one or more automatic pressure relief valves?					56.13011		
	Does the total relieving capacity of the relief valves prevent pressure from exceeding the maximum allowable working pressure in a receiver tank by not more than 10%?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are air receiver tanks equipped with indicating pressure gauges which accurately measure the pressure within the tanks?							
Compressor Air Intakes	Is clean uncontaminated air used in compressors?					56.13012		
Inspection of Compressed Air Receivers and Other Unfired Pressure Vessels	Are receivers and vessels inspected by persons holding a valid National Board Commission, and in accord-ance with the National Board Inspection Code, a Manual for Boiler and Pressure Vessel Inspectors, 1979?					56.13015	R/T	
	Are records of inspections kept in accordance with the National Board Inspection Code?							
Compressor Discharge Pipes	Are compressor discharge pipes where carbon build-up may occur cleaned periodically as recommended by the manufacturer, but no less frequently than once every two years?					56.13017		
Pressure System Repairs	Are repairs to pressure systems done only after the pressure has been bled off?					56.13019		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Use of Compressed Air	Are rules established and followed to prevent compressed air from being directed toward a person?					56.13020		
High-Pressure Hose Connections	Are safety chains or other suitable locking devices used at connections to machines of high pressure hose lines of 3/4-inch inside diameter or larger? Or between high pressure hose lines of 3/4- inch inside diameter or larger? (Except where automatic shutoff valves are used)					56.13021		
Boilers	Are fired pressure vessels (boilers) equipped with the following: water level gauges, pressure gauges, automatic pressure-relief valves, blowdown piping or other safety devices approved by the American Society of Mechanical Engineers?					56.13030	R/T	

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are the gauges, piping, and safety devices designed, installed, operated, maintained, repaired, altered, inspected, and tested by inspectors holding a valid National Board Commission and in conformance with the ASME Boiler and Pressure Vessel Code, 1977?							
	Are records of inspections and repairs kept in accordance with the ASME Boiler and Pressure Vessel Code and the National Board Inspection Code?							
MACHINERY AND EQUIPMENT								
Safety Defects, Examination, Correction and Records *(Accounted for 7% of S&G/Crushed Stone violations in 1997)*	Is self-propelled mobile equipment to be used during a shift inspected by the equipment operator before being placed in operation on that shift?					56.14100	R	
	Are defects on any equipment, machinery, and tools that affect safety corrected in a timely manner?							

* C=Certification / R=Record / T=Training

	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is self-propelled mobile equipment and other machin-ery taken out of service when defects make contin-ued operation hazardous? Is the equipment placed in a designated area or tagged to prohibit further use?							
	Are defects on self-propelled mobile equipment affecting safety, reported to and recorded? Are the records kept at the mine or nearest mine office from the date the defects are recorded?							
Brakes *(Accounted for 5% of S&G/Crushed Stone violations in 1997)*	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)					56.14101		
	Are parking brakes on equip-ment (if equipped) capable of holding the typical load on the maximum grade traveled?							

* C=Certification / R=Record / T=Training

	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are service brake tests conducted according to Section 56.14101?							
Brakes for Rail Equipment	Are braking systems on railroad cars and locomotives maintained in functional condition?					56.14102		
Operators Stations *(Accounted for 4% of S&G/ Crushed Stone violations in 1997)*	Are windows on operator's stations of self-propelled mobile equipment made of safety glass or material with equivalent safety characteristics, and provide visibility for safe operation?					56.14103		
	Are damaged windows that obscure visibility or create a hazard replaced or removed?							
	Are damaged windows replaced where the lack of windows creates a hazardous environmental condition?							
	Are operator's stations of self-propelled mobile equipment kept free of materials that could create a hazard to persons by impairing the safe operation of the equipment?							

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are operator's stations modified so that visibility is not obscured?							
Tire Repairs	Before a tire is removed from a vehicle for repair, is the valve core partially removed to allow for gradual deflation, and then removed?					56.14104		
	When tires are being deflated, do persons stand outside of the potential trajectory of the lock ring of a multi-piece wheel rim?							
	Are wheel cages or other restraining devices used when inflating tires, or a stand-off inflation device used?							
Procedures During Repairs or Maintenance	Is the power removed and the machinery or equipment blocked against motion when repairs or maintenance is being done? (Except when motion is permitted to the extent that adjustments or testing requires it, and persons are effectively protected from hazardous motion)					56.14105		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Falling Object Protection	Are fork-lift trucks, front-end loaders, and bulldozers provided with falling object protective structures? Are the structures capable of withstanding the falling object loads to which it would be subjected?					56.14106		
Moving Machine Parts *(Accounted for 19% of S&G/ Crushed Stone violations in 1997)*	Are guards provided on gears, sprockets, chains, drive, head, tail, and takeup pulleys, flywheels, couplings, shafts, fan blades, and similar moving parts that can cause injury? (Guards are not required where the exposed moving parts are at least seven feet away from walking or working surfaces)					56.14107		
Overhead Drive Belts	Are overhead drive belts guarded if the whipping action of a broken belt could create a hazard?					56.14108		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Unguarded Conveyors with Adjacent Travelways *(Accounted for 19% of S&G/ Crushed Stone violations in 1997)*	Are unguarded conveyors next to travel ways equipped with: Emergency stop devices, readily activated?					56.14109		
	Or: • Railing positioned to prevent persons from falling on or against the conveyor? • Railings able to withstand vibration, shock, and wear? • Railings constructed and maintained so that they do not create a hazard?							
Flying or Falling Materials	Are guards, shields, or other devices provided for protection against flying or falling materials generated from the operation of screens, crushers, or conveyors?					56.14110		
Slushers, Backlash Guards, and Securing	Are slushers equipped with rollers and drum covers and anchored securely where persons are exposed to their operation?					56.14111		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are slushers rated over 10 horsepower equipped with backlash guards? (Does not apply if the equipment operator is otherwise protected or does not apply to air tuggers of 10 horsepower or less that have only one cable and one drum)							
Construction and Maintenance of Guards	Are guards constructed to withstand vibration, shock, and wear?					56.14112		
	Are guards constructed in a way that does not create a hazard?							
	Are guards securely in place while machinery is being operated, except when testing or making adjustments?							
Inclined Conveyors: Backstops or Brakes	Are backstops or brakes installed on drive units of inclined conveyors?					56.14113		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Air Valves of Pneumatic Equipment	Is a manual master quick-close type air valve installed on all pneumatic-powered equipment where a hazard of uncontrolled movement could occur when the air supply is activated? Are valves kept closed except when the equipment is being operated?					56.14114		
Stationary Grinding Machines	Are stationary grinding machines, other than special bit grinders, equipped with peripheral hoods capable of withstanding the force of a bursting wheel and enclosing not less than 270 degrees of the periphery of the wheel?					56.14115		
	Are stationary grinding machines equipped with adjustable tool rests set so that the distance between the grinding surface of the wheel and the tool rest is not greater than 1/8 inch?							
	Are stationary grinding machines equipped with a safety washer on each side of the wheel?							

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Hand-Held Power Tools	Are power drills, disc sanders, grinders, and circular and chain saws operated with controls which require constant hand or finger pressure when used in the hand-held mode? Are circular saws and chain saws not equipped with devices which lock-on the operating controls?					56.14116		
Roll-Over Protective Structures (ROPS) and Selt Belts *(Accounted for 3% of S&G/Crushed Stone violations in 1997)*	Are crawler tractors and crawler loaders; graders; wheel loaders and wheel tractors; the tractor portion of semi-mounted scrapers, dumpers, water wagons, bottom-dump wagons, rear-dump wagons, and towed fifth wheel attachments; skid-steer loaders; and agricultural tractors equipped with ROPS?					56.14130 (a)		

* C=Certification / R=Record / T=Training

DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Do ROPS meet the requirements of the Society of Automotive Engineers (SAE) publications? Are they labeled? Are they installed on the equipment according to the ROPS manufacturer's recommendations?					56.14130 (b) (c), and (d)		
Are ROPS re-certified after subjected to roll-over which creates abnormal structural loading or after alterations or repairs? Is the recertification done by the manufacturer or a registered professional engineer?					56.14130 (e)	C	
Are seat belts worn by the equipment operators?					56.14130 (g)		
Do seat belts meet SAE requirements? Are they maintained in functional condition and replaced when necessary?					56.14130 (h), (i)		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Seat Belts for Haulage Trucks *(Accounted for 3% of S&G/Crushed Stone violations in 1997)*	Are seat belts provided for and worn in haulage trucks? Are they maintained in functional condition and replaced when necessary? Do they meet SAE requirements?					56.14131		
Horns and Backup Alarms	Are manually-operated horns or other audible warning devices provided on self-propelled mobile equipment? Are they maintained in functional condition? This standard does not apply to rail equipment.					56.14132		
	Does self-propelled mobile equipment have an automatic reverse-activated signal alarm, or a wheel-mounted bell alarm (which sounds at least once for each three feet of reverse movement), or a discriminating backup alarm that covers the area of obstructed view; or an observer to signal when it is safe to back up (when the operator has an obstructed view to the rear)?							

* C=Certification / R=Record / T=Training

	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are alarms audible above the surrounding noise level? An automatic reverse-activated strobe light may be used at night in lieu of an audible reverse alarm.							
SAFETY PRACTICES AND OPERATIONAL PROCEDURES								
Warnings Prior to Starting or Moving Equipment	Are equipment operators sounding a warning before starting crushers or moving self-propelled mobile equipment? Is the sound audible above the surrounding noise level or are other effective means of warning used?					56.14200		
Conveyor Start-up Warnings	Does the conveyor operator visually check to make certain that all persons are in the clear before starting a con-veyor where the entire length is visible from the starting switch?					56.14201		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are visible or audible warnings installed and operated to warn persons of a start-up where the entire length of the conveyor is not visible from the starting switch? Is the conveyor started or another warning given within 30 seconds of the warning?							
Manual Cleaning of Conveyor Pulleys	Are pulleys not cleaned man-ually while the conveyor is in motion?					56.14202		
Application of Belt Dressing	Is belt dressing applied only when belts are not in motion (unless a pressurized-type applicator is used that allows the dressing to be applied from outside the guards)?					56.14203		
Machinery Lubrication	Is machinery or equipment lubricated manually only when not in motion?					56.14204		
Machinery, Equipment, and Tools	Are machinery, equipment, and tools used only within the design capacity intended by the manufacturer?					56.14205		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Securing Movable Parts	Are movable parts such as booms, forks, buckets, beds, and similar parts positioned in the travel mode when being moved, and if required for safe travel, mechanically secured?					56.14206		
Parking Procedures for Unattended Equipment	Is unattended mobile equipment placed in the park position and the parking brake, if provided, set? Are the wheels or tracks of mobile equipment either chocked or turned into a bank when parked on a grade?					56.14207		
Warning Devices	Are visible warning devices used when parked mobile equipment creates a hazard to persons in other mobile equipment?					56.14208		
	Does mobile equipment, other than forklifts, carrying loads that project beyond the sides or more than four feet beyond the rear of the equip-ment, have a warning flag at the end of the projection? Or a person carrying a flag?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Under conditions of limited visibility, do loads have a warning light at the end of the projection? Or a person carrying a light?							
Safety Procedures for Towing	Are properly sized tow bars or other effective means used to tow mobile equipment? (Does not apply to rail equipment)					56.14209		
	Is safety chain or wire rope of proper size used in towing equipment where steering and braking are not under the control of the equipment operator? (Does not apply to rail equipment)							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Movement of Dippers, Buckets, Loading Booms, or Suspended Loads	Are dippers, buckets, loading booms, or suspended loads swung over the operators' stations of self-propelled mobile equipment only when the equipment operator is out of the operator's station and in a safe location? (This does not apply when the equipment is specifically designed to protect the equipment operator from falling objects)					56.14210		
Blocking Equipment in a Raised Position	Do persons work on top of, under, or from mobile equipment in a raised position only when the equipment has been blocked or mechanically secured to prevent it from rolling or falling accidentally?					56.14211		
	Do persons work on top of, under, or from a raised component of mobile equipment only when the component has been blocked or mechanically secured to prevent accidental lowering? Is the equipment also blocked or secured to prevent rolling?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Is a raised component secured to prevent accidental lowering when persons are working on or around mobile equipment and are exposed to the hazard of accidental lowering of the component? (A raised component of mobile equipment is considered to be blocked or mechanically secured if provided with a functional load-locking device or a device which prevents free and uncontrolled descent)							
	Is a raised component blocked or secured during repair or maintenance of elevated mobile work platforms?							
Chains, Ropes, and Drive Belts	Are chains, ropes, and drive belts guided mechanically onto moving pulleys, sprockets, or drums, except where equipment is designed specifically for hand feeding?					56.14212		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Ventilation and Shielding for Welding	Are welding operations shielded when performed at locations where arc flash could be hazardous? Are all welding operations well-ventilated?					56.14213		
Train Warnings	Are warnings that are audible above the surrounding noise level sounded immediately prior to moving trains and when trains approach persons, crossings, other trains on adjacent tracks, and any place where the train operator's vision is obscured?					56.14214		
Coupling or Uncoupling Cars	Is coupling or uncoupling cars manually done only when trains are brought to a complete stop, then moved at minimum tram speed until the coupling or uncoupling activity is completed?					56.14215		
	Is coupling or uncoupling prohibited from the inside of curves unless the railroad and cars are designed to eliminate hazards to persons?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Backpoling	Is backpoling of trolleys prohibited except where there is inadequate clearance to reverse the trolley pole, and then done only at the minimum tram speed of the trolley?					56.14216		
Securing Parked Railcars	Are parked railcars blocked securely unless held effectively by brakes?					56.14217		
Movement of Equipment on Adjacent Tracks	Is a chain, cable, or draw bar of sufficient strength used when a locomotive on one track is used to move rail equipment on adjacent tracks?					56.14218		
Brakeman Signals	When a train is under the direction of a brakeman and the train operator cannot clearly recognize the brakeman's signals, does the train operator bring the train to a stop?					56.14219		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
PERSONAL PROTECTION SAFETY DEVICES AND MAINTENANCE REQUIREMENTS								
First-aid Materials	Is an adequate supply of first-aid materials, including stretchers and blankets, provided at places convenient to all working areas? Is water or neutralizing agents available where corrosive chemicals or other harmful substances are stored, handled, or used?					56.15001		
Hard Hats	Do all persons wear suitable hard hats when in or around the mine or plant where falling objects may create a hazard?					56.15002		
Protective Footwear	Do all persons wear suitable protective footwear when in or around an area of the mine or plant where a hazard exists which could cause an injury to the feet?					56.15003		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Eye Protection	Do all persons wear safety glasses, goggles, or face shields, or other suitable protective devices at the mine where a hazard exists which could cause injury to unprotected eyes?					56.15004		
Safety Belts and Lines *(Accounted for 1% of S&G/Crushed Stone violations in 1997)*	Do persons wear safety belts and lines where there is a danger of falling? Does a second person tend the lifeline when bins, tanks, or other dangerous areas are entered?					56.15005		
Protective Equipment and Clothing for Hazards and Irritants	Is special protective equipment and clothing provided, maintained in a sanitary and reliable condition, and used whenever hazards of process or environment, chemical hazards, radiological hazards, or mechanical irritants are encountered?					56.15006		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Protective Equipment or Clothing for Welding, Cutting, or Working With Molten Metal	Is protective clothing or equipment, and face shields or goggles worn when welding, cutting, or working with molten metal?					56.15007		
Eye Protection When Operating Grinding Wheels	Are face shields or goggles in good condition worn when operating a grinding wheel?					56.15014		
Life Jackets and Belts	Are life jackets or belts worn where there is danger from falling into water?					56.15020		
MATERIALS STORAGE AND HANDLING								
Stacking and Storage of Materials	Are supplies stacked or stored in a manner which eliminates tripping or fall-of-materials hazards?					56.16001		

* C=Certification / R=Record / T=Training

DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Bins, Hoppers, Silos, Tanks, and Surge Piles	Are bins, hoppers, silos, tanks, and surge piles equipped with mechanical devices or other effective means of handling materials so that persons are not required to enter or work where they are exposed to entrapment by caving or sliding materials?					56.16002		
	Are bins, hoppers, silos, tanks, and surge piles equipped with supply and discharge operating controls, located so that spills and overruns will not endanger persons?							
	Are suitable walkways or passageways provided around bins, hoppers, silos, tanks, and surge piles?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Where persons are required to enter any bin, hopper, silo, tank, or surge pile, for maintenance or inspection purposes, are ladders, platforms, or staging provided? (No person shall enter the facility until the supply and discharge of materials have ceased and the supply and discharge equipment is locked out.							
	Do persons entering the facility wear a safety belt or harness equipped with a lifeline suitably fastened?							
	Is a second person, equipped with a safety belt or harness, stationed near where the lifeline is fastened and constantly adjusting it or keeping it tight as needed, with minimum slack?							
Storage of Hazardous Materials	Are materials that can create hazards if accidentally liberated from their containers stored in a manner that minimizes the dangers?					56.16003		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Containers for Hazardous Materials	Are hazardous materials stored in approved containers and labeled appropriately?					56.16004		
Securing Gas Cylinders *(Accounted for 2% of S&G/Crushed Stone violations in 1997)*	Are compressed and liquid gas cylinders secured in a safe manner?					56.16005		
Protection of Gas Cylinder Valves *(Accounted for 2% of S&G/Crushed Stone violations in 1997)*	Are valves on compressed gas cylinders protected by covers when being transported or stored, and by a safe location when the cylinders are in use?					56.16006		
Tag lines, Hitches, and Slings	Are tag lines attached to loads that may require steadying or guidance while suspended? Are the hitches and slings used to hoist materials suitable for the particular material handled?					56.16007		
Suspended Loads	Do persons stay clear of suspended loads?					56.16009		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Dropping Materials From Overhead	Is the drop area cleared then guarded, or a warning given, before dropping material from an overhead elevation?					56.16010		
Riding Hoisted Loads or on the Hoist Hook.	Do persons refrain from riding on loads being moved by cranes or derricks, or ride hoisting hooks, unless such method eliminates a greater hazard?					56.16011		
Storage of Incompatible Substances	Are chemical substances stored to prevent inadvertent contact with each other where the contact could cause a violent reaction or the liberation of harmful fumes or gases?					56.16012		
Working With Molten Metal	Are suitable warnings given before molten metal is poured and before a container of molten metal is moved?					56.16013		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Operator-Carrying Overhead Cranes	Are operator-carrying overhead cranes provided with bumpers at each end of each rail; automatic switches to halt uptravel of the blocks before they strike the hoist; effective audible warning signals within easy reach of the operator; and a means to lock out the disconnect switch?					56.16014		
Work or Travel on Overhead Crane Bridges	Are persons kept from working from or traveling on the bridge of an overhead crane unless the bridge is provided with substantial foot walks with toe boards and railings the length of the bridge?					56.16015		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Lift Trucks	Are fork and other similar types of lift trucks operated with the upright tilted back to steady and secure the load; the load in the upgrade posi-tion when ascending or descending grades in excess of 10%; the load not raised or lowered en route except for minor adjustments, and a load-engaging device down-grade when traveling un-loaded on all grades?					56.16016		
ILLUMINATION								
Illumination of Surface Working Areas	Is illumination, sufficient to provide safe working con-ditions, provided in and on all surface structures, paths, walkways, stairways, switch panels, loading and dumping sites, and work areas?					56.17001		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
SAFETY PROGRAMS								
Examination of Working Places *(Accounted for 2% of S&G/Crushed Stone violations in 1997)*	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?					56.18002	R	
	Is a record of workplace examinations kept for a period of one year?							
	Is the person conducting the examination immediately reporting imminent danger conditions? Are persons withdrawn except those necessary to correct the condition?							
New Employees	Are new employees indoctrinated in safety rules and safe work procedures?					56.18006		
Designation of Person in Charge	Is a competent person designated to take charge in case of an emergency?					56.18009		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
First Aid *(Accounted for 2% of S&G/Crushed Stone violations in 1997)*	Is an individual capable of providing first aid available on all shifts? Is first aid training made available to all interested miners?					56.18010	T	
Emergency Telephone Numbers	Are emergency telephone numbers posted at appropriate telephones?					56.18012		
Emergency Communi-cations System	Is a suitable communication system provided at the mine to obtain assistance in the event of an emergency?					56.18013		
Emergency Medical Assistance and Transportation	Have arrangements been made in advance for obtain-ing emergency medical as-sistance and transportation for injured persons?					56.18014		
Working Alone	Is it forbidden to assign, or allow, or require that employees perform work alone in any area where hazardous conditions exist that would endanger his safety, unless he can communicate with others, can be heard, or can be seen?					56.18020		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
PERSONNEL HOISTING								
Application	Are emergency hoisting facilities conforming to the extent possible to safety requirements for other hoists, and are they adequate to remove persons from the mine with a minimum of delay?					56.19000		
HOISTS								
Rated Capacities	Do hoists have rated capac-ities consistent with the loads handled and the recom-mended safety factors of the ropes used?					56.19001		
Anchoring	Are hoists anchored securely?					56.19002		
Driving Mechanism Connections	Are belt, rope, or chains not used to connect driving mechanisms to man hoists?					56.19003		
Brakes	Are hoists, used to hoist persons, equipped with a brake or brakes capable of holding its fully loaded cage, skip, or bucket at any point in the shaft?					56.19004		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Locking Mechanism for Clutch	Is the operating mechanism of the clutch of every man-hoist drum provided with a locking mechanism, or interlocked electrically or mechanically with the brake to prevent accidental withdrawal of the clutch?					56.19005		
Automatic Hoist Braking Devices	Are automatic hoists provided with devices that automatically apply the brakes in the event of power failure?					56.19006		
Overtravel and Overspeed Devises	Are all man hoists provided with devices to prevent overtravel? When used in shafts over 100 feet in depth, do they have over-speed devices?					56.19007		
Friction Hoist Synchronizing Mechanisms	Are friction hoists equipped with synchronizing mechanisms that re-calibrate the overtravel devices and position indicators? This is needed where creep or slip may alter the effective position of safety devices.					56.19008		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Position Indicator	Is an accurate and reliable indicator of the position of the cage, skip, bucket, or cars provided in the shaft?					56.19009		
Location of Hoist Controls	Are controls placed or housed so that the noise from machinery or other sources will not prevent hoist opera-tors from hearing signals?					56.19010		
Drum Flanges	Are drum flanges extended radially a minimum of 4 inches or three rope diame-ters beyond the last wrap, whichever is the lesser?					56.19011		
Grooved Drums	Are the grooves on grooved drums of suitable size and pitch for the ropes used?					56.19012		
Diesel and Other Fuel-Injection-Powered Hoists	Are diesel or similar fuel injection engines, used to power hoists, equipped with a damper or other cutoff in its air intake system? Is the control handle clearly labeled to indicate that its intended function is for emergency stopping only?					56.19013		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Friction Hoist Overtravel Protection	Are tapered guides or other approved devices installed above and below the limits of regular travel of a friction hoist installation?					56.19014		
Emergency Braking for Electric Hoists	Does each electric hoist have a manually operable switch that will initiate emergency braking action? Is the switch located within reach of the hoist operators in case the manual controls of the hoist fail?					56.19017		
Overtravel By-pass Switches	Does an overtravel by-pass switch function so as to allow the conveyance to be moved through the over-travel position when the switch is held in the closed position? Does it return automatically to the open position when released?					56.19018		
WIRE ROPES								
Minimum Rope Strength	At installation, does the nominal strength of wire ropes meet established rope strength values? (Refer to formulas)					56.19021		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Initial Measurement	Are measurements made of the rope diameter of newly installed wire ropes after initial rope stretch, but before visible wear occurs, to establish a baseline for subsequent measurements? Is a record of the measurements and the date recorded by the person making the measurements?					56.19022	R/C	
Examinations	Are wire ropes visually examined along its entire active length at least once every fourteen calendar days? Are the examinations certified by signature and date?					56.19023		
	When any visible condition that results in a reduction of rope strength is present, is the affected portion of the rope examined daily?							
	Have newly installed wire ropes, or any rope that has not been examined in the previous fourteen calendar days, been examined before any person is hoisted?							

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Are non-destructive tests made at least once every six months? Are the tests recorded and retained?							
Retirement Criteria	Is the retirement criteria used to remove from service any damaged or deteriorated ropes?					56.19024		
Load End Attachments	Are wire ropes attached to the load by a method that develops at least 80% of the nominal strength of the rope?					56.19025		
	Is zinc (spelter) used for socketing wire ropes? (Except for terminations where use of other materials is a design feature)							
	Are load end attachment methods using splices prohibited?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Drum End Attachment	For drum end attachments, are wire ropes attached securely by clips after making one full turn around the drum spoke; securely by clips after making one full turn around the shaft, if the drum is fixed to the shaft; or by properly assembled anchor bolts, clamps, or wedges, provided that the attachment is a design feature of the hoist drum?					56.19026		
	Is a minimum of three full turns of wire rope on the drum when the rope is extended to its maximum working length?							
End Attachment Re-termination	Are damaged or deteriorated wire ropes removed by cutoff and the rope reterminated where there is more than one broken wire at an attachment; or improper installation of an attachment; or slippage at an attachment; or evidence of deterioration from corrosion at an attachment?					56.19027		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
End Attachment Replacement	Are wire rope attachments replaced when cracked, deformed, or excessively worn?					56.19028		
Safety Device Attachments	Are safety device attachments to hoist ropes selected, installed, and maintained according to manufacturer's specifications to minimize internal corrosion and weakening of the hoist rope?					56.19030		
HEADFRAMES AND SHEAVES								
Headframe Design	Are all headframes constructed with suitable design considerations to allow for all dead loads, live loads, and wind loads?					56.19035		
Headframe Height	Are headframes high enough to provide clearance for overtravel and safe stopping of the conveyance?					56.19036		
Fleet Angles	Are fleet angles on hoists installed after 11/15/79 no greater than one and one-half degrees for smooth drums or two degrees for grooved drums?					56.19037		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Platforms Around Elevated Head Sheaves	Are platforms with toe boards and handrails provided around elevated head sheaves?					56.19038		
CONVEYANCES								
Metal Bonnets	Are man cages and skips used for hoisting or lowering employees or other persons in any vertical shaft or any incline-shaft with an angle of inclination of forty-five degrees from the horizontal, covered with a metal bonnet?					56.19045		
Hoisting Persons in Buckets	Are buckets used to hoist persons only during shaft sinking operations, inspection, maintenance, and repairs?					56.19049		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Bucket Requirements	Are buckets used to hoist persons during vertical shaft sinking operations securely attached to a crosshead when traveling in either direction between the lower and upper crosshead parking locations; have overhead protection when the shaft depth exceeds 50 feet; have sufficient depth or a suitably designed plat-form to transport persons safely in a standing position; and have devices to prevent accidental dumping where the bucket is supported by a bail attached to its lower half?					56.19050		
Rope Guides	Are rope guides used in shafts other than in shaft sinking operations of a type of lock coil construction?					56.19054		

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DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
HOISTING PROCEDURES							
Availability of Hoist Operator for Manual Hoists	Is a qualified hoistman within hearing of the telephone or signal device at all times while any person is underground where a manually operated hoist is used?				56.19055		
Availability of Hoist Operator for Automatic Hoists	Is a competent hoist operator readily available at or near an automatic hoist while any person is underground?				56.19056		
Hoist Operator's Physical Fitness	Have hoist operators had a medical examination to certify their fitness within the preceding 12 months?				56.19057	C	
Experienced Hoist Operators	Are only experienced hoist operators operating hoists, except in cases of emergency or the training of new hoist operators?				56.19058		
Maximum Hoisting Speeds	Is the safe speed for hoisting persons determined and followed for each shaft? (Speeds should not exceed 2,500 feet per minute, except in an emergency)				56.19061		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Maximum Acceleration and Deceleration	Are normal operating acceleration and deceleration speeds kept at 6 feet per second per second or less? Is the deceleration speed kept at 16 feet per second per second during emergencies?					56.19062		
Persons Allowed in Hoist Rooms	Are only authorized persons allowed in hoist rooms?					56.19063		
Lowering Conveyances by the Brakes	Are conveyances lowered by brakes alone only during emergencies?					56.19065		
Maximum Riders in a Conveyance	In shafts inclined over 45 degrees, is the maximum number of persons permitted to ride in a hoisting conveyance posted and each person provided a minimum of 1.5 square feet of floor space?					56.19066		
Trips During Shift Changes	Is an authorized person in charge of each trip in which persons are hoisted?					56.19067		
Orderly Conduct in Conveyances	Do persons enter, ride, and leave conveyances in an orderly manner?					56.19068		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Entering and Leaving Conveyances	Do persons enter or leave conveyances only when they are not in motion or only before the move signal has been given?					56.19069		
Closing Cage Doors or Gates	Are cage doors or gates closed while persons are being hoisted?					56.19070		
Riding in Skips or Buckets	Are persons kept from riding in skips or buckets with muck, supplies, materials, or tools other than small hand tools?					56.19071		
Skips and Cages in Same Compartment	Are cages used in combination with skips enclosed to protect personnel from flying material, and the hoist speed reduced to man speed? Are personnel not hoisted with muck during shift changes?					56.19072		
Hoisting During Shift Changes	Are rock or supplies not hoisted in the same shaft as persons during shift changes unless the compartments and dumping bins are partitioned to prevent spillage into the cage compartment?					56.19073		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Riding the Bail, Rim, Bonnet, or Crosshead	Do persons ride the bail, rim, bonnet, or crosshead of any shaft conveyance only when necessary for inspection and maintenance, and then only with suitable protection?					56.19074		
Use of Open Hooks	Are open hooks never used to hoist buckets or other conveyances?					56.19075		
Maximum Speeds for Hoisting Persons in Buckets.	Are speeds of 500 feet per minute or less used when hoisting persons in buckets? Is the speed reduced to 200 feet per minute or less when within 100 feet of the intended station?					56.19076		
Lowering Buckets	Are buckets stopped about 15 feet from the shaft bottom to await a signal from one of the crew on the bottom for further lowering?					56.19077		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Hoisting Buckets from the Shaft Bottom	Are buckets stopped and stabilized 3 feet above the shaft bottom before continuing? Is hoisting done at minimum speed and is the signaling device attended constantly until the bucket reaches the guides? Is the signaling device attended until the crosshead has been engaged when hoisting persons?					56.19078		
Blocking Mine Cars	Are mine cars blocked at all landings and on the cage when hoisted by cage or skip?					56.19079		
Hoisting Tools, Timbers, and Other Materials	Are tools, timbers, or other materials being transported in a shaft by means of a bucket, skip, or cage, secured or so placed that they will not strike the sides of the shaft?					56.19080		
Conveyances Not in Use	Are conveyances controlled by a hoist operator released and raised or lowered a suitable distance when not in use to prevent persons from boarding or loading?					56.19081		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Overtravel Backout Device	Is a manually operated device installed on each electric hoist that will allow the conveyance or counter-balance to be removed from an overtravel position? Does such device not release the brake, or brakes, holding the overtraveled conveyance or counterbalance until sufficient drive motor torque has been developed?					56.19083		
SIGNALING								
Dual Signaling Systems	Are there two effective approved methods of signaling between each of the shaft stations and the hoist room, one of which has to be a telephone or speaking tube?					56.19090		
Signaling Instructions to Hoist Operator	Do hoist operators accept instructions only by the regular signaling system, unless it is out of order? If it is out of order or during an emergency, does the hoist operator only accept instructions from authorized persons?					56.19091		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Signaling from Conveyances	Is there a method provided to signal the hoist operator from cages or other conveyances at any point in the shaft?					56.19092		
Standard Signal Code	Is there a standard code of hoisting signals adopted and used at the mine? Movement on a "one bell" signal is prohibited.					56.19093		
Posting Signal Code	Is a legible signal code posted prominently in the hoist house within easy view of the hoist operator, and at each place where signals are given or received?					56.19094		
Location of Signal Devices	Are hoisting signal devices positioned within easy reach of persons on the shaft bottom or constantly attended by a person stationed on the lower deck of the sinking platform?					56.19095		
Familiarity With Signal Code	Are persons responsible for receiving or giving signals for cages, skips, and man trips familiar with the posted signaling code?					56.19096		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
SHAFTS								
Shaft Landing Gates	Are shaft landings equipped with substantial safety gates so constructed that materials will not go through or under them? Are they kept closed except when loading or un-loading shaft conveyances?					56.19100		
Stopblocks and Derail Switches	Are positive stopblocks or a derail switch installed on all tracks leading to shaft collars or landings?					56.19101		
Shaft Guides	Are means provided to guide the movement of a shaft conveyance?					56.19102		
Dumping Facilities and Loading Pockets	Are dumping facilities and loading pockets constructed so as to minimize spillage into the shaft?					56.19103		
Clearance at Shaft Stations	Is suitable clearance provid-ed at shaft stations to allow safe movement of persons, equipment, and materials?					56.19104		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Landings With More Than One Shaft Entrance	Is a safe means of passage provided around an open shaft compartment on landings with more than one entrance to the shaft?					56.19105		
Shaft Sets	Are shaft sets kept in good repair and clean of hazardous materials?					56.19106		
Precautions for Work in Compartment Affected by Hoisting Operation	Are hoist operators informed when persons are working in a compartment affected by that hoisting operation and a "Men Working in Shaft" sign posted at the hoist?					56.19107		
Posting Warning Signs During Shaft Work	Are "Men Working in Shaft" signs posted at all devices controlling hoisting operations when persons are working in the shaft?					56.19108		
Shaft Inspection and Repair	Are substantial platforms equipped with bonnets or equivalent overhead protection provided for persons doing shaft inspection and repair work in vertical shafts?					56.19109		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Overhead Protection for Shaft Deepening Work	Is a substantial bulkhead or equivalent protection provided above persons at work deepening a shaft?					56.19110		
Shaft-sinking Ladders	Are substantial fixed ladders provided from the collar to as near the shaft bottom as practical during shaft sinking operations, or is an escape hoist powered by an emergency power source provided? Is a chain ladder, wire rope ladder, or other extension ladder used from the fixed ladder or lower limit of the escape hoist to the shaft bottom when persons are on the shaft bottom?					56.19111		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
INSPECTION AND MAINTENANCE								
Procedures for Inspection, Testing, and Maintenance	Is a systematic procedure of inspection, testing, and maintenance of shafts and hoisting equipment developed and followed? Is the hoist shut down and not used until any malfunction has been located and repaired or adjustments have been made?					56.19120		
Recordkeeping	Does the person performing inspections, tests, and maintenance of hoisting equipment certify by signature and date they have been done? Are records kept of any part that is not functioning properly, and kept for one year?					56.19121	C/R	
Replacement Parts	Do parts used to repair hoists have properties that will ensure the proper and safe function of the hoist?					56.19122		

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Examinations and Tests at Beginning of Shift	Is the hoist operator examining the hoist and testing over travel, deadman controls, position indicators, and braking mechanisms at the beginning of each shift?					56.19129		
Conveyance Shaft Test	Is the empty hoist operated at least one round trip after repairs; carrying oversize or overweight materials; after blasting in or near the shaft; or if the hoist has been idle for one shift or longer, before hoisting persons?					56.19130		
Hoist Conveyance Connections	Are hoist conveyance connections inspected at least once during any 24-hour period that it is used for hoisting persons?					56.19131		
Safety Catches	Was a performance drop test made of hoist conveyance safety catches at or before installation? Was the test certified by the manufacturer or a registered professional engineer?					56.19132	C	

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	DESCRIPTION	YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
	Was the functioning of the safety catches tested after installation and before use? Are the safety catches tested at the beginning of any seven day period during which the conveyance is to be used?							
	Are safety catches inspected by a competent person at the beginning of any 24-hour period that the conveyance is to be used?							
Shaft	Are shafts inspected before use by a competent person if they have not been inspected within the past 7 days?					56.19133		
Sheaves	Are sheaves inspected weekly and kept properly lubricated?					56.19134		
Rollers in Inclined Shafts	Are rollers used in operating inclined shafts lubricated, properly aligned, and kept in good repair?					56.19135		

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
MISCELLANEOUS								
Intoxicating Beverages and Narcotics	Are intoxicating beverages and narcotics not permitted or used in or around the mine? Are persons under the influence of alcohol or narcotics removed from the mine?					56.20001		
Potable Water	Is an adequate supply of potable drinking water provided at all working areas? Are common drinking cups and containers prohibited? Is a sanitary container for unused cups and a receptacle for used cups provided where single service cups are used?					56.20002		
	When ice not made from potable water is used to cool water, is it kept from contact with the water?							
	Are potable water outlets posted?							
	Are potable water systems constructed to prevent back flow or back siphonage of non-potable water?							

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DESCRIPTION		YES ✓	NO ✓	N/A ✓	CORRECTIVE ACTION NEEDED	STANDARD	C/R/T *	DATE RESOLVED
Housekeeping *(Accounted for 4% of S&G/Crushed Stone violations in 1997)*	Are workplaces, passageways, storerooms, and service rooms kept clean and orderly? Are floors maintained in a clean and so far as possible, dry condition? Is drainage maintained and false floors, platforms, mats, or other dry standing places provided where wet processes are used? Are floors, working places, and passageways kept free from protruding nails, splinters, holes, or loose boards?					56.20003		
Carbon Tetrachloride	Is carbon tetrachloride banned from use?					56.20005		
Toilet Facilities	Are toilet facilities provided at locations compatible with mine operations, and readily accessible to mine personnel?					56.20008		
	Are toilet facilities kept clean and sanitary? Are separate toilet facilities provided for each sex except single occupancy rooms that can be locked from the inside?							

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