

# **Coal GIP Handbook Changes**

# Summary of Changes

- **One-Stop-Shop Handbook**
- **Designed to be a Living Document**
- **Hyperlinked Reference Materials (e.g. NFPA Code, Handbooks, & MSHA Forms)**
- **Inserted Some Check List (e.g. AMS, Refuge Alternatives, & Highwall Inspection)**
- **Rock Dust Sampling Changed**
- **Inspector Discussions with Miners on Roof and Ventilation Plans**
- **Worded to make Consistent Across Nation.**

# INTRODUCTION

# Miners' and Operators' Representatives

- **A representative of the operator and a representative authorized by miners shall be given an opportunity to accompany inspectors during the physical inspection of any coal or other mine, including areas where only contractors are working, for the purpose of aiding such inspection and participating in pre- or post-inspection conferences held at the mine.**

# **GENERAL PROCEDURES**

# Advance Notice.

**The Mine Act prohibits advance notice of MSHA inspection activities. When an inspector learns that an operator, contractor, or any other person has given advance notice of an impending inspection, the inspector should issue a citation under Section 104(a) of the Mine Act, alleging a violation of Section 103(a) of the Act.**

- **Advance notice includes subtle forms of communication (such as coded references, like “company is here,” or “visitors are on site”) intended to disguise communications announcing MSHA’s presence at a mine. Communications warning of inspection pending activity after a multi-day inspection has begun also constitute advance notice.**

- **However, the physical conditions of a mine may indicate that mine personnel received advance notice and acted to conceal violations.**
- **Rock dust applied over obvious accumulations of loose coal and coal dust in limited or discrete areas near the inspection location, or new ventilation curtains installed where there are indications that no mining had occurred after the curtains were hung are conditions that may indicate advance notice occurred.**

- **MSHA enforcement personnel should take precautions not to disclose their intentions to conduct an inspection in a specific location.**
- **Examples of such precautions include reviewing examination books for several areas of the mine, rather than only the specific area that they intend to inspect that day, and making a general request for transportation, rather than requesting transportation to travel to a specific location.**

# **Documentation of Enforcement Actions**

**Section 104(a) of the Mine Act requires that each citation or order be in writing and describe with particularity the nature of the violation, including a reference to the provision of the Mine Act, standard, rule, regulation, or order alleged to have been violated. In addition, the citation is required to fix a reasonable time for the abatement of the violation.**

**Facts relevant to the condition or practice cited for each enforcement action and information regarding the negligence and gravity determinations should be documented. To ensure that quality citations and orders are issued, inspectors should document the following information:**

- 1. The time (24 Hr. Clock) the inspector observed the violation.**
- 2. A description of the conditions and practices causing and constituting the violation of a specific regulation or section of the Mine Act. They must be accurately identified and described, including a means to quantify the size and extent of the cited condition or practice (such as dimensions, periods of time, and number of occurrences). The names of individuals shall not be included in the condition or practice section of the citation.**
- 3. The standard or section of Act violated.**
- 4. The location or equipment where the violation or hazard exists.**

- 5. The following gravity factors, when applicable:  
Mine characteristics, such as methane liberation, geological conditions, accident history, and other physical factors that would affect the likelihood of the occurrence.**
  - a. The number of persons exposed to the hazard and the duration and frequency of this exposure under continued normal mining practices.**
  - b. The type of injury or illness resulting from the occurrence of the event, including how this was determined such as industry history, personal knowledge, or experience.**
  - c. The number of persons who were actually injured or became ill as a result of the hazard caused by the violation or the number of persons who could be affected if the anticipated event occurred, including how this was determined.**

**6. The following negligence factors, when applicable:**

- a. The title of person(s) who knew, or had reason to know, that the violation existed and how this was evidenced. Document the name of any person who knew or had reason to know that the violation existed in your inspection notes only, as the condition or practice section of citations should not contain the name of any person.**
  
- b. Mitigating circumstances including, but not limited to, actions taken by the operator to prevent or correct hazardous conditions or practices. The number of mitigating circumstances documented should be used in conjunction with the definitions for degrees of negligence listed in [§ 100.3\(d\)](#). The failure of the operator to exercise a high standard of care for miners constitutes negligence.**
  
- c. Facts indicating the length of time that the violation existed.**

- 7. For unwarrantable failures of the operator to comply with a mandatory safety or health standard, include the factors that explain how the operator engaged in aggravated conduct. The following factors, when applicable, should be documented to explain how the operator engaged in aggravated conduct:**
  - a. the obviousness or extensiveness of the cited condition or practice;**
  - b. the length of time that the cited condition or practice existed and whether it was excessive;**
  - c. any similar violations that were issued at the mine or to the contractor in the recent past;**
  - d. the title of any agent of the operator or contractor who conducted an examination or had been in the area, or was aware of the existence of the condition, including dates and times. Document the name of any agent of the operator or contractor who conducted an examination or had been in the area, or was aware of the existence of the condition in your inspection notes only, as the condition or practice section of the citation/order should not contain the name of any person;**

- e. facts related to whether the cited condition or practice had been reported to the operator or contractor who then allowed it to exist, without correcting or adequately addressing the problem, for a period of time;**
- f. the title of any supervisor or an agent of the operator or contractor who committed or allowed the condition or practice to exist. Document the name of any supervisor or an agent of the operator or contractor who committed or allowed the condition or practice to exist in your inspection notes only, as the condition or practice section of citation/order should not contain the name of any person;**
- g. whether the mine operator or contractor made reasonable efforts to correct the cited condition or practice; and**
- h. other factors, not identified above, that resulted in a negligence evaluation by the inspector of “high” or “reckless” disregard.**

**8. The time the citation/order/safeguard was set for abatement and the time it was terminated. Describe in detail the specific action(s) taken to correct the cited condition(s) or practice(s) that justifies termination or extension.**

**If an enforcement action results from failure to comply with an approved plan, permit, or petition, a copy of the related approval letter and pertinent page(s) shall be included with the inspector's notes. When enforcement or subsequent action(s) are taken based upon the results of analysis report(s), that report shall be included with the inspector notes.**

# **REGULAR SAFETY and HEALTH INSPECTION PROCEDURES**

# Cleanup Program

**Inspectors shall evaluate the adequacy and effectiveness of the operator's cleanup program continually by reviewing the enforcement history for regular cleanup and removal of accumulations of coal and float coal dust, loose coal, and other combustibles.**

**The written program must include details regarding how the operator will regularly control the accumulation of float coal dust, loose coal and other combustibles. These details could involve the quantity, schedule, and method for rock dust application in various locations. MSHA guidance to the mining industry interprets that mine operators should include the following elements in their written cleanup program:**

- a. The regular cleanup methods for the removal of accumulations of coal and float coal dusts, loose coal, and other combustibles in all active workings or on diesel-powered and electrical equipment in these areas;**
- b. The equipment and methods used for applying rock dust to maintain 80% Total Incombustible Content (TIC) as required by § 75.403 and the methods to continuously apply rock dust to areas where coal dust is generated and float coal dust accumulates; and**
- c. The means to evaluate the effectiveness of their cleanup program, such as review of preshift examination records, rock dust usage, rock dust sampling results, and compliance history. Mine operators should place emphasis on critical areas such as longwall tailgates, belt transfer points, section returns, and bleeder entries.**

## **To evaluate the mine operator's cleanup program, inspectors should:**

- **Maintain a copy of the current cleanup program in the uniform mine file (UMF);**
- **Compare the UMF cleanup program with the current cleanup program. Changes should be justified, and**
- **The mine operator should modify the cleanup program to address significant or persistent violations of Subpart E. The inspector should include necessary modifications of the cleanup program in the actions to terminate a citation or order.**

**If a mine operator has repeat violations of §§ 75.400 (Accumulation of combustible materials), 75.402 (Rock dusting) or 75.403 (Maintenance of incombustible content of rock dusting)**

- Inspection personnel should discuss the adequacy of the cleanup program with the mine operator and consider requiring the use of more effective methods for controlling and maintaining the incombustible content of the combined coal dust, rock dust, and other dust along with elevated enforcement actions.**
- Inspection personnel should also consider changes to the cleanup program which would require the use of bulk dusters, trickle dusters, or high-pressure rock-dusting machines to continuously rock dust the areas downwind of belt transfers, the returns of active sections, the tailgates of longwalls, and the bleeder entries.**

**Rock dusting in non-pillared worked-out areas prior to abandoning sections or other underground areas, efforts should be made to assure that the incombustible content of mine dust is in full compliance with the regulations. Afterwards, rock dust can be blown into inaccessible areas if accumulations of float coal dust are observed at the approaches to the inaccessible areas.**

# **Filter Self-Rescuers (FSRs) and Self-Contained Self Rescuer (SCSRs)**

**The inspector shall inspect and evaluate FSRs and SCSRs.**

- **MSHA inspectors should inspect 50% of SCSRs worn or carried each E01 regular inspection alternating as close as practicable the other 50% on the following E01 regular inspection.**
- **100% of the SCSRs stored on the section and/or on the mantrip for sections.**
- **A representative number but no less than 10% of outby SCSRs should be inspected. If defects are found, additional SCSRs should be inspected. All locations where SCSRs are required to be stored outby and/or stored on underground mobile equipment shall be inspected for compliance with applicable standards and approved plans.**

# **CSE Corporation SR-100 Self-Contained Self-Rescuer:**

**No later than December 31, 2013, operators must:**

- 1) Finish phase-out of SR-100s. No SR-100s should remain in any mine after December 31, 2013.**

# **Review of Training Plans and** **Training Records**

- **The inspector shall review a representative number of training records (at least 10%) of all persons working at the mine.**
- **If the review indicates 25% of the records reviewed have deficiencies, then additional records shall be reviewed.**
- **If a 104(g) order is issued, an Educational Field Services Specialist should conduct a follow-up, and review each applicable approved training record for compliance with applicable standards and approved plans.**

# Mine Records and Postings

**Additional records and posting added to previous handbook listing:**

- **38 underground**
- **15 surface**

**Surface Areas of  
Underground Mines,  
Surface Facilities, or  
Surface Mines**

# Highwalls, Spoil Banks and Ground Control Plans

- **Highwall Inspection Preparation**
- ***Discussions with the Mine Operator and Foremen/Examiners***
- ***Highwall and Pit Area Inspection***

# Oil, Gas, and Coalbed Methane Wells

- Longwall gob wells are specifically developed to assist with methane extraction from active longwall panels and are typically under MSHA jurisdiction.
- Well plugging activities that occur near active mining may be under MSHA jurisdiction.
- The § 75.1200 (Mine map) map should show all oil and gas wells within 500 feet of active mining areas. A petition for modification of § 75.1700 (Oil and gas wells) is needed to plug an oil, gas, or surface directionally drilled horizontal coalbed methane well that will be intersected by a coal mine.

- **Inspect the surface facilities and operation of wells under MSHA jurisdiction. This inspection should include a general safety inspection under Part 77.**
- **Inspect hoisting operations, personal protective equipment and machinery.**
- **Tests for methane (CH<sub>4</sub>) leakage conducted by a qualified person should be made prior to any work on the wellhead and associated equipment. Verify that wellhead equipment (valves, blowers, stacks, etc.) corresponds to specifications in the mine ventilation plan.**

# **Underground Outby Areas**

# Atmospheric Monitoring Systems (AMS)

## **AMS Inspection Check Sheet**

- **Surface Inspection**
- **Underground Inspection**
- **Response to alerts, alarms, warnings, and malfunctions**
- **Training**

# **Other Places Where Miners Work or Travel (Underground)**

**The inspector shall evaluate the mine operator's examination of other areas where miners work or travel. The inspector will assure all areas where miners are required to work or travel are examined in accordance with applicable standards. Locations of other areas where miners work or travel shall be maintained and identified in the ITS. Other work areas and travelways should be inspected for compliance with applicable standards (example: high-voltage cable entries that are not located in regular travelways and other areas normally traveled by the mine personnel on a daily or weekly basis).**

**The inspector shall look for evidence of examinations in the outby areas traveled and determine if the mine examiner had certified with dates, times, and initials (DTIs) that the required examinations were conducted for each area of travel. At least one test for oxygen (O<sub>2</sub>) deficiency and methane (CH<sub>4</sub>) content shall be conducted in each outby area inspected.**

# **Underground Working Sections**

# **Rock Dust Sampling**

# **Roof and Rib Conditions**

**Inspection and Investigation Activities  
Related to Roof Control Plans and  
Related Miner Training:**

- **Roof Bolt Spacing**
- **Roof Support**

# Section Equipment

- **The inspector shall compare the mine operator's record of weekly examination of electrical equipment to electrical equipment in use and available for use. All electrical equipment in use and available for use should be maintained and listed in the ITS.**
- **On at least an annual basis electrical specialists or inspectors who hold a current MSHA electrical qualification card should conduct a complete permissibility inspection of each longwall system.**

# **Underground Diesel** **Equipment**

- **The data from the Diesel Inventory maintained by the mine operator on the MSHA Homepage, Online Tools, Online filing/forms Homepage/Diesel Inventory (provided by the supervisors at the beginning of each E01 regular inspection), should be compared to the equipment and records located at the mine site to determine if changes to the diesel inventory have been provided to MSHA within 7 calendar days after changes are made (§ 72.520(b) (Diesel equipment inventory)).**

# **Evaluation of Non-Permissible Heavy-Duty Diesel-Powered Equipment, Compressors, and Generators Using an Adequate Diesel Particulate Matter (DPM) After-treatment Device:**

**Inspectors will perform two specific evaluations to determine if an adequate DPM after-treatment device is being used.**

**First, the operator's diesel inventory will be reviewed.**

**Second, inspectors, with adequate training and testing equipment, will measure the exhaust gas temperature of diesel-powered machines equipped with a non-ceramic particulate filter.**

# **OTHER INSPECTION-RELATED ACTIVITIES**

# Spot Inspections (103i)

- **Designations for 103(i) spot inspection status shall not be delayed until the start of a new underground mine inspection quarter. New spot inspection status designations shall be made as soon as it has been determined that any coal mine liberates more than the required limits of methane within 24 hours in accordance with the 1977 Mine Act with regards to 103(i) spot inspection designations.**
- **Any type of work in any mine other than normal mine examinations and water pumping shall be considered a working day (e.g., belt moves, mine clean up, rock dusting, power moves, work during vacation shut downs, etc., shall be considered working days).**

- **A limited on-site review of mine examination and/or ventilation records is considered essential to 103(i) inspection activities. The inspection shall pertain to the specific reason the mine was selected for a 103(i) inspection. For example, if a mine is included because it liberates excessive quantities of methane, 103(i) inspections should focus on working section ventilation, general mine ventilation, mining activities related to methane liberation, bleeder systems, seals (including new seal construction), or other areas where methane is likely to accumulate.**

- **When present on a working section, during 103(i) inspection (regarding liberation of excessive methane), the inspector should measure the air quantity in the last open crosscut in each set of entries or rooms on each working section, the quantity of air reaching the intake end of a pillar line, at the end of the face ventilating device (if required) where equipment is being operated, the air velocity at each end of the longwall face, and the quantities approved in the ventilation plan.**
- **The inspector will assure that the face ventilation control devices are installed and maintained in accordance with the approved ventilation plan and visually check that water sprays used for respirable dust suppression are properly maintained and functioning each time the producing working section is inspected.**

- **While conducting the 103(i) spot inspection, activities shall pertain to the specific reason the mine was selected for a 103(i) inspection. For example, if a mine is included because it liberates excessive quantities of methane, 103(i) inspections should focus on mining activities, bleeders, and seals.**
- **Randomly, while conducting 103(i) inspections, the inspector should observe the mine operator calibrating the methane monitor of face equipment.**
- **Checks may be randomly conducted for compliance with §§ 75.400 (Accumulation of combustible materials) and 75.403 (Maintenance of incombustible content of rock dust) during Section 103(i) spot inspections at mines**

# Hazardous Condition Complaint Inspections

- **The Hazard Complaint Procedures Handbook instructs investigators to provide mine operators and miners representatives with a sanitized copy of the hazardous condition complaint allegations (version where all personal identifiable information has been removed), when investigating a Section 103(g) hazardous condition complaint. As described in the Hazard Complaint Procedures Handbook, the sanitized allegations must be written in a way that keeps the identity of complainants confidential.**

- **This sanitized notice shall be provided no later than at the time the investigator arrives at the site where the hazardous conditions allegedly exist. For example, if the hazard was alleged on No. 4 Belt the complaint notice should be given at the time the investigator arrives at the No. 4 Belt. If the hazardous condition complaint addresses more than one location or area of the mine, the written notice can be broken down in parts and each part issued to the operator at the time the investigator travels to the alleged site(s).**

# **SAMPLING PROCEDURES**