Internal Review of MSHA's Actions at the No. 5 Mine Jim Walter Resources, Inc. Brookwood, Tuscaloosa County, Alabama

U.S. Department of Labor
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Program Evaluation and Information Resources

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U.S. Department of Labor
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Table of Contents

Executive Summary

The purpose of this internal review was to evaluate the actions of the Mine Safety and Health Administration (MSHA) prior to the accident at the Jim Walter Resources, No. 5 Mine, and to make recommendations to improve our inspection process to better protect our nation's miners. The internal review compared MSHA's actions with the requirements of the Mine Act, its standards and implementing regulations, and MSHA policies and procedures. The internal review team examined inspection records, traveled underground to the accident area, and interviewed MSHA employees with personal knowledge of pertinent events.

Through enforcement of the Mine Act, MSHA inspection personnel recognized numerous hazardous conditions at the No. 5 Mine and required the operator to take corrective actions in an attempt to achieve a safer and healthier work environment. Their continued dedication to these tasks will be critical to MSHA's mission of improving mine safety and health.

MSHA accident investigators determined that the failure of Jim Walter Resources to comply with mandatory safety standards contributed to the cause and severity of the September 23, 2001, explosions. The mine operator's failure to maintain adequate incombustible content of combined coal dust, rock dust and other dusts; to conduct adequate preshift and on-shift examinations; to support or otherwise control the mine roof; to follow the fire fighting and evacuation plan; and to conduct fire drills at not more than 90-day intervals contributed materially to the cause and severity of the accident.

This internal review identified several deficiencies in MSHA's performance. These weaknesses were found at both the district and headquarters level of MSHA. Many involved oversights that can and should be readily corrected. The identified deficiencies will require a significant commitment from the Agency to resolve. Fundamental factors that affected MSHA's performance included training and mentoring of MSHA personnel, supervision and management, and the Alternative Case Resolution Initiative (ACRI) and Accountability Programs. Inadequacies in each of these areas were manifested in the specific deficiencies documented in this report, and corrective actions and recommendations are provided to better ensure that such lapses do not reoccur.

Deficiencies were identified relevant to inspection procedures, level of enforcement, plan reviews, the ACRI and accountability programs, supervision and management, and headquarters oversight. Although the internal review team identified significant deficiencies in MSHA's actions at the No. 5 Mine, the team did not find evidence that these deficiencies caused the accident.

In addition to the deficiencies identified in this report, the internal review team provided recommendations to improve the probability that the deficiencies do not

reoccur. It is the opinion of the internal review team that several deficiencies were caused by lapses in following established inspection procedures. Inadequate supervision and management, and uncertainties in roles and responsibilities contributed to these deficiencies. Training will not provide a permanent solution for these deficiencies, and actions should be taken on both a district and national level to resolve these latent failures and minimize the probability that such lapses occur during future inspections. However, a few deficiencies were caused by lack of knowledge and understanding. Comprehensive training is the most effective means to improve the probability that these deficiencies are not repeated.

With design improvements to the inspection process, effective supervision and management, refinement of the ACRI and Accountability Programs, and proper training of personnel, it is expected that in the future District 11 will fully exercise its authority and discharge its responsibility to vigorously enforce the safety and health standards at the No. 5 Mine, as well as at all other mines in the District. Most importantly, the corrective measures should improve the inspection process nationwide to better protect all miners.

Background

The *Federal Mine Safety and Health Act of 1977* (Mine Act) states that mine operators, with the assistance of the miners, have the primary responsibility to prevent unsafe and unhealthful conditions and practices in the nation's mines. The Mine Safety and Health Administration (MSHA) has the responsibility to develop and promulgate mandatory safety and health standards, to inspect mines to determine whether there is compliance with these standards, and to investigate accidents to determine their causes.

On September 23, 2001, two separate explosions occurred at approximately 5:20 p.m. and 6:15 p.m. in 4 Section of the Jim Walter Resources, Inc., (JWR) No. 5 Mine near Brookwood, Tuscaloosa County, Alabama. The explosions resulted in fatal injuries to thirteen miners, and serious injuries to three other miners.

At the time of the accident, the mine was under the jurisdiction of MSHA's Coal Mine Safety and Health (CMS&H) District 11 office, which is headquartered in Birmingham, Alabama. A regular safety and health inspection was started on July 6, 2001, and was ongoing at the time of the accident. The last underground MSHA inspection presence at the No. 5 Mine prior to the accident was on September 20, 2001.

Immediately after the accident, MSHA began an investigation into the cause of the accident. A team independent of District 11 conducted the accident investigation. The accident investigation included a physical examination of the mine, as well as a review of pertinent documents and interviews of persons having relevant information.

MSHA's accident investigators determined that roof conditions on 4 Section had deteriorated in an intersection at Survey Station (SS) 13333. Although supplemental roof support material was installed, it was not sufficient to control the mine roof. A roof fall eventually occurred at this intersection, releasing methane and damaging a scoop battery. An explosion occurred within minutes after the roof fall when methane was ignited by arcing of the damaged battery. The explosion damaged critical ventilation controls and disrupted the airflow. The explosion resulted in injuries to four miners. One of the injured miners may have sustained fatal injuries.

Mine management was aware an explosion had occurred that resulted in damage to critical ventilation controls. They did not implement the mine evacuation plan. Methane accumulated in 4 Section, including in the face areas and in the No. 2 entry. Miners re-entered 4 Section to rescue the remaining miner without any handheld gas detectors. While the power circuit to 4 Section was de-energized, the track haulage block light system that extended into 4 Section remained energized.

The second explosion occurred when methane in the No. 2 entry was most likely ignited by the block light system. The failure to recognize inadequately rock-dusted areas and maintain the incombustible content of the mine dust at or above regulatory standards resulted in coal dust becoming the primary fuel for the continued propagation of the explosion. This explosion resulted in at least 12 fatalities and widespread destruction of ventilation controls throughout the mine.

The accident resulted from a failure to accurately determine the seriousness of the deteriorating roof conditions at the SS 13333 intersection. Contributing to the severity of the accident was the failure to maintain the incombustible content of rock-dusted surfaces in accordance with the regulation and failure to identify the conditions during preshift and on-shift examinations. Also contributing to the severity of the accident was the failure of mine management to initiate a mine-wide evacuation and the failure to de-energize all electrical circuits entering 4 Section after the first explosion.

MSHA's official *Report of Investigation, Fatal Underground Coal Mine Explosions, September 23, 2001, No. 5 Mine, Jim Walter Resources, Inc., Brookwood, Tuscaloosa County, Alabama, ID No. 01-01322* was made available to the public on December 11, 2002.

Purpose, Scope, and Methodology

Dave D. Lauriski, Assistant Secretary for Mine Safety and Health, instructed the Director of Program Evaluation and Information Resources to conduct an internal review of MSHA's actions at the No. 5 Mine. The purpose of the review was to evaluate MSHA's actions prior to the accident at the No. 5 Mine, and to make recommendations for improvements where appropriate.

This review compared MSHA's actions with the requirements of the Mine Act, its standards and implementing regulations, and MSHA policies and procedures. The review team examined inspection records, mine plans, the accident investigation report, and pertinent data from MSHA's Management Information System (MIS). The team traveled to the mine site and observed conditions underground including 4 Section. The review team also interviewed MSHA employees with personal knowledge of pertinent events. Bargaining unit employees were afforded the opportunity to have a union representative present during their interviews. All persons interviewed cooperated fully with the review team during these interviews. A list of persons who were interviewed or provided information is included as Appendix A.

The Assistant Secretary also directed Jeffrey Duncan, Director of Educational Policy and Development, and Kevin Burns, current Director of the Small Mines Program, to talk with the miners at the No. 5 Mine regarding their general safety concerns at the mine. This special team, which is not required by the Mine Act, was available for a total of 14 days at a site convenient to the miners but away from the mine. This arrangement was intended to afford the miners at the No. 5 Mine an opportunity to make statements. This team met with the leader of the internal review team and provided information for consideration.

In addition to the issues addressed in this internal review report, the review team conducted an in-depth analysis of several other subjects, including special investigations and the assessment and collection of civil penalties. The review indicated that these subject areas did not affect, influence, or otherwise have a bearing on the effectiveness of MSHA's activities at the No. 5 Mine. Therefore, these subjects are not discussed in this report.

Internal review policy and procedures require that every allegation of possible misconduct on the part of MSHA employees be examined. If the internal review team determines that there is credible evidence of possible employee misconduct, procedures require the team to refer any such allegations for appropriate action to the Administrator of the program area being reviewed.

This report is in no way intended to denigrate the role of the dedicated District 11 personnel who have devoted hundreds of hours conducting inspections. Through enforcement of the Mine Act, these personnel recognized numerous hazardous conditions and required the operator to take corrective action in an attempt to achieve a safer and healthier work environment. Their continued dedication to these tasks will be critical to MSHA's mission of improving mine safety and health.

Report Organization

This report is organized into various categories, each focusing on issues identified by the review team. The categories are as follows: Enforcement Activities; Enforcement of Specific Safety Standards; Plan Approvals; and Management Issues. These issues were derived from information gathered during the review team's evaluation of relevant documents and interviews of MSHA employees.

Each issue described in the report is divided into several sections. The "Requirement" section describes the relevant provisions of the Mine Act, its standards and implementing regulations, and MSHA policies and procedures. The "Statement of Facts" presents the facts as found by the review team during its review. The "Conclusion" contains the review team's analysis of the facts. The "Corrective Action Taken" describes any corrective action taken by MSHA to address the issue since the accident. When "Recommendations" to MSHA were considered appropriate, they are also included.

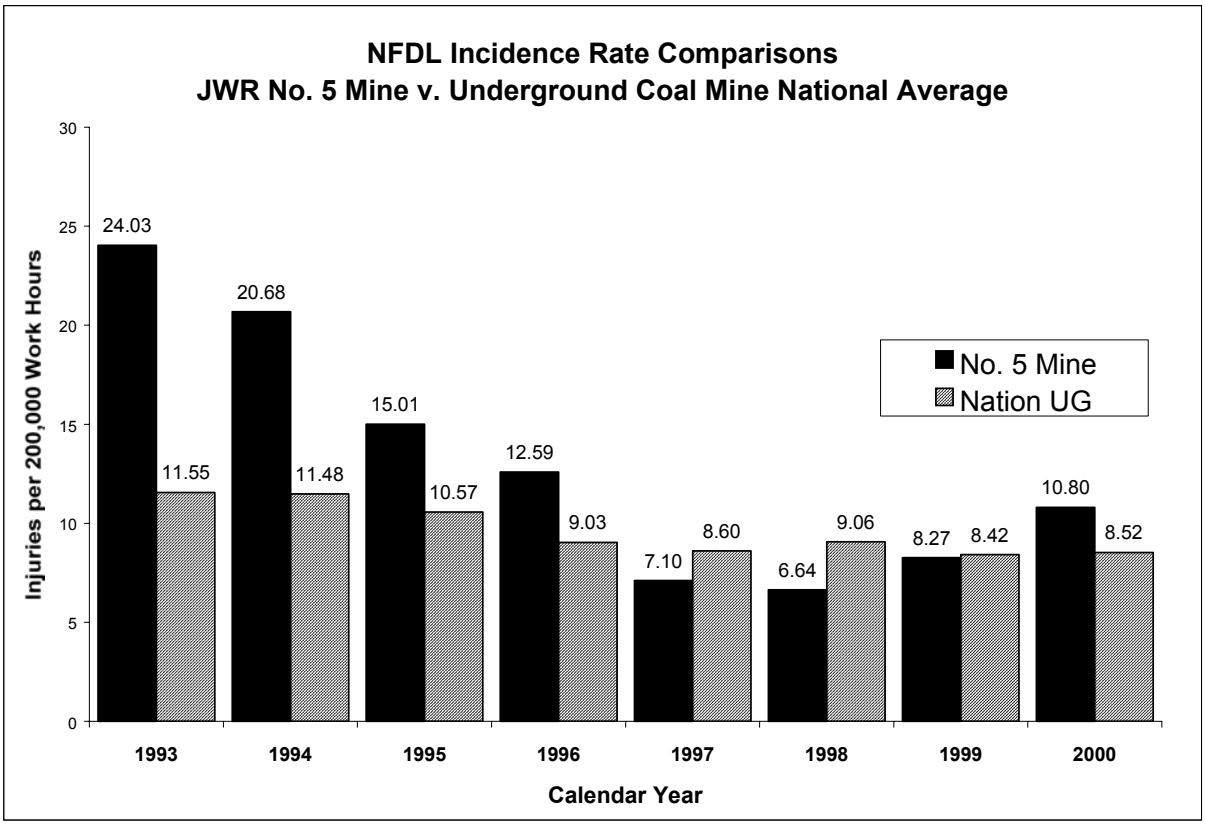
After the Assistant Secretary approved the internal review report, he transmitted the report to the CMS&H Administrator and directed the Administrator to respond to the report's recommendations. A copy of the Administrator's response is included in Appendix B.

Formation of District 11

District 11 was established October 1, 1995, with the staff and boundaries of the former Birmingham Subdistrict, which was part of District 7. The need for a separate district was based on the geographic isolation of Birmingham from District 7, which is headquartered in Barbourville, Kentucky, and the special technical and enforcement concerns associated with the large, gassy mines in Alabama.

Injury Incidence Rates for the No. 5 Mine

The review team examined the nonfatal, days-lost (NFDL) injury incidence rates for the No. 5 Mine from 1993 through the 2nd quarter of 2001. In 1993, the NFDL injury incidence rate for No. 5 Mine was significantly above the national average for underground mines. When District 11 was established, district management placed additional emphasis on accident and injury reduction at mines throughout the District. Inspectors interviewed during the internal review stated that this emphasis played a part in the continued reduction of accidents and injuries at the No. 5 Mine. In 1997, the NFDL rate was reduced to below the national average.



The NFDL injury incidence rates for the first 2 quarters of 2001 were 5.66 and 4.27, respectively. District 11 personnel audited the operator's compliance with the accident and injury reporting requirements of 30 CFR 50 at the No. 5 Mine on June 14, 1989, November 22, 1994, July 2, 1996, January 14, 1997, and November 28, 2001.

Enforcement Activities

This section addresses inspections and investigations conducted under Section (§)103(a) and §103(i) of the Mine Act, the use of enforcement tools provided by §104 and §107 of the Mine Act, Alternative Case Resolution Initiative (ACRI), unwarrantable failure tracking, the No. 5 Mine work order system, and inspection activities just prior to the accident. Refer to Appendix C for a list of all enforcement actions at No. 5 Mine during the review period. Appendix D includes a list of all inspections and investigations conducted at the No. 5 Mine during this period.

Section 103(a) Inspections

Requirement: Section 103(a) of the Mine Act states that authorized representatives of the Secretary shall make inspections of each underground mine in its entirety at least

four times a year (regular inspections) for the purpose of determining whether an imminent danger exists and whether there is compliance with the mandatory health or safety standards or with any citation, order, or decision issued under the Mine Act. Section 103(a) of the Mine Act also authorizes MSHA to conduct other mine inspections.

The *MSHA Program Policy Manual* is a compilation of Agency policies on the implementation and enforcement of the Mine Act and *Title 30 of the Code of Federal Regulations* (30 CFR) and supporting programs. The manual also contains procedural instructions related to conducting inspections.

The *CMS&H General Inspection Procedures Handbook*[1] outlines procedures for conducting inspections of coal mines. Relevant provisions of this handbook require inspectors to:

1. Inspect the mine in its entirety including air courses.

2. Inspect all face equipment (diesel and electric), electric installations, and all mobile equipment as encountered, and document the equipment examined by company number, serial number, or some other means.

3. Examine all record books required by the Mine Act and regulations. Any record books checked must be listed in the inspection notes.

4. Examine at least the preshift and on-shift record books before going underground paying particular attention to record book entries of conditions of an area of the mine that may identify a serious or potentially hazardous problem. The inspector should proceed to this area immediately. Record books checked must be listed in the inspection notes.

Statement of Facts: MSHA's practice is to conduct one complete safety and health inspection each quarter at each underground mine. The manner in which District 11 personnel conducted regular inspections at the No. 5 Mine consisted of the inspector beginning the inspection several weeks prior to the start of the calendar quarter. The regular inspection remained open approximately three months, with frequent inspector presence throughout the entire period. The inspection was completed several weeks prior to the end of the calendar quarter, and the next inspection was subsequently started.

District 11's Hueytown, Alabama, field office was responsible for inspecting the No. 5 Mine. Regular inspection responsibilities for the No. 5 Mine were assigned to a different lead inspector each quarter. Additional inspectors and specialists assisted the lead inspectors in completing regular inspections of the No. 5 Mine.

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[1] *CMS&H General Inspection Procedures Handbook, September 1995, including subsequent revisions up to the time of the accident.*

District 11 personnel conducted four regular inspections of the No. 5 Mine from June 6, 2000, through June 21, 2001. A fifth regular inspection was started on July 6, 2001, and was ongoing when the accident occurred on September 23, 2001.

The internal review team reviewed the inspection data for the five regular inspections prior to the accident at the No. 5 Mine. The team's review included an evaluation of the inspection notes, citations and orders, subsequent actions, and associated paperwork. To assist the review team in determining the areas of the mine inspected, the lead inspectors who conducted the last two regular inspections before the accident, using their inspection notes, marked the areas examined during their inspections on a mine map. The review team's findings regarding the five regular inspections follow.

1. ***Regular Inspection, June 2000 – September 2000***: This inspection was conducted from June 6, 2000, through September 11, 2000, and encompassed 56 inspection days[2]. During this inspection, District 11 personnel issued 101 citations[3] and one §104(d)(2) order.

   A review of the inspection notes for this regular inspection revealed that inspectors checked records of fire drills, searches for smoking articles, weekly examinations, and examinations of electrical equipment. However, on 21 occasions, there was no documentation to indicate that inspectors examined the preshift and on-shift records prior to going underground.

   The inspection notes did not indicate that the longwall permissibility inspection was conducted. During interviews, enforcement personnel stated that the longwall permissibility inspection was completed, but was not documented in the inspection notes.

2. ***Regular Inspection, September 2000 – December 2000:*** This inspection was conducted from September 18, 2000, through December 15, 2000, and encompassed 63 inspection days. This inspection included an Accident Prevention Spot Inspection conducted under the Winter Alert Campaign[4]. During this inspection, District 11 personnel issued 91 citations.

   A review of the inspection notes for this regular inspection revealed that inspectors checked records of weekly examinations and examinations of electrical equipment.

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[2] *Inspection days may reflect multiple inspectors present at the mine on the same day (for example, two inspectors present at the mine on the same day is equivalent to two inspection days).*

[3] *Unless otherwise noted, the term "citation" refers to a citation issued under Section 104(a) of the Mine Act.*

[4] *The Winter Alert Campaign emphasized increased vigilance underground from October through March, when the nation's most devastating mine disasters historically have occurred.*

There was no documentation to indicate records of fire drills or searches for smoking articles were examined. In addition, on 25 occasions, there was no documentation to indicate that inspectors examined the preshift and on-shift records prior to going underground.

A review of the inspection map, inspectors' notes, and interviews with the inspectors who conducted this inspection revealed that the return split from the mouth of F Longwall Panel to the rock tunnel outby 5-7 Shaft (a distance of approximately 3,000 feet) was not inspected.

3. ***Regular Inspection, December 2000 – March 2001:*** This inspection was conducted from December 15, 2000, through March 30, 2001, and encompassed 80 inspection days. This inspection also included an Accident Prevention Spot Inspection conducted under the Winter Alert Campaign. During this inspection, District 11 personnel issued 117 citations.

   A review of the inspection notes for this regular inspection revealed that inspectors checked records of fire drills, searches for smoking articles, weekly examinations, and examinations of electrical equipment. However, on 28 occasions, there was no documentation to indicate that inspectors examined the preshift and on-shift records prior to going underground.

4. ***Regular Inspection, March 2001 – June 2001:*** This inspection was conducted from March 30, 2001, through June 21, 2001, and encompassed 63 inspection days. During this inspection, District 11 personnel issued 60 citations, one §104(d)(1) citation, one §104(d)(1) order, and one §107(a) order.

   A review of the inspection notes for this regular inspection revealed that inspectors checked records of weekly examinations and examinations of electrical equipment. There was no documentation to indicate records of fire drills or searches for smoking articles were examined. In addition, on 32 occasions, there was no documentation to indicate that inspectors examined the preshift and on-shift records prior to going underground.

5. ***Regular Inspection, July 2001 – September 2001:*** This inspection was started on July 6, 2001, and had encompassed 41 inspection days at the time of the accident. During this inspection and prior to the accident, District 11 personnel issued one §103(k) order, 107 citations, and two §104(b) orders.

   Due to the accident on September 23, 2001, this inspection was interrupted prior to all underground areas being inspected. In an October 5, 2001, memorandum to his supervisor, the lead inspector documented four items that had not been inspected when the accident occurred: permissibility for the longwall; self-contained-self-rescuers (SCSRs); the degasification equipment; and cap lamps.

A review of the inspection notes for this regular inspection revealed that inspectors had checked records of weekly examinations. However, on eight occasions there was no documentation to indicate that inspectors examined the preshift and on-shift records prior to going underground.

Inspection notes for the five regular inspections were generally descriptive of violations and conditions observed. However, there was insufficient documentation in the inspection notes for all five regular inspections to indicate that all outby electrical installations had been inspected. District 11 personnel stated that outby electrical installations were examined as encountered during the inspections. Although electrical inspectors assisted with these inspections, the inspectors normally did not communicate with each other about which installations they had inspected.

During the five inspection quarters prior to the accident at the No. 5 Mine, District 11 inspectors conducted 103 other inspections and investigations, in addition to regular inspections and section 103(i) spot inspections. During the 103 other inspections and investigations, District 11 personnel issued 81 citations, one §104(d)(2) order, eight §103(k) orders, and one §107(a) order. Areas inspected during other inspection activities (e.g., respirable dust technical inspections and investigations and electrical spot inspections) were counted toward the completion of the regular inspections.

Section 103(i) spot inspections are discussed in the following section of this report.

A review of the citations and orders issued during the accident investigation, interviews with District 11 inspectors, and a review of inspection notes indicated that the inspectors did not recognize and cite several violations that were in existence during one or more inspections. These violations included the following:

1. Regulators were constructed of combustible material, a violation of 30 CFR 75.333(e)(1)(ii).

2. Bleeder evaluation points were not examined at the specific locations approved in the mine ventilation plan as required by 30 CFR 75.370(a)(1).

3. Shaft 5-9 was added to the mine ventilation system without prior approval by the District Manager as required by 30 CFR 75.370(d).

4. Locations of all permanent ventilation controls were not shown on mine maps required by 30 CFR 75.372 and 75.1202.

5. The combined coal dust, rock dust, and other dust in several areas of the mine did not contain the minimum required incombustible content specified in 30 CFR 75.403.

6. Deficiencies existed in the operator's records required for preshift, on-shift, and weekly examinations, searches for smoking articles, and fire drills.

7. Deficiencies existed in the mine electrical map required by 30 CFR 75.508.

These violations are discussed in detail in later sections of this report.

Conclusion: During the review period, District 11 inspectors conducted the required number of regular inspections at the No. 5 Mine. Inspection notes were descriptive of the conditions and violations observed.

The review team found the following weaknesses in the inspections of the No. 5 Mine:

1. District 11 inspectors did not recognize and cite several violations that existed when one or more of the inspections were conducted.

2. Inspection notes for the regular inspection conducted from June 6, 2000, to September 11, 2000, did not indicate that the longwall face equipment was inspected for permissibility.

3. During the regular inspection conducted from September 18, 2000, to December 15, 2000, District 11 inspectors did not inspect the return split from the mouth of F Longwall Panel to the rock tunnel outby Shaft 5-7, a distance of approximately 3,000 feet.

4. The inspection notes for the five regular inspections prior to the accident did not document that all outby electrical installations had been inspected.

5. On 114 occasions during the five regular inspections, there was no documentation in the inspection notes to indicate that inspectors examined the preshift and on-shift records prior to going underground.

6. During two regular inspections there was no documentation in the inspection notes to indicate that inspectors examined the record of fire drills or searches for smoking articles.

The deficiencies were caused by lapses in following established inspection procedures. District 11 supervisors and managers did not provide adequate oversight and guidance and their reviews of inspection reports did not identify and correct these deficiencies.

Corrective Action Taken: The Administrator has formed a committee to develop a peer review program on a national scale as well as within each district to identify inspection deficiencies, prevent their reoccurrence, and improve enforcement consistency.

Recommendation: The Administrator should evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve guidance to field personnel. The Administrator should also consider development of a resource package to reside on inspector laptop computers to include MSHA regulations, handbooks, procedures, and all MSHA forms.

Section 103(i) Spot Inspections

Requirement: Section 103(i) of the Mine Act requires that whenever the Secretary finds that a mine liberates in excess of 1,000,000 cubic feet of methane during a 24-hour period, she shall provide a minimum of one spot inspection by an authorized representative of all or part of such mine during every five working days at irregular intervals.

The *MSHA Program Policy Manual* states in pertinent part that a section 103(i) spot inspection: "…[s]hall not constitute a part of any other category of inspection, and the inspection is to be directed specifically to the problems, hazards, or conditions under which the mine was classified as a section 103(i) mine. However, this does not prevent another category of inspection or investigation from being conducted during the same visit to the mine."

MSHA Policy Memorandum No. 82-12 C, dated April 29, 1983, stated that five-day spot inspections are to be conducted once each week. This directive eliminated the need to track "working days" at coal mining operations to determine intervals for inspections, and permitted a section 103(i) spot inspection to be conducted any day during a calendar week.

CMS&H Memorandum No. HQ-01-017-S, issued on April 13, 2001, revised MSHA policy regarding section 103(i) spot inspections. This directive requires that the actual working schedule of the mine be considered when determining the required inspection frequency, recognizing that many mines operate seven days per week. The memorandum directs that mines working more than five days per week must receive appropriate spot inspections at intervals determined by the mine's actual working days.

Statement of Facts: A review of Agency MIS data indicated that the No. 5 Mine was placed on a section 103(i), five-day spot inspection schedule on April 1, 1980, because the mine liberated in excess of 1,000,000 cubic feet of methane in a 24-hour period. This five-day spot inspection schedule was in effect at the time of the accident.

The total methane exhausted daily from the mine through the mine fans varied due to mining cycles. Vacuum bottle samples and air quantity measurements taken by MSHA on July 12, 2001, and August 9, 2001, revealed the total methane liberation from the

mine exhaust fans was approximately 17.2 million cubic feet per day. Additional methane was removed through horizontal and vertical degasification systems.

The review team's analysis of MIS data indicated that District 11 enforcement personnel conducted 73 §103(i) spot inspections at the No. 5 Mine from June 6, 2000, through September 23, 2001. The average on-site time for the 73 inspections was 6.4 hours.

Between June 6, 2000, and April 27, 2001, (the date *CMS&H Memorandum No. HQ-01-017-S* was received in District 11), inspectors conducted 48 §103(i) spot inspections at the No. 5 Mine. Analysis of MIS data revealed that inspectors conducted these inspections at least once each calendar week during this period. Following receipt of the memorandum, inspectors conducted 25 §103(i) spot inspections at the No. 5 Mine.

A review of inspection reports indicated that District 11 personnel traveled to work areas, working sections, and outby areas of the No. 5 Mine during the Section 103(i) inspections. During these inspections, matters of safety and health were discussed with mine management and miners, air quality and quantity measured, and mine physical conditions observed. District 11 personnel issued 79 citations and three §107(a) imminent danger orders during the Section 103(i) spot inspections.

The review team's examination of inspection reports for the No. 5 Mine revealed that District 11 inspectors counted Section 103(i) activities toward the completion of six other inspections. In each case, the Section 103(i) inspection notes were duplicated and inserted into reports for other inspections being conducted on the same date and time. During interviews, some District 11 personnel were not aware that Section 103(i) inspection activities could not constitute a part of any other category of inspection.

Conclusion: During the review period, District 11 personnel conducted the required number of Section 103(i) spot inspections at the No. 5 Mine. However, these inspections were not always conducted in accordance with MSHA policy. District 11 personnel frequently conducted Section 103(i) spot inspections and other inspection activities during the same mine visit. However, on six occasions, these inspections constituted part of the other inspection activities. District 11 supervisors reviewed the inspection notes and did not identify and correct this deficiency.

Corrective Action Taken: The Administrator has issued a written directive concerning section 103(i) spot inspections. This memorandum directed that section 103(i) inspections shall not constitute a part of any other category of inspection. In addition, the memorandum directs that original inspection notes should be distinct and separate for each type of inspection and subsequently filed with the respective inspection report.

Recommendation: None.

Use of Sections 104(a), 104(b), 104(d), and 107(a)

Requirement: Section 104 of the Mine Act provides MSHA inspectors with a method of progressively stronger enforcement actions to obtain compliance with mandatory safety and health standards.

Section 104(a) requires an inspector to issue a citation if the inspector believes that an operator has violated the Mine Act, or any mandatory safety or health standard, rule, order, or regulation promulgated pursuant to the Mine Act. The inspector is also required to specify a reasonable time for the operator to abate the violation.

Section 104(b) provides that, if upon any follow-up inspection, an inspector finds that a cited violation has not been totally abated within the period of time as originally fixed therein or as subsequently extended, and that the period of time for the abatement should not be further extended, the inspector shall determine the extent of the area affected and shall issue a withdrawal order.

Section 104(d) creates a chain of increasingly severe sanctions that serve as an incentive for operator compliance. Under section 104(d)(1), if an inspector finds a violation of a mandatory health and safety standard that is significant and substantial (but is not an imminent danger) and is caused by the mine operator's unwarrantable failure, the inspector must issue a section 104(d)(1) citation. If, during the same inspection or any subsequent inspection within 90 days after issuance of the predicate section 104(d)(1) citation, the inspector finds another violation caused by unwarrantable failure to comply with such mandatory standard, the inspector must issue a section 104(d)(1) order. If, upon any subsequent inspection pursuant to the issuance of a section 104(d)(1) order, an inspector finds a violation caused by unwarrantable failure, the inspector must issue a section 104(d)(2) order.

Section 104(b) and 104(d) orders require the operator to cause all persons in the area affected by the violation, except those necessary to correct the condition, to be withdrawn from and prohibited from entering such area until the inspector determines that the violation has been abated.

Section 107(a) of the Mine Act provides that when an inspector finds an imminent danger in a mine, the inspector shall issue an order withdrawing persons from the area of the mine affected by the imminent danger. Section 107(a) also states that the order of withdrawal will remain in effect until the inspector determines "that such imminent danger and the conditions or practices which caused such imminent danger no longer exist." Section 3(j) of the Mine Act defines "imminent danger" as "the existence of any condition or practice in a coal or other mine which could reasonably be expected to cause death or serious physical harm before such condition or practice can be abated."

Statement of Facts: The internal review team evaluated 656 citations and orders issued at the No. 5 Mine from June 6, 2000, through September 20, 2001. Six hundred-forty of these citations and orders required evaluations for gravity and negligence[5]. The following sections address the manner in which District 11 enforcement personnel made these determinations, as well as timely abatement of violations, vacated citations and orders, and the application of section 107(a).

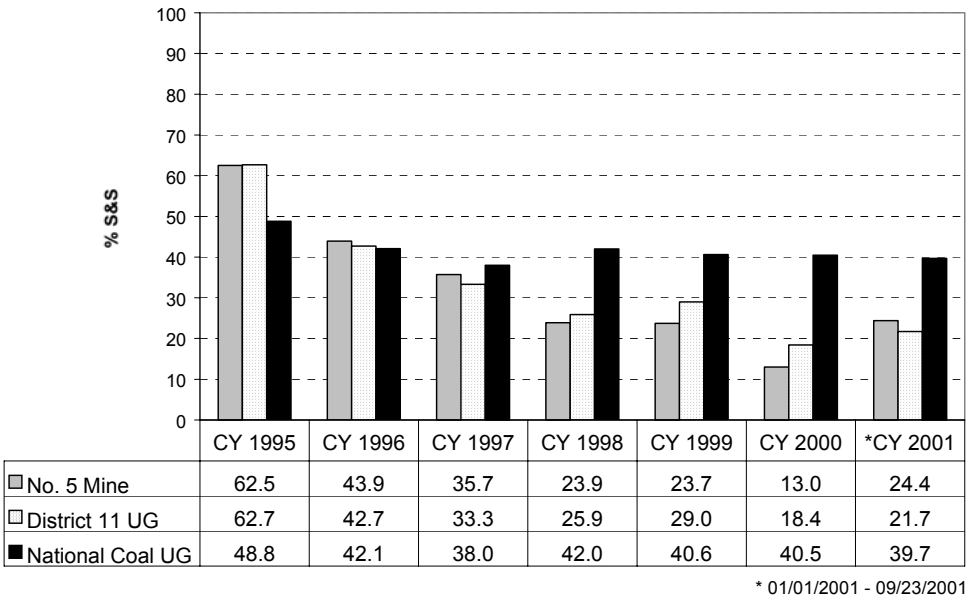
Gravity Determinations (S&S and Number of Persons Affected)

Gravity is defined in 30 CFR 100.3(e) as an evaluation of the seriousness of the violation as measured by the likelihood of the occurrence of the event against which a standard is directed, the severity of the illness or injury if the event occurred or were to occur, and the number of persons potentially affected.

Volume I of the *MSHA Program Policy Manual* contains guidelines for evaluating whether a violation is significant and substantial (S&S). In determining whether a violation could "significantly and substantially contribute to the cause and effect of a mine safety or health hazard," the inspector must first find that an injury or illness would be reasonably likely to occur if the violation were not corrected and, if the injury or illness were to occur, it would be reasonably serious. Additional guidance on S&S determinations is provided in Chapter 5 of the *CMS&H General Inspection Procedures Handbook*.

During the review period, District 11 personnel designated 117 (18.3 percent) citations and orders issued at the No. 5 Mine as S&S. The following graph compares the S&S rates for citations and orders issued at the No. 5 Mine with the S&S rates for all underground mines in District 11 and the nation from 1995 through 2001.

[5]*Section 103(k), 104(b), and 107(a) orders do not require evaluation for gravity or negligence.*



	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999	CY 2000	*CY 2001
No. 5 Mine	62.5	43.9	35.7	23.9	23.7	13.0	24.4
District 11 UG	62.7	42.7	33.3	25.9	29.0	18.4	21.7
National Coal UG	48.8	42.1	38.0	42.0	40.6	40.5	39.7

* 01/01/2001 - 09/23/2001

During the review period, District 11 enforcement personnel issued 24 citations for violations of 30 CFR 75.503 at the No. 5 Mine. This mandatory safety standard requires mine operators to maintain electric face equipment in permissible condition. District 11 personnel designated seven (29 percent) violations as S&S. Nine of the 17 violations that were designated as non-S&S involved openings in electric compartments of electric face equipment required to be maintained in permissible condition. Two of these violations are described below.

- On August 13, 2001, a citation (7677309) was issued stating: "The company No. 42 battery powered scoop located on the No. 4 Section was not being maintained in permissible condition. An opening greater than 0.005 inches was present in the main control breaker panel between the lid and box. This is a plane flange joint." The inspector evaluated this violation as non-S&S. The inspector's notes indicated that there was an accumulation of 1.7 percent methane in the No. 2 face and that corrective action was taken to reduce methane below 1.0 percent.

- On September 22, 2000, a citation (7674697) was issued stating: "The Company No. 37 Fletcher Roof Bolter located on No. 4 section, was not maintained in permissible condition, the cover over the main control panel had an opening in excess of .005." The inspector evaluated this violation as non-S&S. The inspector's notes indicated that there was an accumulation of 0.5 percent methane present in the Nos. 1, 2, and 4 faces and 0.3 percent methane in the No. 3 face.

During interviews, some District 11 enforcement personnel stated that they would not designate a violation of 75.503 as S&S if the equipment was not in the face area when they observed the violation. However, the Federal Mine Safety and Health Review

Commission (Commission)[6] ruled that a violation of 30 CFR 75.503 was S&S because a mine liberated substantial methane, even though the inspector did not actually observe the electric face equipment in the face area.

Some inspectors and supervisors stated that exposure to a hazard must currently exist in order to designate a violation as S&S. They did not consider future exposure to the hazard if normal mining operations continued as ruled by the Commission[7]. In addition, they stated that a permissibility violation would be designated as S&S only when methane was present at the time the violation was observed.

Previous inspection records showed that the No. 5 Mine liberated large quantities of methane in the face areas and several methane ignitions had occurred in the face areas at the No. 5 Mine. An MSHA investigation revealed that the possible cause for one such ignition was a permissibility violation on a continuous mining machine.

The Commission[8] ruled that some of the factors for evaluating the reasonable likelihood of a fire, ignition or explosion would include factors such as: the mine is on a section 103(i) spot inspection for methane liberation, the mine can liberate dangerous levels of methane in a relatively short period, has a history of past methane ignitions with excessive accumulations nearby, and sudden outbursts of methane have occurred recently.

During the review period, District 11 issued 67 §104(a) citations, one §104(d)(1) citation, and one §104(d)(2) order for accumulations of float coal dust in the No. 5 Mine. District 11 personnel designated 22 percent of the violations as S&S. In interviews, some District 11 inspectors indicated that an actual ignition source must be present to designate a float coal dust violation S&S. District 11 inspectors designated several violations cited for accumulations of float coal dust in belt entries as non-S&S, even though potential ignition sources were present.

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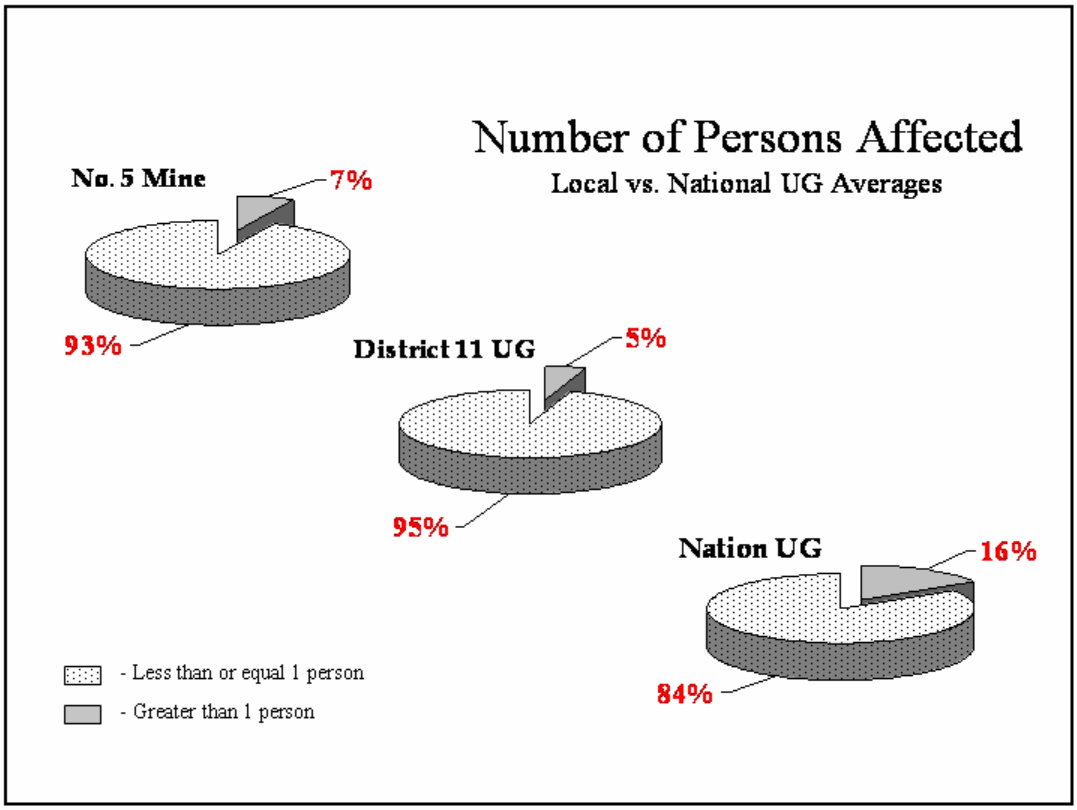
[6] *Green River Coal Co., Docket No. KENT 89-82, July 18, 1989, 11 FMSHRC 1313*
[7] *U.S. Steel Mining Co., Inc. Docket No. PENN 82-336, July 11, 1984, 6 FMSHRC 1573*
[8] *Youghiogheny & Ohio Coal Co., Docket No. LAKE 84-98, April 30, 1987, 9 FMSHRC 673*

A summary of float coal dust citations and orders for each inspection quarter reviewed follows.

Inspection Quarters	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	5th Quarter	Totals
Citations/Orders	11	11	14	9	24	**69**
S&S	0	2	6	4	3	**15**
Non S&S	11	9	8	5	21	**54**
High Negligence	1	0	0	1	0	**2**
Moderate Negligence	10	11	14	7	24	**66**
Low Negligence	0	0	0	1	0	**1**
One Person Affected	10	11	12	5	24	**62**
Area Affected (feet)	12,835	19,028	20,710	9,500	37,521	**99,594**

Of the 640 citations and orders requiring evaluations for gravity, 595 (93 percent) indicated one person affected. Additional data revealed that 95 percent of all citations and orders issued at District 11 underground mines during the review period indicated one person affected. The following is a comparison of determinations for the number persons affected.



A review of enforcement documents for the No. 5 Mine revealed several instances where enforcement personnel made questionable determinations of the number of persons affected. Two examples follow.

- On September 20, 2000, a citation (7674695) was issued for accumulations of float coal dust (black in color) deposited on top of rock dusted surfaces in the left return of a working section from the backdrop to the regulator, a distance of 7,000 feet. The number of persons affected was evaluated as one.

- On October 30, 2000, a citation (7675620) was issued for two personnel carriers in the same block light section that was used to control underground traffic and prevent accidents involving more than one unit of track-mounted equipment. Two buses carrying owl shift crews coming to the bottom were inadvertently operating in the same block. The number of persons affected was evaluated as one.

During interviews, some District 11 personnel stated that they would consider only persons who were present in or examining the immediate vicinity of the violation as potentially affected by the condition cited. Often, the only person considered affected by extensive float coal dust accumulations in a section air course would be the mine examiner. Some inspectors equated likelihood of injury to the number of miners exposed to a hazard. They also stated that permissibility violations were not usually evaluated as affecting other miners working on the section.

Negligence Determinations

Paragraph (d) of 30 CFR 100.3 defines negligence as committed or omitted conduct which falls below the standard of care established under the Mine Act to protect persons against the risks of harm. The standard of care established under the Mine Act is that the operator of a mine owes a high degree of care to the miners. A mine operator is required to be on the alert for conditions and hazards in the mine that affect the safety or health of the employees and to take the steps necessary to correct or prevent such conditions or practices. For purposes of assessing a penalty under this part, failure to do so is negligence on the part of the operator.

The negligence criterion gives appropriate consideration to the factors relating to an operator's failure to exercise a high degree of care to protect miners from safety or health hazards. When applying this criterion, MSHA considers actions taken by the operator to prevent or correct conditions or practices which caused or allowed the violation to exist. In determining the operator's diligence in protecting miners in any given hazard situation, due recognition is given to mitigating circumstances which explain the operator's conduct in minimizing or eliminating a hazardous condition. Mitigating circumstances may include, but are not limited to, actions which an operator has taken to prevent, correct, or limit exposure to mine hazards.

MSHA inspectors must evaluate the negligence of the mine operator using one of the following categories:

No Negligence – The operator exercised diligence and could not have known of the violative condition or practice.

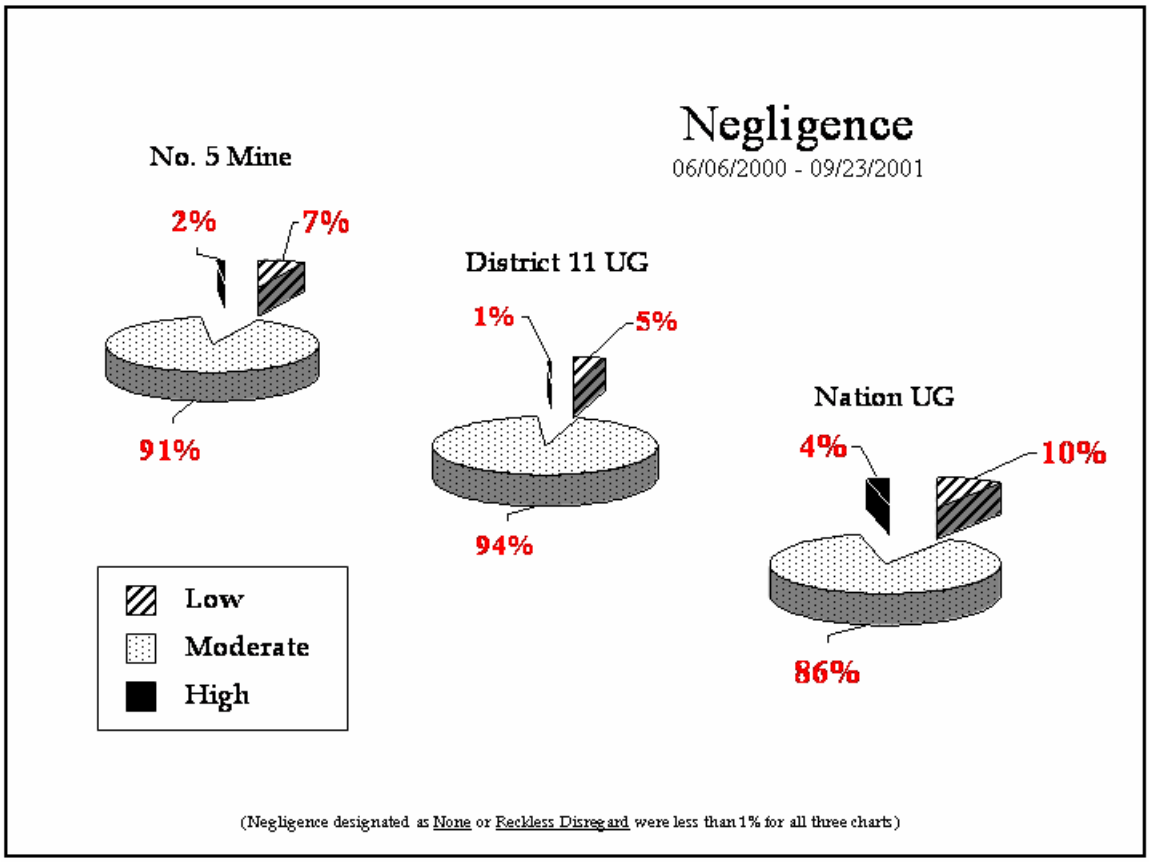
Low Negligence – The operator knew or should have known of the violative condition or practice, but there are considerable mitigating circumstances.

Moderate Negligence – The operator knew or should have known of the violative condition or practice, but there are mitigating circumstances.

High Negligence – The operator knew or should have known of the violative condition or practice, and there are no mitigating circumstances.

Reckless Disregard – The operator displayed conduct which exhibits the absence of the slightest degree of care.

The following chart shows a comparison of negligence determinations at the No. 5 Mine, District 11 underground mines, and underground mines nationwide during the review period.



During the review period, District 11 personnel issued 67 §104(a) citations, one §104(d)(1) citation, and one §104(d)(2) order for accumulations of float coal dust in the No. 5 Mine. The negligence evaluation for all 67 citations was moderate or low. On several occasions; however, mine examiners had previously recorded the accumulations in the record books as shown in the following examples.

- On July 9, 2001, a citation (7676285) was issued for accumulations of float coal dust in the left return entry of a working section. Inspection notes indicated that it could not be determined how long the condition existed. The area cited was recorded in the mine operator's weekly examination record on July 6, 2001, and no corrective action was noted.

- On July 10, 2001, a citation (7676288) was issued for accumulations of float coal dust in the return entry starting at SS 13172 and extending inby to the 1 Section backdrop curtain. The inspector's notes indicate that it could not be determined how long the condition existed. The area cited was recorded in the mine operator's weekly examination record on June 1, 8, 15, and 21, 2001.

- On September 4, 2001, a citation (7677337) was issued for accumulations of float coal dust in the secondary escapeway of Sub Main A for the Longwall Section. The inspector's notes stated that it could not be determined how long the condition existed. The area cited was recorded in the mine operator's weekly examination record on August 16, 23, and 30, 2001. The cited hazard also was reported in the examination records on September 6 and 20, 2001, after the termination due date.

- On September 17, 2001, a citation (7677222) was issued for accumulations of float coal dust in the Longwall Section alternate escapeway. The inspector's notes stated that it could not be determined how long the condition had existed. The hazard cited was recorded in the mine operator's weekly examination record on August 24, 2001, and September 7 and 14, 2001.

During ten inspection days, one inspector issued 21 moderate negligence citations for float coal dust covering a total of approximately 31,000 feet. The Commission[9] has recognized that past discussions with MSHA about an accumulation problem serve to put an operator on heightened scrutiny that it must increase its efforts to comply with the standard. The Commission[10] has also determined that a high number of past violations of 30 CFR 75.400 serve to put an operator on notice that it has a recurring safety problem in need of correction and the violation history may be relevant in determining the operator's degree of negligence. The Commission[11] has also stated that

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[9] *Enlow Fork Mining Co., Docket Nos. PENN 94-259, PENN 94-400, Jan.15, 1997*
[10] *Peabody Coal Company Docket No. LAKE 91-11, Aug. 6, 1992, 14 FMSHRC 1258*
[11] *Youghiogheny & Ohio Coal Co., Docket No. LAKE 86-56, Dec. 11, 1987, 9 FMSHRC 2007*

recent citations further serve to place an operator on notice of the need to increase its efforts to come into compliance.

Timely Abatement

Section 104(a) of the Mine Act requires the inspector to specify a reasonable time for the operator to abate a violation.

The *MSHA Program Policy Manual* states that the time for abatement should be determined, whenever practical, after a discussion with the mine operator or the operator's agent. The degree of danger to the miners is the first consideration in determining a reasonable time for abatement. Upon expiration of the time fixed for abatement, the inspector should review the circumstances, and if circumstances so justify, extend the abatement period. If no extension of time is justified, and the violation is unabated, the inspector shall issue a withdrawal order under §104(b). Upon abatement of the violation, the §104(b) withdrawal order will be terminated.

The *CMS&H General Inspection Procedures Handbook* states that the inspector should make every effort to re-inspect the area as soon as the time has expired.

The internal review team examined data for citations issued during the review period and terminated before the accident occurred on September 23, 2001. District 11 inspectors set the time for abatement at one day or less for 92 percent of the citations. However, District 11 enforcement personnel did not follow up on a significant number of citations on the termination due dates. Several examples follow.

- On November 20, 2000, a citation (7669758) was issued for a violation of 30 CFR 75.403 for less than 65 percent incombustible in the longwall alternate escapeway and termination was due the same day. The citation was terminated on December 5, 2000, due to the fact that the cited area had been mined through and was now part of the gob.

- On February 26, 2001, a citation (7676054) was issued for a violation of 30 CFR 75.1725(a) because a belt conveyor was not maintained in alignment and a broken roller was creating sparks. The citation was marked "reasonably likely" to cause "lost workdays or restricted duty" to one person. Float coal dust was also present and cited. The area was re-inspected three days after termination was due and the belt was observed operating out of alignment. The inspector terminated the initial citation and, one minute later, issued a second citation for a violation of 30 CFR 75.1725(a) for the alignment problem. The justification for terminating the initial citation was that the belt had been aligned and the inoperative rollers had been replaced or removed.

- On August 21, 2001, a citation (7677315) was issued for accumulations of float coal dust and due approximately 13 hours later. The citation was terminated on August 29, 2001, however, five minutes later a second citation (7677334) was issued for accumulations of float coal dust in the same area. This citation was due the same day but was not terminated until September 10, 2001.

Thirty-one citations were not terminated (outstanding) when the accident occurred. A summary of these citations showing days past the termination due date follows:

- One citation – two days
- Five citations - three days
- Ten citations - four days
- Four citations - five days
- Two citations - six days
- Six citations - eight days
- Two citations - nine days
- One citation - eighteen days

Twelve of the overdue citations involved violations of 30 CFR 75.400. Six of the citations were for violations of 30 CFR 75.333(h); another six were for violations of 30 CFR 75.1403.

During interviews with the internal review team, District 11 inspectors stated that their practice was to terminate S&S citations on the termination due dates. They also stated that in some instances the inspectors assigned to the No. 5 Mine were not aware of citations issued by District specialists. This lack of communication resulted in citations not being terminated in a timely manner. On several occasions, citations were issued to mine management not present at the time of issuance, which caused delays in the abatement of violations.

Vacated Citations and Orders

Volume I of the *MSHA Program Policy Manual* states that *MSHA Form 7000-3a* must be completed when vacating a citation or order. The form must state the reason for vacating the citation or order. If possible, the authorized representative who issued the citation or order should be the person to issue the subsequent corrective actions. Both the inspector and the supervisor must file, with the inspection report, notes that describe in detail the reasons and circumstances involved. Copies of the citation or order, along with the subsequent corrective action and notes, must be sent to the district manager.

Chapter 5 of the *CMS&H General Inspection Procedures Handbook*, states that when terminating or vacating a citation or order, the inspector should clearly and fully

describe the action taken to abate the violation or the reason for vacating a citation or order in the body of the subsequent action form.

Excluding Safety and Health (S&H) Conferences, seven citations and one order were vacated by the issuing inspectors during the review period. The reason for subsequent actions shown on MSHA Form 7000-3a typically stated that based upon additional facts and circumstances, the citation (or order) is hereby vacated. The supervisor did not submit notes with the inspection reports describing the reasons or circumstances that caused the enforcement action to be vacated. An example follows.

> On July 14, 2001, a citation (7674292) was issued for a violation of 30 CFR 75.333(h) because the permanent stopping at SS 12373 was not being properly maintained and was experiencing heavy leakage. The termination for this citation was due the same day. On July 21, 2001, the inspector re-examined the stopping and issued a §104(b) order (7674300) stating in part that, "There was no effort made to repair the openings around the mandoor at SS 12373." During interviews, the inspector stated specifically that it was obvious that no work had been done to repair the stopping.
>
> The operator presented a page copied from the operator's work records (second set of books) to the field office supervisor that purported to show that the stopping had been repaired, but the leaks reoccurred. Based on interviews, the inspector was then instructed by the supervisor to vacate the order and issue a second citation. Although the inspector did not agree with the decision, the §104(b) order was vacated and the original citation was terminated on July 25, 2001. Also on that date, the inspector issued another citation for a violation of 30 CFR 75.333(h). The justification for vacating the §104(b) order, as documented on MSHA Form 7000-3a, was "Based on additional information presented, this order is hereby being vacated." No notes were provided in the inspection report by the inspector or the supervisor for this action.

Section 107(a) Imminent Danger Orders

During the review period, District 11 enforcement personnel issued five section 107(a) imminent danger orders at the No. 5 Mine. The five orders are described below.

- On April 3, 2001, at 8:55 a.m. an inspector issued a section 107(a) imminent danger order (7675496) when he found methane concentrations greater than 1.5 percent (bottle sample analysis indicated 2.07 percent) in a roof cavity approximately 25 feet outby the No. 4 working face on 5 Section. The inspector issued a S&S citation (7675497) as a contributing factor to the order because the operator failed to direct a volume and velocity of air sufficient to dilute, render harmless, and remove the methane. At 9:45 a.m. the order and citation were terminated.

  On April 3, 2001, at 10:15 a.m. the same inspector issued another section 107(a) imminent danger order (7675498) when he found methane in concentrations greater

than 1.5 percent (bottle sample analysis indicated 96.4 percent) in a roof cavity in the No. 2 working place on 5 Section. The inspector issued a S&S citation (7675499) as a contributing factor to the order because the operator failed to direct a volume and velocity of air sufficient to dilute, render harmless, and remove the methane. At 12:15 p.m. the order and citation were terminated.

- On April 19, 2001, an inspector issued a section 107(a) imminent danger order (7675845) when he found methane in concentrations greater than 1.5 percent (bottle sample analysis indicated 2.45 percent) in a roof cavity in a crosscut on 5 Section. The inspector also issued a S&S citation (7675846) as a contributing factor to the order because the operator failed to direct a volume and velocity of air into the crosscut sufficient to dilute, render harmless, and remove the methane.

- On May 7, 2001, an inspector issued a section 107(a) imminent danger order (7675853) when he found methane in concentrations greater than 1.5 percent (bottle sample analysis indicated 6.3 percent) behind two cut-through brattices at the bottom of Shaft 5-9. The inspector also issued a section 104(d)(1) citation (7675854) as a contributing factor to the order because the operator failed to examine this area. The citation was modified on May 9, 2001, to a section 104(a) citation. A review of the inspection notes indicated that the inspector could have issued a section 104(d)(1) order because a section 104(d)(1) citation had been issued 7 days earlier.

- On September 17, 2001, an inspector issued a section 107(a) imminent danger order (7677220) when the inspector found methane in concentrations greater than 5 percent (bottle sample analysis indicated 98.6 percent) in a roof cavity along the alternate escapeway for the No. 1 Longwall Section. The affected area listed on the imminent danger order was limited to the immediate area of the excessive methane. The inspector issued a non-S&S citation for an extensive accumulation of float coal dust in the area containing excessive methane. However, the float coal dust was not cited as a contributing factor to the imminent danger condition. The inspector also issued a non-S&S citation for a violation of 30 CFR 75.333(h) because three permanent stoppings separating the alternate escapeway from the longwall belt entry had large openings. One of these openings (74 inches high by 110 inches wide) was located in the crosscut 100 feet outby the high spot where excessive methane was discovered. The damaged permanent stoppings were not cited as contributing factors to the imminent danger condition. The methane was removed and the imminent danger order terminated before the inspector left the section.

There were several instances documented in the inspection notes where inspectors detected methane concentrations near and exceeding the lower explosive limit and no enforcement actions were taken. For example, near the active longwall tailgate, inspection personnel detected 6.7 percent methane (no bottle sample collected) on May 31, 2001 and 4.5 percent methane (bottle sample analysis indicated 3.6 percent) on

August 27, 2001 with no enforcement actions taken related to the methane accumulations.

During interviews, District 11 supervisors stated that it was difficult to issue a section 107(a) imminent danger order for excessive methane in the active workings of a mine if the operator was taking corrective action. A review of enforcement documents for the No. 5 Mine did not disclose any instances where imminent danger orders were vacated.

Conclusion [Sections 104(a), 104(b), 104(d), and 107(a)]: The internal review team determined that the level of enforcement was not always appropriate at the No. 5 Mine. District 11 supervisors, managers, and the conference litigation representative did not recognize that MSHA policy and procedures were not consistently followed and did not institute appropriate corrective action. Inspector evaluations of gravity, negligence, and the type of enforcement action were not always consistent with the requirements of the Mine Act, 30 CFR, MSHA policy, Commission Decisions, and the conditions documented in citations, orders, and inspection notes.

- Gravity evaluations were not always consistent with MSHA policy and relevant Commission decisions. In particular, permissibility violations and violations for accumulations of float coal dust were not always properly evaluated for gravity. Inspectors did not always consider future exposure to the hazard if normal mining operations continued. Several supervisors and inspectors stated that methane must be present at the time a permissibility violation was observed to designate it as S&S. Likewise, they indicated that an actual ignition source must be observed to designate a float coal dust violation as S&S.

- District 11 enforcement personnel did not always appropriately determine the number of persons potentially affected by the condition cited. Often, the only person considered affected by extensive float coal dust accumulations in a section air course would be the mine examiner. Some inspectors equated likelihood of injury to the number of miners exposed to a hazard. Permissibility violations were not usually evaluated as affecting other miners working on the section.

- District 11 personnel did not always properly evaluate negligence. They did not use higher negligence evaluations to address repeated violations of the same standard. All 67 citations issued for float coal dust during the review period were evaluated as low or moderate negligence. Several violations that had been previously identified in the operator's records of examinations were not evaluated for higher negligence. In some cases, accumulations of float coal dust were repeatedly recorded in the operator's records of examinations and citations were issued with moderate negligence.

- Inspectors did not always return to the area cited to determine if the condition had been abated in a timely manner or if an extension of abatement time was justified.

While District 11 personnel set appropriate abatement times when issuing citations, they did not always return on the termination due dates. As a result, inspectors could not always determine if the cited condition was corrected but had reoccurred, or if the condition warranted the issuance of a section 104(b) order. Supervisors and inspectors did not have an effective method for tracking and directing the timely termination of violations at the No. 5 Mine.

- District 11 personnel did not always clearly describe the reasons for vacating citations and orders on MSHA Form 7000-3a. District 11 supervisors did not submit notes with the inspection report describing reasons that caused enforcement actions to be vacated.

- District 11 personnel appropriately issued five section 107(a) withdrawal orders when they observed imminent danger conditions at the No. 5 Mine. In one case, however, an inspector did not appropriately identify two additional violations as contributing factors to an imminent danger. In one other instance, an inspector inappropriately issued a section 104(d)(1) citation in conjunction with an imminent danger order. This error was recognized and corrected two days later. District 11 supervisors and inspectors confused the requirements for citing a violation of 30 CFR 75.323 (actions for excessive methane) with the issuance of an imminent danger order.

District 11 supervisors and managers should have recognized these deficiencies during their review of citations, orders, and inspection notes and taken corrective action.

During a 1999 headquarters accountability audit, several issues were identified. The 1999 audit team determined that the level of enforcement was inconsistent with information documented in the body of citations and inspection notes, and outstanding citations were not followed up in a timely manner. Following the 1999 audit, district management documented that corrective actions were taken on the issues. However, the internal review team determined that those corrective actions were ineffective and did not prevent the recurrence of the issues. District management did not provide proper oversight or implement an effective system to prevent the recurrence of the issues.

Corrective Action Taken: In June 2002, the Coal and Metal and Nonmetal Administrators issued a revised Citation and Order Writing Handbook which sets forth procedures to be followed in writing and issuing citations and orders. This handbook provides improved guidance and specific examples of proper enforcement evaluations.

On April 2, 2002 Headquarters implemented MSHA's Plan for Consistency in Inspections and Enforcement to encourage MSHA personnel to uniformly enforce standards on a nationwide basis. Under the plan, Headquarters, District Offices, and

Field Offices each have different responsibilities to try and ensure consistency in Agency inspections and enforcement activity.

In December 2002, Volume I of the Program Policy Manual was revised to provide more specific guidance regarding the determination of S&S violations.

The Administrator has formed a committee to develop a review program at both the district and national level. One goal of the program is to improve enforcement consistency nationwide. The committee was instructed to submit a timeline and action plan to the Administrator by February 14, 2003.

Recommendation: District 11 enforcement personnel should receive comprehensive training concerning application of the appropriate level of enforcement.

Alternative Case Resolution Initiative (ACRI)

Safety and Health Conferences / Settlement Motions

Requirement: 30 CFR 100.6 provides that all parties must be afforded an opportunity to review with MSHA each citation and order issued during an inspection.

The *MSHA Program Policy Manual* provides that the mine operator and the miner's representative can request a Safety and Health (S&H) Conference with MSHA district personnel to discuss facts surrounding a citation or order. The purpose of the conference is to provide an opportunity to submit additional information regarding a violation. Questions regarding the issuance of a citation or order, including the inspector's evaluation of negligence, gravity, and good faith may be discussed.

Chapter 2 of the MSHA *Alternative Case Resolution Procedures Handbook* provides that the Conference/Litigation Representative (CLR) shall announce his or her decision at the conclusion of the S&H conference unless further consultation with technical experts or additional information is needed. The CLR may affirm the inspector's findings, or if facts and circumstances explained during the conference warrant, find that the citation or order should be modified or vacated. The CLR should explain to the conference participants the reason(s) for his or her decision.

Chapter 2 also requires the CLR to document on the conference worksheet (*MSHA Form 7000-12*) or other appropriate format, the CLR's decision, including reasons for modifying or vacating the citations/orders.

CMS&H Memo No. HQ-96-134-P (SEC 104) concerning safety and health conference activities states that: "One of the more important functions of the ACRI Program is to ensure that a viable communication link is established between CLRs and field office supervisors and inspectors. The communication link will enable the CLR to provide

both the supervisor and the inspector the reason(s) that citations/orders were modified during S&H conferences. The reason(s) should be fully explained by the CLR to the inspector and supervisor and the CLR should point out exactly what kind of information or documentation was lacking in the body of the citation. Merely contacting the supervisor and/or the inspector and telling them that the citation was modified because it did not meet criteria does not provide the kind of substantive feedback an inspector can use when he or she is citing a similar violation during a subsequent inspection."

The memorandum also states that preparation for S&H conferences is a very integral part of a CLRs responsibility within the ACRI program. There should be sufficient communication between the CLR and the issuing inspector to clear up any ambiguous statements or include additional information, which could strengthen determinations of gravity and negligence made in the citations or orders. The CLR should ensure that the inspector is involved, to the degree necessary, in the pre-conference preparation.

Absent some additional information provided by the operator during the S&H conference, or a determination made by the CLR that an enforcement action taken by an inspector is not in accordance with MSHA policies and procedures, a CLR should not substitute his or her own judgment for that of the inspector. The memorandum also directs that the CLR should review the information provided to inspectors and supervisors resulting from S&H conferences to ensure that they receive a satisfactory explanation for their actions.

Chapter 4 of the *Alternative Case Resolution Procedures Handbook* provides that settlement motions may be requested in cases where there has been a prior safety and health conference, as well as in cases where there has been no prior conference. The CLR must review any prior conference file documents to determine if subsequent MSHA policies, regulations, Administrative Law Judge (ALJ), Commission, or Appellate Court decisions could affect the results of the S&H conference. The CLR should also determine from field personnel and the operator if any new facts have been uncovered. If either is true, a new evaluation of the citation/order should be performed to determine whether any aspect of the citation/order should be modified.

If a S&H conference has not been conducted, the CLR should prepare for settlement negotiations by obtaining the appropriate information. Copies of the citations and orders, the inspector's notes, and any approved plan should be obtained from the appropriate office.

After initially reviewing the information obtained, the CLR should discuss the conditions and circumstances surrounding the citations/orders with the inspector. Based on this discussion, the CLR should review recent ALJ, Commission, Appellate Court decisions, the Program Policy Manual, and inspection procedure handbooks.

Statement of Facts: The internal review team evaluated No. 5 Mine S&H conferences conducted by from January 1999 through September 2001. The review indicated that all parties were afforded an opportunity to discuss citations and orders issued during any inspection activity. Further, the review showed that the District Manager received results of the S&H conferences.

The internal review team reviewed 47 conferences covering 87 citations and orders issued at the No. 5 Mine. The CLR's decisions were as follows.

Number Violations Conferenced	Conference Results
37	Sustained
18	Vacated (One was later reversed by the CLR and one was overruled by the Assistant District Manager.)
18	Withdrawn (Some were due to modification or vacation prior to conference.)
7	Modified to non-S&S
3	Modified from 104(d) to 104(a)
2	Modified to reduce the number of persons affected
2	Modified the negligence from moderate to low

If the CLR made a decision to modify or vacate a citation or order, he would inform the issuing inspector who would be required to modify or vacate the citation or order. The CLR used a conference worksheet for documentation purposes. However, the documentation did not always provide reasons for modifying or vacating the citation or order. A general statement was often used such as, "Based upon further review of the facts and circumstances surrounding this issuance, the following modification will be made." Several examples follow.

- On May 3, 1999 an S&S citation (4761788) was issued for a violation of 30 CFR 75.323 because methane accumulations in excess of 1.0 percent were detected on 1 Section. The inspector measured 1.8 percent methane in the No. 1 face, 2.0 percent methane in the No. 2 face with 10,050 cfm behind the line curtain, and 1.5 percent methane in the No. 3 face. In addition, the notes indicate that the section return contained from 1.0 to 1.5 percent methane, and that coal production continued for 30 minutes. The inspector also issued an S&S citation (4761789) for a violation of 30 CFR 75.330(c) because the face ventilation devices on 1 Section were not being maintained. Holes and rips were observed in the curtains preventing adequate ventilation from reaching the working places. The citation was terminated when the holes and rips in the curtain were repaired.

On June 17, 1999, a S&H conference was held. The operator withdrew their contest of citation number 4761788, but contested the S&S determination for citation number 4761789, stating that even though there was greater than 1.0 percent methane, the required quantity of air was present at the inby end of the line curtain. The CLR stated in the notes that the regulation requires that the line curtain shall be maintained and not be damaged to the extent that ventilation of the working face is inadequate. The CLR determined that the face had adequate ventilation and the citation did not constitute a violation of 30 CFR 75.330(c). The conference worksheet stated: "Based upon review of the facts and circumstances surrounding this issuance it has been determined that a violation of 30 CFR 75.330(c) did not occur. Vacate as issued in error."

- On April 26, 2000, an S&S citation (7668997) was issued for an inaccurate mine map because the continuous mining machine had inadvertently cut into a vertical degas well. The mine map erroneously indicated that the well was located 39 feet south of the actual underground location. The inspector's notes indicated 1 to 5 percent methane at the bottom of the hole. On May 24, 2000, the citation was conferenced. The CLR's notes state that: "The citation is technical in nature. The gas well was shown on the map, however, 39 feet of deviation is not unreasonable. MSHA cannot uphold the reasonably likelihood. Modify to unlikely, non-S&S."

  The conference worksheet stated that "After further review of the facts and circumstances surrounding the violation, a reasonably likely evaluation cannot be upheld. Modify to unlikely, non-S&S. The modification subsequently issued by the inspector stated that after further review, it was determined that this citation is non-S&S, and unlikely that an accident would occur."

The internal review team also determined that several citations or orders were modified two to three weeks after issuance without any justification given for the modification. Some of the modified citations or orders had been recommended for special assessment by the issuing inspector with the concurrence of the field office supervisor. Interviews revealed that in some instances where citations or orders had been scheduled for a S&H conference, the CLR or Assistant District Manager recommended that modifications be made to the citation or order prior to the conference.

- On April 30, 2001, an inspector issued a section 104(d)(1) citation (7676308) for hazardous conditions present in the 1 East belt entry including 3,800 feet of accumulations of coal dust and float coal dust, bottom rollers turning in packed accumulations, and stuck rollers. The inspector stated that the operator showed a high degree of negligence in this violation. In addition, a section 104(a) citation (7676309) with high negligence was issued for an inadequate on-shift examination of this belt entry. This citation stated that no hazardous conditions were recorded in the examination records for four shifts.

The operator requested a conference for the on-shift citation (7676309) on May 9, 2001. On May 23, 2001 and prior to the conference, the inspector modified the on-shift citation to read: "This citation is modified from high negligence to moderate negligence. This change better reflects the negligence exhibited by the operator in this citation." On June 5, 2001, a S&H conference was conducted. On June 12, 2001, the on-shift citation was modified again to reduce the number of persons affected from five to two. No explanation was given by the CLR for this modification.

- On May 8, 2001, a non-S&S citation (7676311) was issued because no dates, times, and initials were present in three roof cavities in the 5 Section track entry to certify that a preshift examination of the cavities had been conducted. Ventilation material was provided for the cavities, and the inspector detected 0.3 to 0.4 percent methane at these locations. The inspection notes state: "management has been told that these areas must be examined and certified by the examiners. This condition present for 2-3 weeks." The citation was evaluated as high negligence. A conference for this citation was requested on May 9, 2001. On May 23, 2001, the citation was modified to read: "This citation is modified from high negligence to moderate negligence. This change better reflects the negligence exhibited by the operator in this citation." The operator subsequently withdrew their request for a conference regarding this citation.

In such instances, the field office supervisor would require the issuing inspector to modify or vacate the citation or order prior to a conference, at the recommendation of the CLR or Assistant District Manager. As a result, the inspectors were not always included as part of the communication link and, in many instances, were not provided reasons for decisions made to modify or vacate citations or orders.

Enforcement personnel stated they were influenced in their future evaluation of type of action, gravity, and negligence as a result of decisions made by the CLR during S&H conferences and settlement motions. Often, the inspectors and their supervisors did not receive a full explanation of the actions taken by the CLR, and did not receive adequate guidance as a result of ineffective communication.

The internal review team also examined 92 settlement motions from January 1999 through September 2001, covering 452 citations and orders issued at the No. 5 Mine. Modifications were made to 149 citations and orders, resulting in a reduction in the original civil penalty assessments. Inspectors received copies of the subsequent actions, signed by the CLR that modified or vacated citations or orders resulting from the settlement motions. Frequently, the inspectors were not consulted prior to modifying or vacating enforcement actions.

Interviews revealed that the CLR often worked with a great deal of autonomy in resolving assigned cases. The Birmingham Sub-Regional Solicitor's Office relied heavily upon information provided by the CLR regarding modifications that could be

made to citations or orders in which a Notice of Contest had been filed. The office usually discussed cases with the CLR rather than the issuing inspector, and settlements were negotiated based upon information or recommendations provided by the CLR.

The information reviewed indicated that the operator often bypassed the S&H conference process and instead filed a Notice of Contest. In many cases, this resulted in the S&S evaluation or the number of persons affected being changed in order to reduce the civil penalty. Since the formation of District 11, no citation or order issued at the No. 5 Mine was litigated before an ALJ. All contested cases were resolved by settlements, which were subsequently approved by an ALJ.

The former Birmingham Solicitor's Office attorney provided training to District 11 management and the CLR on interpretation of Commission case law, and enforcement issues such as gravity, S&S, and unwarrantable failure determinations.

Conclusion: District 11 management did not provide effective oversight of the ACRI program. District 11 management reviewed the actions of the CLR, but did not ensure that the CLR's decisions were in accordance with Agency policy and guidelines. Decisions rendered by the CLR and reviewed by management had a detrimental effect on the level of enforcement in District 11. The CLR did not always follow MSHA procedures when citations and orders were modified or vacated as a result of S&H conferences. The inspector was not always contacted to clear up ambiguous statements or to obtain additional information that may have strengthened the citation or order. Following S&H conferences in which the CLR determined that a modification was necessary, the issuing inspector was required to modify the citation or order without the benefit of a full explanation from the CLR. The CLR merely informed the supervisor or the inspector that the citation did not meet criteria. Enforcement personnel were influenced in their future evaluation of type of action, gravity, and negligence as a result of decisions made by the CLR during S&H conferences.

In addition, several citations were modified prior to the date of a scheduled conference. The inspector signed the modifications, but did not give specific reasons for the modifications. In such instances, the field office supervisor would require the issuing inspector to modify or vacate the citation or order at the request of the CLR or Assistant District Manager without input from the inspector.

The District 11 CLR did not always discuss the conditions and circumstances surrounding the citations or orders with inspectors prior to settlement agreements being submitted to the Birmingham Solicitor's Office or ALJ. However, inspectors were made aware of modifications made following settlement motions. This information may have affected future enforcement actions when similar violations were encountered during subsequent inspections.

Corrective Action Taken: A revised SOP, dated September 28, 2002, has been implemented by District 11 requiring the CLR to provide supervisors and inspectors with conference results, including the positions of the operator, miner's representative, and the conference officer. The conference officer's decision will include exact reasons for any subsequent actions. The inspection supervisor will monitor the issuance and processing of the subsequent actions with a tracking sheet developed to monitor timeliness. The supervisor will review the subsequent actions prior to issuance.

The SOP has provisions for resolving any disagreement with the CLR's decision by the inspector or supervisor. The Assistant District Manager will review and, if necessary, consult with the District Manager to resolve the disagreement.

Recommendation: The District Manager should follow-up to ensure that the requirements of *CMS&H Memo No. HQ-96-134-P* and the *ACRI Handbook* are met. Inspectors and supervisors should receive adequate justification for all modifications and vacates resulting from S&H conferences, and the CLR should discuss the conditions and circumstances surrounding the citations or orders with inspectors prior to settlement agreements being submitted to the Regional Solicitor Office or ALJ.

National Oversight of the ACRI Program

Requirement: The October 4, 1994, *Alternative Case Resolution Initiative Memorandum of Understanding (MOU)* between the Solicitor and the Assistant Secretary for MSHA requires that both provide guidance and oversight of the ACRI program.

Statement of Facts: From its inception in 1994, oversight responsibility for the ACRI program was coordinated by CMS&H. This responsibility was specifically assigned to the Chief of Technical Compliance and Investigation Division in 2000. Oversight for the ACRI program at the national level was provided in the form of maintaining a database for all data related to CLR activities, including but not limited to: the number of safety and health conferences held by each CLR; the number of citations or orders upheld as written, modified, or vacated; and the number of cases contested or settled.

Training programs for both new and existing CLR's were coordinated by CMS&H headquarters and conducted in cooperation with the Office of the Solicitor. Initial training for the District 11 CLR was provided in 1998, over a period of 4 ½ weeks at the National Mine Health and Safety Academy in Beckley, West Virginia. MSHA personnel and representatives of the Solicitor's Office conducted this training as a cooperative effort. Courses offered as part of this training covered topics ranging from trial preparation to legal ethics. As a follow-up to the initial CLR training, refresher training was provided in September 2000. The refresher training included lectures on legal writing, developing and honing interviewing skills, and an update on Commission decisions.

During an interview, the Chief of Technical Compliance and Investigation Division stated that the ACRI program has reduced the number of cases litigated before ALJs by approximately 35 percent. The Chief also stated that the individual district managers provide oversight of the decisions made by CLRs when they approve settlement agreements.

Conclusion: CMS&H headquarters did not provide sufficient oversight to ensure that actions of the District 11 CLR were consistent with ACRI guidelines and Commission and Appellate Court decisions.

Corrective Action Taken: In September 2001, the Associate Solicitor for Mine Safety and Health appointed an attorney whose primary responsibility is to provide oversight assistance to MSHA for the ACRI program.

In December 2002, the Administrator appointed a Special Assistant who reports directly to the Administrator and will be directly responsible for monitoring the overall function of the ACRI program. Major responsibilities include regular interaction with each coal district to gain consistency in the interpretation and utilization of the ACRI program. Regularly scheduled meetings will be conducted with CLRs and attorneys from respective regional offices. The meetings will facilitate exchange of information focusing on recent Commission decisions, modifications to citations and orders, and how the CLR can best use the ACRI program to provide guidance concerning the appropriate level of enforcement.

Recommendation: None.

Unwarrantable Failure Tracking System

Requirement: Under section 104(d)(1) of the Mine Act, if an inspector finds that there has been a violation of any mandatory health or safety standard, and if he or she also finds that, while the conditions created by such violation do not cause imminent danger, such violation is of such nature as could significantly and substantially contribute to the cause and effect of a mine safety or health hazard, and if he or she finds such violation to be caused by an unwarrantable failure of such operator to comply with such mandatory health or safety standards, he or she shall include such finding in any citation given to the operator under the Mine Act.

If, during the same inspection or any subsequent inspection of such mine within 90 days after the issuance of such citation, an authorized representative of the Secretary finds another violation of any mandatory health or safety standard and finds such violation to be also caused by an unwarrantable failure of such operator to so comply, he or she shall issue an order requiring the operator to cause all persons in the area

affected by such violation, except those persons referred to in section 104(c) to be withdrawn from, and to be prohibited from entering, such area until an authorized representative of the Secretary determines that such violation has been abated.

Under section 104(d)(2) of the Mine Act, if a withdrawal order with respect to any area in a mine has been issued pursuant to section 104(d)(1), a withdrawal order shall promptly be issued by an inspector who finds upon any subsequent inspection the existence in such mine of violations similar to those that resulted in the issuance of the withdrawal order under section 104(d)(1) until such time as an inspection of such mine discloses no similar violations. Following an inspection of such mine, which discloses no similar violations, the provisions of section 104(d)(1) shall again be applicable to that mine.

Volume I of the *MSHA Program Policy Manual* states that section 104(d)(2) of the Mine Act requires that an inspection with no violations due to an unwarrantable failure (clean inspection) be conducted before the section 104(d)(2) order sequence is terminated. This clean inspection may be accomplished within the framework of a regular inspection of the mine in its entirety, or within the framework of a series of spot inspections covering the entire mine. MSHA, rather than the operator, carries the burden of showing that no intervening clean inspection has occurred when a section 104(d)(2) order is issued.

Chapter 5 of the *CMS&H General Inspection Procedures Handbook* provides guidance for the unwarrantable violation sequence and the tracking system to be used by MSHA inspectors to determine when a clean inspection has been completed. This chapter requires that all areas of the mine subject to inspection during regular inspections be identified. This chapter also requires that specific areas of the mine that were examined during regular inspections, as well as other type inspections, be counted toward the completion of a clean inspection.

Statement of Facts: A §104(d)(1) citation was issued at the No. 5 Mine on April 30, 2001. A §104(d)(1) order was issued on May 9, 2001, requiring the initiation of the tracking system for a clean inspection. However, this system was not implemented in the Hueytown field office until July 6, 2001, (58 days after the issuance of the §104(d)(1) order).

Field office records indicated that a clean inspection was completed in September 2001. However, upon reviewing the inspection records, the internal review team determined that a clean inspection of the mine had been completed on August 22, 2001. A review of the §104(d) tracking sheet for the No. 5 Mine revealed that the only entries on the log corresponded to regular inspection activities. During interviews, inspectors confirmed that only regular inspection activities were considered in the tracking system. All other inspection activities were not applied toward a clean inspection.

A review of the inspection notes during this period revealed that District 11 personnel were not always aware of the correct §104(d) status of the No. 5 Mine. On April 30, 2001 a §104(d)(1) citation was issued. A second §104(d)(1) citation was erroneously issued on May 7, 2001. On several occasions, inspectors recorded the incorrect unwarrantable status in their inspection notes.

Conclusion: District 11 enforcement personnel did not use an effective tracking system to determine if a clean inspection of the No. 5 Mine had not been conducted following the issuance of a §104(d)(1) order. Inspection personnel did not begin the required tracking system until 58 days had elapsed since the issuance of this order. In addition, not all inspection activities were counted toward the completion of a clean inspection as required by MSHA procedures.

Due to the lack of an adequate tracking system, several inspectors were not aware of the correct unwarrantable status of the No. 5 Mine at the time of their inspections. On at least one occasion, lack of awareness of the correct unwarrantable status of the No. 5 Mine resulted in the issuance of a §104(d)(1) citation, when a §104(d)(1) order was appropriate.

Recommendation: District 11 should develop and maintain an effective tracking system for the unwarrantable sequence. This tracking system should be routinely evaluated through quarterly peer reviews.

The Administrator should evaluate the feasibility of including the updated unwarrantable status of each mine into resource package for laptop computers used by inspection personnel.

Work Order System at the No. 5 Mine

The accident investigation team examined the management structure at the No. 5 Mine. The safety department at the No. 5 Mine consisted of a salaried supervisor and four hourly miners who traveled with District 11 inspectors and performed independent inspection-type activities in surface and underground areas. Deficiencies identified during these independent inspection-type activities were documented in written work orders. These work orders were forwarded to the safety department supervisor and were entered into a computerized database system for action by the appropriate area manager. Once corrective action was completed, a notation was made on the work order and the computer database was updated. The majority of work orders involved minor maintenance-related issues. Comparatively few safety issues, such as accumulations of coal dust, float coal dust, and excessive methane, were identified under this system.

During interviews with the internal review team, MSHA inspectors were questioned about work orders at the No. 5 Mine. Several allegations had surfaced concerning the possibility that inspectors may have condoned a system of work orders to be used for correction of hazardous conditions instead of issuing citations and orders. Inspectors said that they were familiar with the work order system at the mine. However, they stated that they would not have accepted a work order to correct a hazardous condition in lieu of issuing a citation or order.

Inspection Activities Prior to the Accident

In the seven calendar days prior to the accident, MSHA inspectors conducted inspection or investigation activities at the No. 5 Mine on September 16, 17, 18, 19 and 20, 2001. A summary of these inspection activities follows.

September 16-17, 2001 (Midnight Shift)

A Section 103(i) spot inspection was started late in the evening of September 16, 2001, and continued through the early morning of September 17, 2001. Two citations were issued for violations on mobile equipment (both citations were terminated prior to the accident). Later in the shift, the inspector measured 453 feet per minute (fpm) and 335 fpm at mid-face and at the tailgate end of the longwall face, respectively. A maximum of 0.5 percent methane was recorded during the inspection and no imminent dangers were observed. The approved ventilation plan required a minimum air velocity of 600 fpm to be maintained along the face. The inspection notes indicated that the condition was not cited because the operator had already shut the longwall down. The inspector left the section without determining the cause of the problem or that corrective action had been taken.

No hazards or corrective actions were recorded during the subsequent preshift examination, conducted between 4:00 a.m. and 5:00 a.m. Airflow measurements were reported as 58,520 cubic feet per minute (cfm), 55,740 cfm, and 65,000 cfm at the headgate, mid-face, and tailgate, respectively. Although quantities were shown, airflow velocities were not recorded for these locations as required by 30 CFR 75.360(c)(2).

September 17, 2001 (Day Shift)

During day shift, another inspector traveled to the longwall section and cited a violation of 30 CFR 75.370(a)(1) because coal was being mined with less than 55,000 cfm of airflow at the mid-face (40,950 cfm @ 364 fpm) and at the tailgate (36,650 cfm @ 495 fpm). The inspection notes stated that management should have known of this condition, however, the section foreman indicated he was not aware of this condition.

Also during this shift, the same inspector issued a §107(a) imminent danger order for an accumulation of more than five percent methane in a high spot in the alternate escapeway, outby the longwall face. The area containing the methane accumulation was also cited for an extensive accumulation of float coal dust. However, the float coal dust was not cited as a contributing factor to the imminent danger condition. The affected area listed on the imminent danger order was limited to the longwall alternate escapeway, 100 feet inby SS 13164. The float coal dust hazard was reported in the operator's records of weekly examinations on August 23, September 7, and September 14, with no corrective action shown. A concentration of 1.0 percent methane in the alternate escapeway was reported in the operator's records of examination on September 7, with no corrective action shown. A concentration of 0.9 percent was reported the following week.

Three permanent stoppings separating the alternate escapeway from the longwall belt entry were also cited for violations of 30 CFR 75.333(h) due to large openings. One of these openings (74 inches high by 110 inches wide) was located in the crosscut 100 feet outby the high spot where the methane accumulation was discovered. A second opening (68 inches high by 39 inches wide) was reported in the operator's record of weekly examinations on September 14, with no corrective action shown.

Additional citations were issued in the area for violations of 30 CFR 75.333(c)(2) and 75.380(d)(4)(ii). All of the citations were issued with moderate negligence, non-S&S designations, and one person affected. In each case, the inspection notes stated that it could not be determined how long this condition had existed. The methane was removed and the imminent danger order terminated prior to the inspector leaving the section. However, the citations for violations of 30 CFR 75.370(a)(1) and 30 CFR 75.400 remained unabated at the end of the shift and neither had been terminated at the time of the accident. Corrective action to terminate the 30 CFR 75.370(a)(1) citation was due at 3:00 p.m., approximately 2 ½ hours from the time of issuance. The operator's records of examination indicated that the face ventilation problem continued through the next shift and that a ventilation change on the afternoon shift increased airflow on the longwall face to quantities above the minimum requirements by 11:00 p.m. However, methane on the longwall face was reported each day from September 18-21. Corrective action to terminate the 30 CFR 75.400 citation was due 7:00 a.m. the next morning, but was not reported in the operator's records of examination until September 21.

September 18, 2001

On September 18, 2001, a district supervisor traveled with an inspector to 6 Section during a section 103(i) spot inspection. This section was in close proximity to Shaft 5-9, where air was entering the main intake air courses. The inspection notes indicated that air and methane measurements were made in all working places. The maximum methane concentration detected was 0.5 percent in the left return, where 83,072 cfm of airflow was measured. The inspection notes also stated that ventilation controls were in

place, air was moving in its proper direction and rock dusting was "fair." The operator's records of weekly examinations for hazardous conditions reported float dust, excess water, and a damaged stopping in the 6 Section right return on September 17. No corrective actions were recorded for these conditions. A previous weekly examination of the 6 Section air courses had not been recorded since September 3. The inspection notes indicated that the preshift and on-shift records were reviewed, but that the weekly examination records were not. No hazards were recorded in the preshift and on-shift records. The section was idle at the time of inspection and no citations or orders were issued.

Also on this date, another inspector was continuing the regular inspection in outby areas of the mine, including haulage equipment, the 2-East belt entry, and the 3-East intake entry. The inspection notes indicated that the mine map and the preshift/on-shift records of belt examinations were checked prior to going underground.

One citation was issued for a violation of 30 CFR 75.1403 and two for violations of 30 CFR 75.1405 for inadequately maintained couplers and sanding devices, respectively, on track haulage equipment. All three violations were terminated prior to the accident.

In the 3-East intake entry, a citation was issued for a violation of 30 CFR 75.400 for an accumulation of float coal dust over a distance of 1,000 feet. The inspection notes indicated that the citation was non-S&S because no ignition source was present in the entry, which was parallel to the 3-East belt. The termination due date was set for the following day, but the citation was still outstanding at the time of the accident.

Between 9:15 a.m. and 10:10 a.m., four citations were issued for violations in the 2-East belt entry, as detailed below.

- The belt conveyor was not being maintained in safe operating condition because it was out of alignment where the No. 1 Longwall belt discharges onto the 2-East belt. The belt was running against the metal conveyor structure, which was hot to the touch. Smoke was also observed in the belt entry at this location. The condition was cited for a violation of 30 CFR 75.1725(a) and the belt was taken out of service immediately. The citation was designated as S&S and the time for abatement was set for 1:00 p.m. later that day.

- The belt was also running on and in loose, dry coal accumulated for a distance of 12 feet, measuring 32 inches high by 5 feet wide at the belt wiper. Float coal dust had accumulated in the belt entry and adjoining crosscuts at several locations for a total distance of more than 2,600 feet in length. An S&S citation was issued for a violation of 30 CFR 75.400 and the time for abatement was set for 7:00 a.m. the following morning.

- The mine roof was not adequately supported over the 2-East belt travelway, near the tailpiece, where distances from the rib to the nearest permanent roof supports measured from 5'-10" to 6'-5" over a distance of 20 feet. Broken and loose ribs were also observed in this area. An S&S citation was issued for a violation of 30 CFR 75.202(a) and the time for abatement was set for 3:00 p.m. later that day.

- A non-S&S citation was issued for a violation of 30 CFR 75.333(h) because openings, measuring up to 4 inches wide by 33 inches long, were found in several overcasts, one of which was crushing out. The time for abatement was set for 11:00 p.m. that evening.

The inspection notes indicated that the length of time each of the violations in the 2-East belt entry existed was undetermined. Each citation was issued with moderate negligence. The operator's records of preshift and on-shift examinations of belts, conducted between 4:00 a.m. and 7:00 a.m. on September 18, 2001, indicated that no hazardous conditions were observed in the areas cited. However, concerns regarding one of the cited overcasts and accumulations of loose coal and dust along the 2-East belt were listed September 17, 2001, in a second set of books maintained by the operator. None of the citations issued in the 2-East belt entry were terminated prior to the accident.

September 19, 2001

On September 19, 2001, a methane feeder was ignited by sparks generated while installing a roof bolt in the No. 2 entry of 6 Section. An inspector issued a section 103(k) order and conducted an investigation of the ignition on the same day. During this investigation, an inspector detected 1.2 and 1.8 percent methane in the No. 2 and No. 4 entry working places, respectively. The inspector measured 28,682 cfm behind the line curtain in the No. 2 entry. One non-contributory permissibility violation was cited on the roof-bolting machine. The violation was designated as S&S, with moderate negligence and one person affected. The inspector terminated the citation and the §103(k) order prior to leaving the section. Although the operator took corrective actions for methane in the No. 4 entry, the methane and corrective actions were not reported in the operator's records of required examinations.

Two inspectors were at the mine on this day and issued 12 other citations for violations of safety standards pertaining to the track haulage system and equipment. Seven of these citations were not terminated at the time of the accident. Each of these citations was designated as non-S&S, moderate negligence, with one person affected. The violations were as follows.

- Six violations of 30 CFR 75.1403 were cited for failure to maintain switches at various locations on the mine track system.

- Two violations of 30 CFR 75.400 were cited for accumulations of oil-soaked coal dust on mobile equipment.
- One violation of 30 CFR 75.1100-3 was cited for insufficient examination dates on fire extinguishers provided for a diesel locomotive.
- Two violations of 30 CFR 75.1911 were cited for failure to provide proper fire suppression on a diesel locomotive.
- One violation of 30 CFR 75.1909 was cited for an improperly placed fire extinguisher on a diesel locomotive.

September 20, 2001

On the day shift of September 20, 2001, an inspector checked the preshift and on-shift examination records for the longwall with the intent of checking permissibility on that section, which needed to be completed for the ongoing regular inspection. The records for the preshift examination (conducted between 5:00 a.m. and 6:00 a.m.) did not report any hazards. However, the previous on-shift examination record documented the following: methane in excess of 1.0 percent, knock power, work on ventilation and dust parameters, and rock dust the tailgate.

Prior to going underground, the operator requested that the permissibility inspection be conducted on an evening shift. After the inspector informed the operator that he still intended to go to the longwall, the operator called the inspector's supervisor and told him that they needed to run the longwall. The inspector's supervisor then telephoned him and asked that an area other than the longwall be inspected, since the District's practice was to conduct permissibility inspections on idle shifts. The inspection activities were redirected accordingly. During that shift, the operator's records of examinations indicated that 1.0 percent methane was present at the tailgate of the longwall on two different occasions and that 1.8 percent methane was detected in the longwall return.

Instead of traveling to the longwall, the inspector conducted a rock dust survey of the 4 Section entries and tested CO sensors along the 4 Section, 4 East, and 2 East conveyor belts. During this activity, six citations were issued, including: three for accumulations of float coal dust (in the 4 Section left return, 4 East belt entry, and 2 East belt entry); two for failure to maintain permanent stoppings in the 4 Section entries; and one for accumulations of combustible materials (loose coal) at the 4 Section tailpiece.

Four of the eight rock dust samples collected in the 4 Section entries contained less than the required incombustible content. However, the analysis results were not returned to the District until after the accident.

All of the citations were issued with moderate negligence, non-S&S designation, and one person affected; and none were terminated at the time of the accident. The operator's records of on-shift examinations in 4 Section indicated that the

accumulations of combustible materials at the tailpiece were cleaned up during the following shift. However, these records did not show corrective actions prior to the accident for the other violations cited. Additionally, none of the operator's belt examination records listed any of the hazards cited or that corrective action was taken.

Enforcement of Specific Safety Standards
Contributory Violations

This section addresses the enforcement of mandatory safety standards associated with roof control, workplace examinations, incombustible content of mine dust, the fire fighting and evacuation plan, and participation in fire drills. MSHA's accident investigators determined that the mine operator's violation of these mandatory safety standards caused or contributed to the September 23, 2001, explosions at the No. 5 Mine.

Enforcement of 30 CFR 75.202(a)
Protection from falls of roof, face and ribs

Requirement: Mandatory safety standard 30 CFR 75.202(a) requires that the roof, face and ribs of areas where persons work or travel be supported or otherwise controlled to protect persons from hazards related to falls of the roof, face or ribs, and coal or rock outbursts.

The *CMS&H General Inspection Procedures Handbook* requires inspectors to inspect, evaluate, and document general roof conditions.

Statement of Facts: The MSHA accident investigation team determined that the roof in the No. 2 entry of 4 Section at the intersection of SS 13333 was not supported or otherwise controlled to protect persons from hazards related to a fall of roof in that area. On Friday, September 21, a crack in the roof was observed, a noise was heard and water was observed dripping from some roof bolt holes at this location. The section coordinator directed the section foreman to have supplemental roof support (cable bolts) installed through the intersection. About sixteen, 10-foot long cable bolts were installed during day shift on Friday. Methane, water, broken coal and broken shale were encountered above the anchorage zone of the primary roof supports (72-inch fully grouted resin bolts). Competent roof was not encountered in the anchorage zone of many of the cable bolt holes, rendering the cable bolts ineffective. An unintentional roof fall occurred in that area on September 23rd. As the mine roof fell, methane was liberated from the strata into the mine entries. Arcing of a scoop battery that was damaged by the roof fall ignited the methane. The explosion damaged critical ventilation controls and disrupted the airflow. A second explosion resulted in fatal

injuries to miners. The accident investigators issued a section 104(a), S&S citation for this violation of 30 CFR 75.202(a).

The last MSHA presence in 4 Section was on September 20, 2001, when an inspector conducted a rock dust survey. The accident investigation team determined that changes were not noticed in the conditions near the SS 13333 until the day shift on Friday, September 21, 2001, when the section coordinator heard a noise and saw a small crack in the roof and water dripping near the intersection.

During the review period, District 11 personnel issued 22 citations for violations of 30 CFR 75.202(a). Of these 22 violations, 18 were designated as S&S. Twelve of the 22 violations were due to unsupported roof created by loose bolts in isolated areas or bolts too far from the rib. Four violations were due to unsupported pots in the roof. The other violations were due to various individual conditions such as a loose overhanging brow, loose ribs, loose rock on a corner, and cribs not set against the roof.

Conclusion: The internal review team determined that District 11 personnel understood the requirements of 30 CFR 75.202(a) and demonstrated they would have taken appropriate enforcement action if they had observed a violation of this standard at the No. 5 Mine. Based upon the sequence of events surrounding the deteriorating roof conditions and subsequent roof fall at SS 13333, the hazardous roof conditions were not noticeable at the time of MSHA's last inspection activity at the No. 5 Mine on September 20, 2001.

Recommendation: None.

Enforcement of 30 CFR 75.360

Preshift examination at fixed intervals

Requirement: Mandatory safety standard 30 CFR 75.360 requires, in part, a certified person designated by the operator to make a preshift examination of required locations within 3 hours preceding the beginning of any 8-hour interval during which any person is scheduled to work or travel underground. The certified person conducting any workplace examination shall check for hazardous conditions, test for methane and oxygen deficiency, and determine if the air is moving in its proper direction.

The examiner is required to certify by initials, date, and time that the examinations were made. A record shall be made of the results of the examination including a record of hazardous conditions and their location, and results and locations and air and methane measurements. A record shall also be made by a certified person of the action taken to correct hazardous conditions found during the preshift examination. All required methane readings are required to be recorded as the percentage of methane measured by the examiner.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* requires that inspectors evaluate the operator's compliance with the requirements for conducting preshift, on-shift and weekly examinations during every regular inspection by:

1. Selectively traveling (at least once) with the person(s) who performs the preshift, on-shift, and weekly examinations to evaluate the thoroughness and completeness of such examination;

2. Determining that all areas where persons work or travel are properly examined;

3. Determining if the required exams are conducted by certified examiners; and

4. Evaluating the operator's examination records to determine that examination results appear to be authentic.

Statement of Facts: MSHA's accident investigators determined that adequate preshift examinations were not conducted in 4 Section where persons were scheduled to perform work during three consecutive shifts beginning on the afternoon shift of September 22, 2001. A hazardous condition consisting of inadequate rock dust existed, but was not identified by the examiner. The condition was obvious, widespread and in the areas traveled by the examiner. During the investigation, mine dust samples were collected throughout 4 Section. These band samples were subjected to a laboratory Incombustible Analysis. The analysis revealed that approximately 97 percent of the sample results did not meet the regulatory requirements for incombustible content of the combined coal dust, rock dust, and other dust. None of the 31 band samples taken in the inby area of 4 Section met the regulatory requirements. The average incombustible content was less than 40 percent, indicating a condition significantly below the regulatory requirements that should have been recognized by a prudent mine examiner. This area of 4 Section was not flooded during recovery operations and was the location where both explosions originated. This was also the area where coal dust became the primary fuel for the second explosion. MSHA investigators determined that this violation contributed to the severity and extent of the second explosion that resulted in fatal injuries. The accident investigation team issued three §104(d)(1), S&S orders, for a violation of 30 CFR 75.360(b)(3) on each shift.

MSHA accident investigation team issued three additional citations (all non-S&S) for other violations of 30 CFR 75.360 that did not contribute to the accident. The three violations were as follows:

1. 30 CFR 75.360(a)(1) – Non-certified miners routinely entered areas where preshift examinations had not been conducted to conduct independent safety inspections.

2. 30 CFR 75.360(f) – There were no records to indicate preshift examinations were conducted for the 2 East Sump area, the F Headgate area, and the H Panel Tailgate area where personnel were scheduled to work on the afternoon shift on Sunday, September 23, 2001.

3. 30 CFR 75.360(f) –A review of the preshift record books from March 23, 2001 through September 23, 2001, conducted during the accident investigation, revealed a practice of recordkeeping deficiencies as follows:

    - Hazardous conditions such as float coal dust and loose ribs observed underground were not always recognized and recorded in the accepted preshift record book. A second book was used to record certain conditions. By recording the conditions in a second book, the reviewer would not be aware that a hazardous condition existed and that actions were necessary.

    - Corrective actions for hazardous conditions were not always recorded.

    - Methane readings were not always recorded as a quantitative amount.

    - Areas needing rock dusted were not always recorded.

During the review period, District 11 inspection personnel issued 27 citations on preshift examinations at the No. 5 Mine. Seven of these violations were classified as S&S (26 percent).

The internal review team identified the following deficiencies while reviewing copies of the pre-shift examination record books.

1. Examinations of high spots, pursuant to 30 CFR 75.360(b)(8) and 75.360(f). On at least two working sections, high spots were encountered which required the areas to be examined. Some examinations of high spots (cavities) were recorded as required. However on several occasions, there was no record of high spot examinations. Required methane readings in the high spots when examined were recorded as "excess CH_4 in cavity, or less than 1% CH_4, or high top clear of excess CH_4." Section 75.360(f) requires the results of methane tests be recorded as the percentage of methane measured by the examiner.

2. Record of volume of air in intake entry or entries at the intake end of the longwall and velocities of air at required locations, pursuant to 30 CFR 75.360(c)(2) and 75.360(f). Several air readings were not recorded for the intake entries of the longwall section. Airflow measurements at locations specified in the approved ventilation plan were recorded as quantities rather than velocities as required.

3. Record of examination of permanent pumps, pursuant to 30 CFR 75.360(b)(9) and 30 CFR 75.360(f). No record was available to show pre-shift examinations were conducted for permanent pumps. Examinations were conducted and recorded only for power centers that supplied power to the permanent pumps.

District 11 personnel provided training in workplace examinations to enforcement personnel within the District. They also trained persons within the mining community, which included persons from the No. 5 Mine. During the training, the District 11 instructors stated that accumulations of float coal dust constituted a hazard and were required to be recorded pursuant to examination standards.

The operator frequently documented hazards found during workplace examinations in a second set of record books. During workplace examination training, the instructors were questioned regarding the second set of books. In response, the instructor stated that he did not advocate the second set of books, but acknowledged that it was an option provided that all hazards and corrective actions taken were documented in the records required by the applicable examination standards. The operator documented areas examined with air and methane measurements in one record book that was made available to inspectors. If hazards were observed in areas where examinations were conducted, the examiners would frequently document them in the second set of record books.

During interviews, one inspector stated that the practice of maintaining the second set of books had been discovered at another mine within the District. Some inspectors interviewed were aware of the existence of the second set of record books at the No. 5 Mine. However, most inspectors stated that they had no knowledge of the second set of books.

A review of inspection notes indicated that District 11 inspectors traveled with mine examiners at the No. 5 Mine on all shifts during the five regular inspections examined. However, on 114 occasions during the five regular inspections, there was no documentation to indicate that the inspectors examined the preshift records prior to going underground.

Conclusion: The internal review team determined that several deficiencies in the preshift examinations at the No. 5 Mine should have been identified by District 11 personnel and appropriate enforcement action taken. Hazardous conditions and corrective actions were not always documented in the operator's required preshift examination records. The operator frequently documented hazards found during preshift examinations in a second set of books, without corrective actions. Methane readings were not always recorded as a percentage. Non-certified miners routinely entered areas where preshift examinations had not been conducted to perform independent safety inspections. Areas needing rock dusted were not recorded. These

deficiencies were present during one or more inspections conducted by District 11 personnel, but were not identified and cited.

During the five regular inspections conducted from June 6, 2000, to the time of the accident, inspectors did not document that the preshift records were examined on 114 occasions prior to going underground. Reviews of inspection reports by District 11 supervisors and managers did not identify and correct these deficiencies.

The accident investigation team determined that inadequate preshift examinations conducted on September 22 and 23, 2001, on 4 Section contributed to the severity and extent of the second explosion that resulted in fatal injuries. The last MSHA presence on 4 Section was September 20, 2001.

Corrective Action Taken: The Administrator has issued a directive emphasizing the importance of conducting proper workplace examinations and proper recordkeeping that includes all hazards observed by the examiner. All districts have been asked to evaluate the examinations made at each underground mine along with a review of the record books indicating noted hazards, the length of time that a hazard existed, and the action taken to correct the hazard.

Recommendation: The District 11 Manager should provide adequate oversight to ensure that established inspection procedures regarding preshift examinations are followed. District 11 should conduct reviews each inspection quarter to evaluate the overall effectiveness and quality of their inspections and provide assurance that inspection procedures are followed.

Enforcement of 30 CFR 75.362

On-shift examination

Requirement: Mandatory safety standard 30 CFR 75.362 states that a certified person designated by the operator shall conduct an on-shift examination at least once each shift, or more often if necessary for safety, of each section where anyone is assigned to work. During each shift that coal is produced, a certified person shall examine for hazardous conditions along each belt conveyor haulageway where a belt conveyor is operated. A certified person must also certify that an examination has been conducted to assure compliance with the respirable dust control parameters specified in the mine ventilation plan.

Mandatory safety standard 30 CFR 75.363 requires any hazardous condition found by the examiner or other equivalent mine officials during the examination must be posted with a conspicuous danger sign where anyone would enter the area. The condition shall be corrected immediately or remain posted. This standard also requires a record

be made of any hazardous condition found by a certified person and corrective action taken, including hazards found during on-shift examinations.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* directs inspectors to thoroughly examine all record books required by the Mine Act and regulations.

Chapter 5 of the *CMS&H General Inspection Procedures Handbook* provides procedures for issuing citations and orders. It informs inspection personnel that the issuance of many citations and orders may require other standards to be cited. For example, a violation cited under 30 CFR 75.202 for loose or over-hanging coal ribs may require a violation to be cited for inadequate on-shift examinations under 30 CFR 75.362.

Statement of Facts: MSHA's accident investigators concluded that an adequate on-shift examination was not conducted in 4 Section where two mechanics were assigned to work during the afternoon shift on September 22, 2001. A hazardous condition consisting of inadequate rock dust existed, but was not identified by the examiner. The condition was obvious, widespread and in the areas traveled by the examiner. During the investigation, mine dust samples were collected throughout 4 Section. These band samples were subjected to a laboratory Incombustible Analysis. The results revealed that approximately 97 percent of the sample results did not meet the regulatory requirements for incombustible content of the combined coal dust, rock dust, and other dust. None of the 31 band samples taken in the inby area of 4 Section met the regulatory requirements. The average incombustible content was less than 40 percent, indicating a condition significantly below the regulatory requirements that should have been recognized by a prudent mine examiner. This area of 4 Section was not flooded during recovery operations and was the location where both explosions originated. This was also the area where coal dust became the primary fuel for the second explosion. The condition contributed to the severity and extent of the second explosion that resulted in fatal injuries. MSHA's accident investigation team issued a §104(d)(1), S&S order for this violation of 30 CFR 75.362(a)(1).

During the review period, District 11 inspectors issued seven citations relating to on-shift examinations. One of the seven citations was issued for an inadequate on-shift examination, three were for not having an effective means to test for methane at the working face, two were for not certifying that respirable dust parameters were checked, and another was for failure to test for methane prior to equipment entering a working place.

Excessive methane levels were frequently encountered during inspections of the No. 5 Mine. During a one-year period from September 21, 2000, through September 20, 2001, inspection notes indicate that methane accumulations of one percent or greater were detected on the working sections 36 times. MSHA personnel discovered the excessive methane levels on 33 of the 36 occasions and notified the operator of the hazards. Section 75.362 states that on-shift examinations will be conducted once each shift, or

more often if necessary for safety on each section. The frequent occurrence of methane in excess of one percent should have triggered more frequent on-shift examinations by the operator. However, no citations were issued for inadequate on-shift examinations when inspectors encountered excessive methane on working sections.

During this same period, 35 citations were issued for accumulations of combustible material in belt conveyor entries for a total of approximately 41,000 feet. In some cases, stuck rollers or rollers turning in the accumulation would be documented in the inspectors' notes. The operator was cited for failure to conduct an adequate on-shift examination on one occasion. A description of this and other related citations follows.

- On April 30, 2001, a citation (7676307) was issued for a violation of 30 CFR 75.1725(a) due to numerous stuck rollers generating heat on the 1-East belt. The violation was designated as S&S, moderate negligence, with two persons affected. In addition, the inspector issued a §104(d)(1) citation (7676308) for large accumulations of dry coal and coal dust, along with substantial amounts of float coal dust, extending from the area affected by the stuck rollers inby for a distance of 3,800 feet. These conditions were described in a book entitled "Belt Report Record Book." This was part of a second set of books maintained by the operator for conditions that required attention, but were not considered hazards. A citation (7676309) was issued for an inadequate on-shift examination, a violation of 30 CFR 75.362(b). The citation was designated as high negligence, S&S, and five persons affected. As previously discussed in the ACRI section of this report, the on-shift citation was later modified to moderate negligence.

During the review period, several additional citations were issued for violations of 30 CFR 75.1725(a) which described conditions which should have been identified during on-shift examinations and recorded as hazardous conditions. Two examples follow.

- On September 14, 2001, a citation (7677349) was issued for a violation of 30 CFR 75.1725(a) because the Submain B belt conveyor was not being maintained in a safe operating condition. The belt was cutting into the metal brackets that were hot to the touch. In addition, a citation (7677347) was issued for an accumulation of float coal dust for a distance of approximately 7,000 feet, a violation of 30 CFR 75.400. Both citations were issued as S&S, moderate negligence, and one person affected. The hazards were described in the separate or second set of books maintained by the operator, but were not recorded in the examination records.

- On September 18, 2001, a citation (7677358) was issued for a violation of 30 CFR 75.1725(a) because the 2 East belt conveyor was not being maintained in a safe operating condition. The belt was running against the metal structure, the area was hot to the touch, and smoke was observed in the area. In addition, a citation (7677356) was issued for an accumulation of float coal dust for a distance of approximately 2,600 feet, a violation of 30 CFR 75.400. Both citations were issued as

S&S, moderate negligence, and one person affected. The hazards were described in the separate or second set of books maintained by the operator, but were not recorded in the examination records.

Conclusion: District 11 personnel did not effectively enforce the provisions of 30 CFR 75.362 for on-shift examinations at the No. 5 Mine. District 11 inspectors discovered numerous hazardous conditions during their inspections at the No. 5 Mine and issued citations requiring the operator to correct the hazards. From September 21, 2000, to September 20, 2001, thirty-five citations were issued for accumulations of float coal dust in belt conveyor entries. These entries were required to be examined for hazardous conditions by a certified person during each shift that coal was produced. Many of these hazards were identified during on-shift examinations but were recorded in the second set of books maintained by the operator and not recorded in the examination records. Only one citation for an inadequate on-shift examination was issued in conjunction with accumulations of float dust in belt conveyor entries.

The number of float coal dust citations in belt conveyor entries should have prompted supervisors and inspectors to question the adequacy of on-shift examinations at the No. 5 Mine.

Methane accumulations of one percent or greater were detected on the working sections 36 times. MSHA personnel discovered the excessive methane levels on 33 of the 36 occasions and notified the operator of the hazards. The operator should have discovered these excessive methane accumulations and taken corrective actions if adequate on-shift examinations had been conducted as often as necessary for safety. The frequent occurrence of methane in excess of one percent should have triggered more frequent on-shift examinations by the operator. However, no citations were issued for inadequate on-shift examinations when inspectors encountered excessive methane on working sections.

Corrective Action Taken: The Administrator has issued a directive to all inspection personnel emphasizing the importance of conducting proper workplace examinations and proper recordkeeping that includes all hazards observed by the examiner. All districts have been asked to evaluate the examinations made at each underground mine along with a review of the record books indicating noted hazards, the length of time that a hazard existed, and the action taken to correct the hazard.

Recommendation: The District 11 Manager must ensure that report and paperwork reviews highlight potential problems with examinations and record keeping.

Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's records of examinations to determine if hazards are being recorded with corrective actions. Emphasis should be placed on inspection personnel to check

relevant records of examinations as a resource to determine the length of time a particular hazard has existed.

Enforcement of 30 CFR 75.403

Maintenance of Incombustible Content of Rock Dust

Requirement: Mandatory safety standard 30 CFR 75.402 requires in part that all underground areas of a coal mine, except those areas in which the dust is too wet or too high in incombustible content to propagate an explosion, shall be rock dusted to within 40 feet of all working faces. Mandatory safety standard 30 CFR 75.402-1 states that the term "too wet" means that sufficient natural moisture is retained by the dust that when a ball of finely divided material is squeezed in the hands water is exuded.

Mandatory safety standard 30 CFR 75.403 states that, where rock dust is required to be applied, it shall be distributed upon the top, floor, and sides of all underground areas of a coal mine and maintained in such quantities that the incombustible content of the combined coal dust, rock dust, and other dust shall not be less than 65 percent, but the incombustible content in the return air courses shall be no less than 80 percent. Where methane is present in any ventilating current, the percent of incombustible content of such combined dusts shall be increased 1.0 and 0.4 percent for each 0.1 percent of methane where 65 and 80 percent incombustible content is required.

Inspection procedures contained in Chapter 4 of the *CMS&H General Inspection Procedures Handbook* require inspectors to conduct rock dust surveys during each regular inspection for advancing sections. These surveys provide data to form conclusions regarding adequacy or inadequacy of rock dusting in a mine. If more than 10 percent of the dust samples collected in a dust survey of a particular area or section are substandard, as shown by analysis, a citation must be issued. In addition to rock dust surveys, the handbook also requires inspectors to collect spot samples to substantiate the violation when citing a location for inadequate rock dust.

Statement of Facts: During the accident investigation, a total of 123 mine dust samples were collected throughout 3 East, 4 East, 4 Section, 6 Section, and the connecting entries for Shaft 5-9. These band samples were subjected to a laboratory Incombustible Analysis. The analysis revealed that 121 (98.4 percent) of the sample results did not meet the regulatory requirements for incombustible content of the combined coal dust, rock dust, and other dust of at least 65 percent in the intake air courses and at least 80 percent in the return air courses. None of the 31 band samples taken in the inby area of 4 Section met the regulatory requirements. This area of 4 Section was not flooded during recovery operations and was the location where both explosions originated. This was also the area where coal dust became the primary fuel for the second explosion. The condition contributed to the severity and extent of the second explosion

that resulted in fatal injuries. MSHA's accident investigation team issued a §104(d)(1), S&S citation for this violation of 30 CFR 75.403.

District 11 inspection reports indicated that inspection personnel conducted 13 rock dust surveys at the No. 5 Mine during the period June 6, 2000, through September 20, 2001. In addition to the uniform rock dust surveys, seven spot samples were collected throughout the review period. One spot sample was collected near the active longwall headgate to substantiate citation number 7669758. Six spot samples were collected near 5 Section to substantiate citation number 7675495.

The review team examined inspection records for each of the 13 rock dust surveys conducted during the review period. A brief summary for each survey follows.

Survey No. 1. On August 30, 2000, twenty-three rock dust samples were collected on 4 Section. Five of the twenty-three samples were below the minimum required incombustible content, and citation number 7674699 was issued on September 22, 2000.

Survey No. 2. On September 5, 2000, eight rock dust samples were collected on 6 Section. Two samples were below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 3. On September 5, 2000, five rock dust samples were collected on 5 Section. Two samples were below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 4. On November 27, 2000, two rock dust samples were collected on 4 Section. Two additional locations examined during the survey were too wet to sample. Both samples were in compliance with the requirements of 30 CFR 75.403.

Survey No. 5. On November 29, 2000, four rock dust samples were collected on 5 Section. All four samples were in compliance with the requirements of 30 CFR 75.403.

Survey No. 6. On December 13, 2000, 15 rock dust samples were collected on 6 Section. Five samples were below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 7. On March 23, 2001, sixteen rock dust samples were collected on 1 Section. Inspection notes indicated the presence of approximately 1.0 percent methane in the return entries being surveyed. One of the samples was out of compliance without considering the methane; two additional samples would have been out of compliance if methane was considered. No citation was issued for this violation of 30 CFR 75.403.

Survey No. 8. On March 26, 2001, twenty-nine rock dust samples were collected on 5 Section. Five samples were below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 9. On March 27, 2001, nine rock dust samples were collected on 6 Section. One sample was below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 10. On June 14, 2001, fourteen rock dust samples were collected on 5 Section. Two locations examined during the survey were too wet to sample. All fourteen samples were in compliance.

Survey No. 11. On June 15, 2001, fourteen rock dust samples were collected on 6 Section near Shaft 5-9. Four samples were below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 12. On June 18, 2001, twenty rock dust samples were collected on 1 Section. Eight samples were below the minimum required incombustible content, indicating the area was not in compliance with 30 CFR 75.403. No citation was issued for this violation.

Survey No. 13. On September 20, 2001, eight rock dust samples were collected on 4 Section and subsequently sent to MSHA's Mt. Hope, West Virginia laboratory. On September 28, 2001, the laboratory received the samples, and the analytical results subsequently indicated that this survey was not in compliance with 30 CFR 75.403. Due to the sequence of events, District 11 was not aware that this survey was not in compliance at the time of the explosion.

The internal review team determined that nine of the twelve rock dust surveys collected between August 30, 2000, and June 18, 2001, were not in compliance with 30 CFR 75.403. Of the nine surveys determined to be out of compliance, only one citation was issued for a violation of 30 CFR 75.403.

During interviews by the internal review team, District 11 inspection personnel stated that they understood the procedures for collecting rock dust samples. The inspectors stated that the majority of rock dust surveys at the No. 5 Mine were conducted near the end of the inspection quarter, and the inspector who conducted the survey was most likely assigned to another mine by the time the sampling results were received. Inspectors also indicated that they did not consider methane concentrations when evaluating sample results for compliance with 30 CFR 75.403.

Conclusion: District 11 managers and supervisors did not have an effective system in place in the Hueytown field office to ensure that appropriate enforcement action was taken when rock dust surveys were out of compliance. As a result, District 11 personnel did not always initiate appropriate enforcement action following analyses of rock dust surveys at the No. 5 Mine. The internal review team determined that nine of the twelve rock dust surveys collected between August 30, 2000, and June 18, 2001, were not in compliance with 30 CFR 75.403. Of the nine surveys that were out of compliance, only one citation was issued. District 11 personnel were not aware of the requirement to consider methane when evaluating sample results for compliance with 30 CFR 75.403.

Corrective Action Taken: The Administrator has issued a memorandum directing the Mount Hope laboratory to formulate a system of electronic transmission of rock dust sample results that would be readily accessible to the responsible inspection and clerical personnel. The system should electronically flag sample results that indicate possible noncompliance. The electronic capabilities would enhance the districts' ability to make compliance determinations in a more timely and efficient manner and would also ensure proper enforcement action is taken when warranted.

District 11 has implemented the following interim procedures regarding rock dust surveys.

1. Rock dust surveys will be completed by the end of the second month of each quarter at every mine. This will permit an inspector to take the samples, obtain the results and issue appropriate actions during the same AAA.
2. The inspector and supervisor will maintain separate tracking systems, which can be cross-referenced to insure that all of the requisite surveys are conducted, and appropriate action taken.
3. When the field office secretary receives the results from the Mt. Hope Analysis Lab, copies will be distributed to both the inspector and supervisor. The inspector and supervisor will determine compliance/noncompliance. The results of the survey including the citations/orders will be attached to the appropriate survey.
4. As of October 1, 2002, the field office secretary will maintain a rock dust database. A quarterly report will be generated that shows required surveys, surveys conducted, and the follow-up actions.

Recommendation: The District 11 Manager should direct enforcement personnel take appropriate enforcement action when visual observation of rock dust samples collected indicates possible noncompliance.

Enforcement of 30 CFR 75.1101-23(a)

Program of instruction; location and use of fire fighting equipment; location of escapeways, exits and routes of travel; evacuation procedures; fire drills

Requirement: Mandatory safety standard 30 CFR 75.1101-23(a) requires each operator to adopt a program for the instruction of all miners in the location and use of fire fighting equipment, location of escapeways, exits, and routes of travel to the surface, and proper evacuation procedures to be followed in the event of an emergency. The program shall be submitted for approval to the district manager. The program shall include a specific fire fighting and evacuation plan. The plan shall include procedures for evacuation of all miners not required for fire fighting activities; rapid assembly and transportation of necessary persons, fire suppression equipment, and rescue apparatus to the scene of the fire; and the operation of fire suppression equipment available in the mine.

The *MSHA Program Policy Manual* for 30 CFR 75.1101-23 states, in part, that approval should be granted if the program meets the stated requirements of the regulations. Fire fighting plans will be acceptable if the fire drills as outlined in such plans satisfy the intent of this regulation, which includes making all miners familiar with fire fighting procedures to be followed at the mine. The mine operator's program of instruction must include all miners on all shifts. The training program should emphasize the location of the proper routes of travel and the importance of prompt evacuation when such an order is given. The program should stress the necessity, upon the first indication of fire, of mine personnel making prudent decisions about the evacuation process.

Statement of Facts: MSHA's accident investigators determined that a proper evacuation procedure was not followed after the first explosion on 4 Section. Miners were not evacuated from the mine after an explosion damaged critical ventilation controls. These conditions were known by, and communicated to, management personnel, including the CO Room Supervisor. The section foreman believed there was a possibility of a second explosion and did not effectively communicate this information to other miners.

Miners from other areas of the mine responded to the emergency on 4 Section believing either an ignition or a fire had occurred. These miners were unaware an explosion had occurred and a second explosion was possible. Miners underground were not alerted to the problem through the mine-wide telephone paging system. Also, management directed 7 additional miners to join the 13 already in 4 Section. MSHA's accident investigation team issued a §104(d)(1), S&S order for this violation of 30 CFR 75.1101-23(a).

A program of instruction (program) for the No. 5 Mine, which included a fire fighting and evacuation plan, was approved by the District Manager on July 15, 1988. On

December 17, 1998, the District Manager implemented a standard operating procedure (SOP) for program reviews. The SOP covered clerical tracking of the review process and required a review of programs every two years.

District 11 completed a review of the program on June 24, 1999, identifying several deficiencies. The District Manager requested that the operator remove outdated material, update mine information such as telephone numbers and number of employees, and delete references to equipment and job titles no longer in use.

The operator submitted a revised program of instruction that was subsequently approved by the District Manager on July 22, 1999. This program which included the fire fighting and evacuation plan was in effect at the time of the accident.

The internal review team compared the approved program with the requirements of 30 CFR 75.1101-23. The program addressed evacuation procedures, location and use of fire fighting equipment, location of escapeways, exits and routes of travel to the surface, evacuation procedures, and fire drills.

The program required instruction in evacuation procedures. It specified that the person at the manned location on the surface be trained in the operation of the carbon monoxide (CO) monitoring system and in proper procedures to follow in the event of an emergency. It also specified that a supervisor or designated person assemble all miners promptly and lead the way during an evacuation.

Conclusion: The approved program met the requirements of 30 CFR 75.1101-23(a), however, it was not specific in describing the responsibilities of the responsible person on the surface and the responsible person underground during emergency evacuation. Relevant MSHA policy does not adequately address responsibilities of the responsible person on the surface and the responsible person underground.

Corrective Action Taken: The District Manager requested a revised fire fighting and evacuation plan for the No. 5 Mine on December 19, 2001. A revised plan was submitted and subsequently approved on March 18, 2002. The revised plan specifically addresses responsibilities of the responsible persons on the surface and underground during an evacuation of the mine.

On December 12, 2002, MSHA issued an emergency temporary standard (ETS) under section 101(b) of the Mine Act. This ETS requires operators of underground coal mines to designate, for each shift that miners are working underground, a responsible person in attendance at the mine to take charge during mine fire, explosion, and gas or water inundation emergencies. In order to make an informed decision regarding an evacuation, this ETS also requires that the designated responsible person have current knowledge of various mine systems that protect the safety and health of miners. In addition, this ETS requires the responsible person to initiate and conduct an immediate

mine evacuation when there is a mine emergency which presents an imminent danger to miners due to fire, explosion, or gas or water inundation. This ETS further provides that only properly trained and equipped persons essential to respond to the mine emergency may remain underground.

This ETS also broadens the existing requirements for a program of instruction for firefighting and evacuation to address fire, explosion, and gas or water inundation emergencies.

Recommendation: None.

Enforcement of 30 CFR 75.1101-23(c)

Participation in Fire Drills

Requirement: Mandatory safety standard 30 CFR 75.1101-23(c) states that each operator of an underground coal mine shall require all miners to participate in fire drills, which shall be held at periods of time so as to ensure that all miners participate in such a drill at intervals of not more than 90 days.

Mandatory safety standard 30 CFR 75.1101-23(c)(1) provides that the operator shall certify by signature and date that the fire drills were held in accordance with the requirements of this section. Certifications shall be kept at the mine and made available on request to an authorized representative of the Secretary.

Mandatory safety standard 30 CFR 75.1101-23(c)(2) clarifies that a fire drill shall consist of a simulation of the actions required by the approved fire fighting and evacuation plan.

The *MSHA Program Policy Manual* for 30 CFR 75.1101-23 states, in part, that various types of training will constitute a fire drill, e.g., demonstrations (surface or underground), hands-on training, group discussions, and task-oriented training. Fire fighting plans will be acceptable if the fire drills as outlined in such plans satisfy the intent of this regulation, which includes making all miners familiar with fire fighting procedures to be followed at the mine. The mine operator's program of instruction required by 30 CFR 75.1101-23 must include all miners on all shifts.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* directs inspectors to thoroughly examine all record books required by the Mine Act and regulations.

Chapter 8 of the *CMS&H General Inspection Procedures Handbook* directs inspectors to list in their notes record books that are checked.

Statement of Facts: MSHA's accident investigators determined the operator failed to conduct fire and emergency drills at intervals of not more than 90 days. Interviews of underground miners and a review of mine records indicate that no such drills had been conducted since March 2001. The lack of training and simulation relative to proper evacuation procedures to be followed in the event of an emergency, affected the miners' response to the emergency situation of September 23, 2001. The accident investigation team issued a §104(d)(1), S&S order for this violation of 30 CFR 75.1101-23(c).

The program of instruction for the No. 5 Mine was approved by the District Manager on July 22, 1999, and specified that fire drills would be conducted on all three shifts. The program assigned firefighting responsibilities to miners by occupation. The program stated that all miners would be acquainted with procedures for rapid assembly and transportation of necessary personnel, fire suppression equipment, and rescue apparatus to the scene of the fire during the first fire drill conducted each year. In addition, the program specified that the section foreman would review the proper use of self-contained self-rescuers (SCSR) during fire drills. The approved program specified that a record of each fire drill would be maintained in the safety office.

A review of inspection notes indicated inspection personnel did not document that the records of fire drills were examined during two of the four complete regular inspections. The inspection notes for the second (September to December 2000) and fourth (March to June 2001) regular inspections did not document inspection of these records. These records had not yet been examined during the most recent inspection, which was ongoing at the time of the accident.

A review of inspection records for the No. 5 Mine disclosed that District 11 personnel did not issue any citations for violations of 30 CFR 75.1101-23(c) during the review period.

Conclusion: District 11 personnel did not always examine records of fire drills during regular inspections. The inspection notes for the second (September to December 2000) and fourth (March to June 2001) regular inspections did not document inspection of records for fire drills. The fourth regular inspection report was reviewed by both the supervisor and second-level manager who should have identified and corrected this deficiency. These records had not been examined during the regular inspection that began in July 2001; however, this activity had not been completed at the time of the accident.

Recommendation: The District 11 Manager should ensure that report and paperwork reviews highlight potential problems with examinations and record keeping. Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's records.

The Administrator should evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve and clarify note keeping procedures to ensure that record books are not overlooked during inspections.

Enforcement of Specific Safety Standards
Non-Contributory Violations

This section of the report addresses other enforcement issues examined by the review team. These issues are not related to MSHA enforcement of the specific safety standards that were cited by the accident investigation team as contributing to or causing the September 23, 2001, accident, but are germane to the activities of MSHA at the No. 5 Mine prior to the accident.

Enforcement of 30 CFR 75.214
Supplemental support materials, equipment and tools

Requirement: Mandatory safety standard 30 CFR 75.214(a) requires that a supply of supplementary roof support materials and the tools and equipment necessary to install the materials shall be available at a readily accessible location on each working section or within four crosscuts of each working section.

Mandatory safety standard 30 CFR 75.214(b) requires that the quantity of support materials and tools and equipment maintained available in accordance with this section shall be sufficient to support the roof if adverse roof conditions are encountered, or in the event of an accident involving a fall.

The preamble for the final rule states that the "supplies will expedite recovery operations in the event of an accident, and provide for the installation of supplemental supports when adverse roof conditions are encountered."

Statement of Facts: MSHA's accident investigators determined that the operator failed to maintain a sufficient amount of supplementary roof support materials on 4 Section. There were no such materials available on 4 Section from day shift on Saturday, September 22, 2001, until day shift on Sunday, September 23, 2001. MSHA's accident investigation team determined that this violation did not contribute to the accident and issued a §104(a), S&S citation for this violation of 30 CFR 75.214(b).

In interviews conducted by the internal review team, District 11 personnel stated that they were familiar with the requirements of 30 CFR 75.214. They indicated that they inspected the supply of supplemental roof support materials during regular inspections, and that supplemental support materials were typically kept at varied locations on or near the working sections of the No. 5 Mine. However, inspectors

differed in their opinions as to what constituted a sufficient supply of the materials. There is no national guidance for determining specific type and adequate quantity of supplemental materials.

Conclusion: The internal review team determined that the violation cited by the accident investigators occurred after the last MSHA presence at the No. 5 Mine prior to the accident. District 11 personnel differed in their opinions as to what constituted a sufficient supply of supplemental roof support materials. Effective guidance was not provided through national policy for 30 CFR 75.214 regarding the type and quantity of supplemental roof support materials.

Recommendation: The Administrator should evaluate the need to issue guidance regarding the type and quantity of supplemental roof support materials required by 30 CFR 75.214.

Enforcement of 30 CFR 75.333

Construction of permanent ventilation controls

Requirement: Mandatory safety standard 30 CFR 75.333(e)(1)(ii) states that all overcasts, undercasts, shaft partitions, permanent stoppings, and regulators, installed after November 15, 1992, shall be constructed of noncombustible material. Materials that are suitable for the construction of overcasts, undercasts, shaft partitions, permanent stoppings, and regulators include concrete, concrete block, brick, cinder block, tile, or steel.

Section 30 CFR 75.301 defines noncombustible material as that which when used to construct a ventilation control results in a control that will continue to serve its intended function for 1 hour when subjected to a fire test incorporating an ASTM E119-88 time/temperature heat input, or equivalent.

Statement of Facts: MSHA's accident investigators determined that the boards used to construct the right return regulator in 3 East were not made of noncombustible materials and issued a §104(a), non-S&S citation for this violation of 30 CFR 75.333(e)(1)(ii).

During interviews with the internal review team, some District 11 personnel stated that a clear, flame retardant treatment was applied to the wood used to construct regulators at the No. 5 Mine and that this treatment was being accepted as a suitable material for constructing permanent ventilation controls. District 11 also provided the internal review team with information obtained from the operator which stated that the wood was pressure impregnated in accordance with conditions outlined in Military Specification MIL-L-19140E, with a 25 or less flame spread when tested in accordance with ASTM E-84. However, MSHA's Approval and Certification Center, Engineering

and Testing Division, does not list this product as a suitable sealant for mine ventilation controls.

The fire-resistant requirements for noncombustible materials, as referenced in 30 CFR 75.333(e)(1)(ii) and defined in 30 CFR 75.301, are more stringent than those for flame retardant materials. Flame-retardant coatings are designed to inhibit ignition and reduce the surface flammability properties of the substrate to which they are applied. Such coatings are applied as sealants to ventilation controls pursuant to 30 CFR 75.333(f), and must have a flame-spread index of 25 or less. While the application of a flame-retardant product to timber will serve to reduce the rate of flame spread across the surface of the wood, it will not significantly improve the rate at which the timber will char and burn-through when tested under ASTM E119-88.

Conclusion: District 11 personnel did not recognize and take appropriate enforcement action when the operator constructed permanent ventilation controls of combustible wood material.

Recommendation: Due to the fact that inspectors and supervisors did not recognize and cite this violation of 30 CFR 75.333 indicates that this oversight was made due to a lack of understanding of the requirements. Therefore, comprehensive training should be given, including the use of relevant technical support resources, to raise the awareness of the requirements for permanent ventilation controls and relevant ASTM standards.

Enforcement of 30 CFR 75.364

Weekly examinations

Requirement: Mandatory safety standard 30 CFR 75.364 states that a certified person designated by the operator shall examine specified locations at least every 7 days. The standard also specifies locations where air quantities must be measured and where airflow direction and methane and oxygen concentrations must be tested. The examiner must check for hazardous conditions, test for methane and oxygen deficiency, and determine if the air is moving in its proper direction. The examiner is required to certify by initials, date, and time that the examination was made. A record is required of hazardous conditions found, their locations, and the corrective action taken, and the results and location of air and methane measurements. All methane readings must be recorded as percentages. Paragraph (d) of 30 CFR 75.364 requires hazardous conditions found during weekly examinations to be corrected immediately.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* sets forth general procedures to follow when conducting various types of inspections and investigations. This chapter directs inspection personnel to thoroughly examine all record books required by the Mine Act and regulations during each regular inspection. Inspection

personnel are to evaluate the operator's examination records to determine that the results of examinations include the specific area or location examined and that the area is adequately described or identified. Also, air measurements taken by inspectors are to be compared to those taken by examiners at the same locations.

Statement of Facts: MSHA's accident investigators determined that the weekly examinations at the No. 5 Mine were incomplete as follows.

1. Intake air readings were not always being taken at the intake air splits.

2. Corrective actions for hazardous conditions were not always recorded.

3. Air readings were not always being taken where the air entered the longwall bleeder system.

4. Return air readings were not always being taken where the air flow was leaving the main returns.

MSHA's accident investigators issued a non-contributory §104(a), S&S citation for this violation of 30 CFR 75.364.

During the review period, District 11 personnel issued a total of seven citations for violations of 30 CFR 75.364, none of which were designated as S&S. The internal review team compared the airflow measurements shown on the April 2001 mine ventilation map for the No. 5 Mine to the tests and measurements listed in the operator's records of examinations for a three-week period in March and April 2001. Examination records for September 2001 were also compared with a representative ventilation map. In most cases, the results of air measurements were not properly recorded where air flowed into worked-out areas and where air from worked-out areas entered a return split, as required by 30 CFR 75.364(a)(2). There were no instances where quantities were recorded for main intake airflow or for airflow leaving main returns pursuant to paragraphs (c)(1) and (c)(2), respectively.

A review of inspection notes revealed that although inspection personnel recorded approximately 100 air quantity measurements per quarter, relatively few were taken in outby areas. Interviews of District 11 inspection personnel indicated that some inspectors were not familiar with the requirements of 30 CFR 75.364(c), while others indicated that they did not place emphasis on these requirements due to the high volumes of airflow in the main intake and return air courses.

During the review period, hazardous conditions such as float coal dust, damaged ventilation controls, and accumulations of water in travelways were frequently recorded in the operator's weekly examination records at the No. 5 Mine. However, on

numerous occasions, corrective actions for such hazards were not recorded as required by 30 CFR 75.364(h).

Inspector's notes listed relatively few occasions where enforcement personnel checked the weekly examination records. Occasionally, float coal dust accumulations were recorded during weekly examinations prior to being cited, with no corrective action shown. Some hazardous conditions were repeatedly recorded in the records of subsequent examinations. This indicated that immediate corrective action was not always taken as required by 30 CFR 75.364(d). No citations or orders were issued to the operator for failure to comply with this standard during the review period.

Conclusion: District 11 enforcement personnel did not recognize and take appropriate enforcement action for several violations of 30 CFR 75.364. The operator repeatedly failed to properly record the results of air measurements where air flowed into worked-out areas and where air from worked-out areas entered a return split, in intake air courses, and where air flow left main returns.

Also, appropriate enforcement action was not taken when the operator failed to take and/or record corrective actions for those hazards that were identified in the records of weekly examinations. These records were not effectively used to determine how long violations existed.

Corrective Action Taken: The Administrator has issued a directive to all inspection personnel emphasizing the importance of conducting proper workplace examinations and proper recordkeeping that includes all hazards observed by the examiner. All districts have been asked to evaluate the examinations made at each underground mine along with a review of the record books indicating noted hazards, the length of time that a hazard existed, and the action taken to correct the hazard.

Recommendation: The District 11 Manager should implement a system that will identify potential deficiencies related to weekly examinations. This review process should include specialists and field office groups.

Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's records of examinations to determine if hazards are being recorded with corrective actions. Emphasis should be placed on inspection personnel to check relevant records of examinations as a resource to determine the length of time a particular hazard has existed.

Enforcement of 30 CFR 75.370(a)(1)

Mine Ventilation Plan

Requirement: Mandatory safety standard 30 CFR 75.370(a)(1) requires that each operator develop and follow a ventilation plan designed to control methane and respirable dust and that the plan be suitable to the conditions and mining system at the mine. The plan is required to be approved by the district manager.

Mandatory safety standard 30 CFR 75.370(a)(2) states that the proposed ventilation plan and any revision to the plan shall be submitted in writing to the district manager.

CMS&H General Inspection Procedures Handbook requires inspectors to determine that person(s) performing the weekly examinations of the bleeder systems are traveling the bleeder entries in their entirety, or to key locations approved in the ventilation plan to measure methane and oxygen concentrations and to determine whether the air is moving in the proper direction.

Statement of Facts: MSHA's accident investigators determined that the addendum (dated July 31, 2001, and approved August 13, 2001) to the mine ventilation plan which established evaluation points in the western entries of the F and G panel bleeder was not being followed. On August 22, August 29, September 5, September 12, and September 19, 2001, the operator established evaluation points without prior approval from the District Manager. The evaluation points were relocated as a result of continued deterioration of the mine roof in that area. MSHA's accident investigation team issued a non-contributory §104(a), non-S&S citation for this violation of 30 CFR 75.370(a)(1).

The internal review team examined the inspection records and ventilation plan revisions relevant to the establishment of evaluation points for the F and G panel bleeder system, and a summary follows.

On July 31, 2001, a citation was issued for failure to comply with 30 CFR 75.364(a)(2)(iii) because the tailgate side of the F Panel bleeder entries could not be traveled in its entirety for the required seven-day examination. On August 13, 2001, the District Manager approved a supplement to the mine ventilation plan that permitted the establishment of evaluation points at the inby and outby ends of the affected area, in lieu of traveling these entries. The citation was terminated the following day.

On August 22, 2001, an examiner reported that two of the three outby evaluation points were inaccessible due to deteriorating roof conditions. Also on that day, an inspector traveled to the inby set of evaluation points to investigate complaints that water had blocked access to these locations. The inspector found that the water had been pumped from the travelway. Later that day, the inspector reviewed the operator's records of weekly examinations and copied an inby evaluation point measurement into his

inspection notes. However, he did not notice that hazardous roof conditions had been recorded at the outby evaluation points and that the required examinations were incomplete.

In the following weeks, the examiner continued to report that measurements were being taken outby the approved evaluation points due to adverse roof conditions with no corrective action taken. The operator did not file a revision to the mine ventilation plan to request approval for changing the evaluation point locations and no enforcement action was taken. This area was sealed during the recovery operations following the accident.

During the review period, District 11 enforcement personnel issued 39 citations and one order for violations of 30 CFR 75.370(a)(1) at the No. 5 Mine.

Conclusion: District 11 enforcement personnel did not recognize and take appropriate enforcement action when the operator failed to examine established bleeder evaluation points at locations approved in the mine ventilation plan.

Recommendation: The District Manager should ensure that enforcement personnel thoroughly review the operator's examination records to determine compliance with applicable portions of the approved mine ventilation plan.

Enforcement of 30 CFR 75.370(d)

Intentional Changes to the Ventilation System

Requirement: Mandatory safety standard 30 CFR 75.370(d) requires that any intentional change to the ventilation system that alters the main air current or any split of the main air current in a manner that could materially affect the safety and health of the miners to be submitted to and approved by the district manager before implementation.

Mandatory safety standard 30 CFR 75.324 states requirements to be followed when intentional changes in the ventilation system are made. The preamble discussion for the 1996 final rule provides general guidance by listing several examples of ventilation changes that would materially affect the safety or health of miners, thus requiring approval of the district manager pursuant to 30 CFR 75.370(d). These examples include adding a new shaft, bringing a new fan on line, and changing the direction of air in an air course.

Mandatory safety standard 30 CFR 75.323 gives requirements for actions to be taken for excessive methane. The preamble discussion for the 1996 Final Rule states that "Operators may take those actions necessary to abate imminent dangers or hazardous conditions, or to safeguard persons and equipment. A part of this action would be a

determination of the cause of the problem. MSHA knows of no case where an operator has been prohibited from a necessary correction for a methane problem pending a plan approval. However, in cases where intentional changes are made which could materially affect the safety and health of miners, approval is required before resumption of normal work if the changes affect the information approved in the mine ventilation plan."

Statement of Facts: MSHA's accident investigators determined the operator intentionally changed the ventilation system in a manner that could materially affect the safety and health of the miners. The 5-9 Intake Shaft became part of the mine ventilation system prior to being submitted as an addendum to the mine ventilation plan for approval by the District Manager. MSHA's accident investigation team determined that this violation of 30 CFR 75.370(d) did not contribute to the accident and issued a §104(a), S&S citation.

Shaft 5-9 was projected on the mine ventilation map as a return shaft only. However, at the time of the accident, airflow was being directed into a main intake air course through Shaft 5-9. The District 11 ventilation plan approval records did not indicate that the operator had requested or received approval to permit airflow to enter the main intake air courses through Shaft 5-9.

District 11 personnel stated that, during the spring of 2001, the operator intentionally coursed intake air into the mine through Shaft 5-9 in response to problems associated with excessive methane in return air courses and problems with the Shaft 5-7 Fan stalling. Prior to this ventilation change, the operator's records of examinations listed several instances where methane concentrations in section return air courses were not being maintained below 1.0 percent. On May 25, 2001, Citation No. 7676321 was issued for failure to comply with 30 CFR 75.323(c)(2) because the operator had not effectively reduced methane in the 5 Section left return air course to less than 1.0 percent.

District 11 personnel stated that since the ventilation changes were made to gain compliance with 30 CFR 75.323, no enforcement action was taken for failure to comply with 30 CFR 75.370(d). The preamble discussion for 30 CFR 75.323 states that operators may take necessary corrective actions for methane problems pending a plan approval. However, the preamble also states that in cases where intentional changes are made which could materially affect the safety and health of miners, approval is required before resumption of normal work.

Conclusion: District 11 personnel did not take appropriate enforcement action after Shaft 5-9 was added to the mine ventilation system without approval of the District Manager. This intentional change to the ventilation system altered the main air current in a manner that could have materially affected the safety and health of the miners.

During the 1999 headquarters accountability audit, an issue was identified regarding 30 CFR 75.370(d). A major ventilation change was made when an intake shaft was added to the mine ventilation system of another mine in District 11 without prior district manager approval. Although documentation shows corrective actions taken by District 11 to address the issue, district management did not ensure these corrections were permanent solutions to the problem. The recurrence of the identical issue by allowing Shaft 5-9 to be added to the ventilation system without prior approval demonstrates district management did not follow up on the corrective actions previously taken. District management did not provide proper oversight to ensure this type of issue did not reoccur.

Corrective Action Taken: After the accident, the operator filed a request on January 25, 2002, and received approval on January 29, 2002, for a ventilation change to operate a return fan on the Shaft 5-9.

Recommendation: The District 11 Manager should ensure that specialists and inspection personnel follow guidelines outlined in the Preamble to 30 CFR 75.370(d).

Enforcement of 30 CFR 75.503

Permissible electric face equipment, maintenance

Requirement: Mandatory safety standard 30 CFR 75.503 requires mine operators to maintain in permissible condition all electric face equipment required by 30 CFR 75.500, 75.501, and 75.504 to be permissible which is taken into or used inby the last open crosscut of any such mine.

Statement of Facts: MSHA's accident investigators determined that the S&S Corporation battery-powered scoop tractor, Approval No. 2G-2831-3, Serial No. 488-1139, located in the last open crosscut in the No. 2 Entry of 4 Section was not maintained in permissible condition. The following permissibility discrepancies were observed:

1. The warning bell in the operator's deck was missing.
2. The plunger for the main controller's interlock switch was rendered inoperative because it was taped in the closed position.
3. The bolts used to fasten the cover on the circuit breaker enclosure were not of uniform length. Six bolts were 1-¼ inches long and eight bolts were 1-½ inches long.
4. Two cable entries were plugged on the circuit breaker enclosure. The plugs were not secured from loosening by spot welding or brazing, but only with seal wires.
5. None of the six cables entering the circuit breaker enclosure were properly assembled in its cable gland assembly. The cable jacket did not extend into the interior of the enclosure.

6. The main circuit breaker was set on 1,500 amperes and the approval documentation specifies 1,300 amperes.
7. The third bolt from the bottom right side of the main controller enclosure had its threads stripped out. Tape and paper were found inside the bolt hole to secure the bolt from dislodging.

This machine was examined weekly by an authorized agent of the operator. MSHA's accident investigation team issued a §104(d)(1), S&S order for this non-contributory violation of 30 CFR 75.503.

MSHA's accident investigators also determined that the A. L. Lee Corporation rockduster, Approval No. 2G-2368A-3, Serial No. 98E-6890, located in the last open crosscut between the No. 2 and No. 3 Entries, was not maintained in permissible condition. The following permissibility discrepancies were observed:

1. The main circuit breaker was set on 210 amperes and the approval documentation specifies a setting of 150 amperes.
2. The motor cable gland was not assembled correctly. The hose conduit covering the motor cable was clamped directly to the cable. There was no hose tube, gland extension or other means to clamp the cable. The motor cable was loose in its gland assembly such that it could be pulled out of the gland assembly.
3. The trailing cable installed on the machine was not as specified on the machine approval. The trailing cable was a No. 10 AWG size that was not constructed with a heavy jacket. The approval requires a No. 6 or a No. 8 AWG heavy-jacketed cable.

MSHA's accident investigation team issued an S&S citation for this non-contributory violation of 30 CFR 75.503.

The internal review team reviewed inspection reports for inspections conducted at the No. 5 Mine from June 6, 2000, to September 23, 2001. During this period, District 11 enforcement personnel issued 24 citations for violations of 30 CFR 75.503 at the No. 5 Mine. The level of enforcement used for violations of 30 CFR 75.503 was previously discussed in the section of this report entitled "Use of Sections 104(a), 104(b), 104(d), and 107(a)."

The review of inspection notes for the regular inspection that was ongoing when the accident occurred revealed that the permissible electric face equipment on 4 Section was inspected on August 13, 2001, September 10, 2001, and September 12, 2001. One non-S&S citation was issued on August 13 for a permissibility violation on the No. 42 scoop. The inspection notes indicated that methane was present in the following locations on the section: 0.6 percent at the No. 1 face; 1.7 percent at the No. 2 face; and 1.0 percent at the No. 3 face. No methane was detected outby the face areas. The inspection notes

also state that the operator de-energized power and adjusted ventilation to reduce the methane below one percent.

A District 11 inspector cited another violation of 30 CFR 75.503 on 4 Section during the investigation of an ignition that occurred September 4, 2001. This S&S citation was issued as a contributing factor to the non-injury accident. The off-side conveyor motor power cable on the continuous mining machine was torn apart for ½-inch, exposing copper leads at the motor junction box entrance gland.

Conclusion: During the regular inspection ongoing at the time of the accident, District 11 personnel conducted permissibility inspections for all required equipment on 4 Section. However, the level of enforcement used for violations of 30 CFR 75.503 was not always appropriate for the conditions described in the inspection notes. Conclusions and recommendations regarding level of enforcement, which included a discussion on permissibility violations, were previously discussed in the section of this report entitled "Use of Sections 104(a), 104(b), 104(d), and 107(a)."

Recommendation: None

Enforcement of 30 CFR 75.508

Map of electrical system

Requirement: Mandatory safety standard 30 CFR 75.508 requires, in part, that the location and the electrical rating of all stationary electric apparatus in connection with the mine electric system, including permanent cables, switchgear, rectifying substations, transformers, and permanent pumps be shown on a mine map. Any changes made in a location, electric rating, or setting shall be promptly shown on a mine map when the change is made. Such map shall be available to an authorized representative of the Secretary and to the miners in such mine.

Mandatory safety standard 30 CFR 75.508-2 requires that changes in the location, electrical rating, or setting within the mine electrical system shall be recorded on the map of such system no later than the end of the next workday following completion of such changes.

Chapter 8 of the *CMS&H General Inspection Procedures Handbook* states that a statement that all maps, plans, and postings were examined will suffice. This can be accomplished any time during the inspection.

Statement of Facts: MSHA's accident investigators determined that the electrical rating and location of all stationary electrical apparatus were not shown on the electrical mine map. None of the 26 permanent electrical pumps ranging from 3.5 horsepower to 1,000 horsepower were shown on the map. In addition, the map was not kept up-to-date and

current. The map was at least 5 months in arrears judging from the locations of the section power centers and associated vacuum breakers. MSHA's accident investigation team issued a non-S&S citation for this non-contributory violation of 30 CFR 75.508.

The internal review team determined from the inspection notes that the electrical map was last examined on July 30, 2001, during a regular inspection. The inspection notes also indicated that the map was examined on July 1, 2001 (electrical spot inspection), June 5, 2001 (regular inspection), and March 19, 2001 (regular inspection). No citation for a violation of 30 CFR 75.508 was issued during any of these recent inspections. One citation was issued during the review period. This citation was issued on June 13, 2000, during an electrical spot inspection.

During interviews with the review team, enforcement personnel indicated that they understood the requirements of 30 CFR 75.508. The inspectors stated they would check the electrical map usually one time during a regular inspection but did not conduct follow-up inspections to ensure maps were being continually updated. Inspectors who were assigned to inspect the No. 5 Mine stated the company identified the permanent pump locations on the map with pushpins. However, the internal review team examined the electrical map posted at the mine at the time of the accident and did not find evidence that pushpins had been used.

Conclusion: District 11 personnel did not recognize deficiencies and take appropriate enforcement action when the operator of the No. 5 Mine failed to keep the map of the mine electrical system up-to-date for approximately five months prior to the accident.

Recommendation: The Administrator should evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve and clarify note keeping procedures to ensure that required maps are thoroughly examined and documented during inspections.

Enforcement of 30 CFR 75.1202

Mine map – temporary notations, revisions, and supplements

Requirement: Mandatory safety standard 30 CFR 75.1200 requires the mine operator to have an accurate and up-to-date map of the mine and lists required items to be included on the mine map.

Mandatory safety standard 30 CFR 75.1202 requires the map to be kept up-to-date by temporary notations and to be revised and supplemented at intervals prescribed by the Secretary.

Mandatory safety standard 30 CFR 75.1202-1 gives requirements for temporary notations, revisions, and supplements and specifies that mine maps shall be revised and

supplemented at intervals of not more than 6 months. The regulation also specifies that the temporary notations shall include permanent stoppings.

Mandatory safety standard 30 CFR 75.372(c) allows the mine map required by section 30 CFR 75.1200 to be used to satisfy the requirements for the ventilation map, provided that all the required information is in contained on the map.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* requires enforcement personnel to determine that mine maps are kept up-to-date as required and each working place is accurately shown during each regular inspection.

Statement of Facts: MSHA's accident investigators determined that the mine map was not being kept up-to-date by temporary notations. The permanent ventilation controls constructed between the belt and intake air courses of the 1 East area were not depicted on the mine map. MSHA's accident investigation team issued a §104(a), non-S&S citation for this non-contributory violation of 30 CFR 75. 1202-1(b)(3).

On April 27, 2001, District 11 received mine maps of the No. 5 Mine from the operator showing information required by 30 CFR 75.372 and 30 CFR 75.1200. District 11 personnel completed a review of the maps for compliance with 30 CFR 75.372 and 75.1200 on May 17, 2001, and no deficiencies were identified. However, the locations of permanent stoppings that separated the 1-East Mains belt and track intake air courses were not shown at several locations. This error was also present on the maps filed in 2000. However, these stoppings, which were built prior to and maintained throughout the review period, were shown on the 1999 map. A survey of the ventilation controls after the accident confirmed that the controls were intact.

Conclusion: District 11 enforcement personnel did not recognize and take appropriate enforcement action regarding inaccurate notations on required mine maps. The locations of certain ventilation controls, including permanent stoppings, were not shown on the mine ventilation map.

Recommendation: The District 11 Manager should ensure that enforcement personnel follow established inspection procedures regarding the review of mine maps. District 11 should implement a system to ensure that any mine maps submitted to the district contain all required information and are complete and up-to-date.

Enforcement of 30 CFR 75.1702

Smoking; prohibition

Requirement: Mandatory safety standard 30 CFR 75.1702 states that no person shall smoke, carry smoking materials, matches, or lighters underground, or smoke in or around oil houses, explosives magazines, or other surface areas where such practice

may cause a fire or explosion. The operator shall institute a program, approved by the Secretary, to insure that any person entering the underground area of the mine does not carry smoking materials, matches, or lighters.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* directs inspectors to determine whether an adequate search program exists by observing searches, reviewing the records, and interviewing miners.

Statement of Facts: The accident investigation team determined that no record existed to indicate that all persons had been searched for smoking articles at least weekly, at random intervals, for the period of July 28, 2001, through September 14, 2001. MSHA's accident investigation team issued a non-S&S citation for this non-contributory violation of 30 CFR 75.1702.

On April 19, 2001, the District Manager approved the program for the No. 5 Mine that was in effect at the time of the accident. The program required that a systematic search for smoking articles be conducted at least weekly at irregular intervals and that a record of the searches be kept.

A review of inspection notes by the internal review team revealed that no documentation was provided to indicate that the records of searches for smoking articles were examined during two of the four completed regular inspections. The inspection notes for the second (September to December 2000) and fourth (March to June 2001) regular inspections did not document inspection of these records. These records had not yet been examined during the most recent inspection, which was ongoing at the time of the accident.

Conclusion: District 11 enforcement personnel did not detect the operator's failure to record searches for smoking articles during the period of July 28, 2001, through September 14, 2001. However, the inspector who was conducting the regular inspection ongoing at the time of the accident had sufficient time remaining to examine the record.

District 11 enforcement personnel did not follow inspection procedures when they did not always document in the inspection notes that the operator's records of searches for smoking articles were inspected. During the regular inspections conducted from September to December 2000, and from March to June 2001, no documentation was present in the inspection notes to indicate that these records had been inspected.

The March to June 2001 regular inspection report was reviewed by both the supervisor and the second-level manager who should have identified and corrected the deficiency.

Recommendation: The District 11 Manager should ensure that report and paperwork reviews highlight potential problems with examinations and record keeping.

Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's required records.

The Administrator should also evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve and clarify notekeeping procedures to ensure that record books are not overlooked during inspections.

Enforcement of 30 CFR 75.1715

Identification check system

Requirement: Mandatory safety standard 30 CFR 75.1715 states each operator of a coal mine shall establish a check-in and check-out system which will provide positive identification of every person underground, and will provide an accurate record of the persons in a mine kept on the surface in a place chosen to minimize the danger of destruction by fire or other hazard. Such record must bear a number identical to an identification check that is securely fastened to the lamp belt worn by the person underground. The identification check shall be made of a rust resistant metal of not less than 16 gauge.

Statement of Facts: MSHA's accident investigators determined that the check-in and check-out system at the mine did not provide positive identification and an accurate record of persons underground. Time clocks were being used for payroll and attendance tracking purposes. The miners clocked-in at the beginning of the shift and clocked-out at the end of the shift. Underground personnel who worked on the surface area during all or part of the shift were logged-in as being underground for the entire shift. MSHA's accident investigation team issued a non-S&S citation for this non-contributory violation of 30 CFR 75.1715.

Each miner at the No. 5 Mine is issued a card with a number for his personal identification. The check-out board is a separate board from the check-in board. The card is removed from the check-out board, passed by an electronic scanner that records the identification number and the time, and is placed on the check-in board. The information stored from the scanner is stored on a computer at a location remote from the system. The check-out is the reverse process. If the scanner is down the system is still functional by the movement of the identification card from the in board to the out board or vice versa. The belt tags bear the miner's social security number and the check card lists a different number to protect the miner's social security number. Lists are kept for cross-reference of the card numbers to the miners' name.

During interviews with the internal review team, District 11 personnel stated that they had a general knowledge of the check-in check-out system at the No. 5 Mine.

Conclusion: The internal review team determined that District 11 personnel understood the requirements of 30 CFR 75.1715. There was no evidence that District 11 personnel observed a violation of this standard and failed to take appropriate enforcement action.

Recommendation: None

Plan Approvals

Roof Control Plan - Review and Approval

Requirement: Mandatory safety standard 30 CFR 75.220(a)(1) requires each operator to develop and follow a roof control plan, approved by the District Manager, that is suitable to the prevailing geological conditions and the mining system to be used at the mine. Additional measures shall be taken to protect persons if unusual hazards are encountered.

Mandatory safety standard 30 CFR 75.221 specifies information to be included in the roof control plan.

Mandatory safety standard 30 CFR 75.222 sets forth the criteria that shall be considered on a mine-by-mine basis in the formulation and approval of roof control plans and revisions to such plans. This section states that the district manager may approve plans that do not conform to the applicable criteria provided that effective control of the roof, face and ribs can be maintained. The district manager may also require additional measures in roof control plans not addressed in sections 30 CFR 75.221 or 30 CFR 75.222.

Mandatory safety standard 30 CFR 75.223(d) requires the roof control plan for each mine to be reviewed every 6 months by an authorized representative of the Secretary.

Mandatory safety standard 30 CFR 75.209 requires the use of Automated Temporary Roof Support (ATRS) systems with roof bolting machines. The *MSHA Program Policy Manual* states the use of an ATRS is not necessary when the face is within five feet of longwall supports.

Mandatory safety standard 30 CFR 75.210(b) requires, in part, when manually installing temporary supports, all temporary supports shall be set so that the person installing the supports remains between the temporary support being set and two other supports which shall be no more than 5 feet from the support being installed.

Paragraph (d) of 30 CFR 75.210 requires once temporary supports have been installed, work or travel beyond permanent roof support shall be done between temporary supports and the nearest permanent support or between other temporary supports.

Chapter 3 of the *CMS&H General Inspection Procedures Handbook* states that during every regular inspection at an underground coal mine, the inspector shall determine that all approved plans are being followed, are up-to-date, and are appropriate.

Statement of Facts: District 11 had a formal standard operating procedure (SOP) for the review and approval of roof control plans. Specialists reviewed new plans and supplements and conducted 6-month reviews of existing plans. The SOP required a tracking sheet be used for plan and supplement reviews to ensure all pertinent information was considered. The tracking sheet also served as a memorandum for communicating the specialist's conclusions regarding the adequacy of the plan or supplement. This sheet was also used during 6-month reviews of the plan.

During reviews, specialists were to consider the accident and injury experience, history of unintentional roof falls, violation history as it relates to roof control, whether plan criteria were properly addressed, input from field office supervisors and inspectors, and information reported on plan review forms (MSHA Form 2000-204). Specialists also reviewed any information received from other technical service groups or miners' representatives. For producing mines, the specialists conducted in-mine reviews of the mining conditions. The roof control supervisor and the Assistant District Manager reviewed the specialist's recommendation before forwarding it to the District Manager. The District Manger then provided correspondence to the mine operator as to the results of the review.

The District Manager approved the roof control plan for the No. 5 Mine on May 10, 2000. Three supplements to this plan were submitted and approved prior to the accident. District 11 specialists reviewed the plan on November 20, 2000, and May 22, 2001. Following both of these reviews, the District Manager sent letters of continuing approval to the operator. Regular inspectors conducted plan reviews during their regular inspections and completed a plan review form for each review.

Conclusion: The internal review team determined that District 11 personnel followed procedures outlined in the District's SOP in approving the roof control plan for the No. 5 Mine. Specialists reviewed the roof control plan at least every 6 months and considered the mine history and input from field office supervisors and inspectors and representatives of miners. However, the internal review team identified several deficiencies in the approved roof control plan for the No. 5 Mine.

Several items in the approved plan conflicted with the mandatory regulations.

- Sketch No. 2 on page 19 showed the setting of temporary supports and the use of the continuous mining machine ripper head as a temporary support. When installing temporary support No. 2 the person would not remain between the support being set and two other supports no more than 5 feet away as required by 30 CFR 75.210(b). Note 4 stated that the "curtain line is advanced to [temporary support No. 3] from the wide side of the entry." The route of travel to advance the curtain line would not be between temporary supports as required by 30 CFR 75.210(d).

- Page 27 of the plan addressed Longwall Face Shield Withdrawal. The note at bottom of Page 27 allowed the use of a roof-bolting machine without an ATRS when the distance from the shield canopy tip to the face exceeded 5 feet. This conflicts with 30 CFR 75.209 and MSHA policy. The *MSHA Program Policy Manual* states the use of an ATRS is not necessary when the face is within five feet of longwall supports.

Some required information was not included in the plan.

- The installed torque ranges for the resin-assisted point anchor type bolts identified on page 5 of the plan were not listed. Section 30 CFR 75.221(a)(9)(iii) requires the plan to include the installed torque or tension range for tensioned bolts.

- The maximum distance the ATRS can be set beyond the last row of permanent supports as required by 30 CFR 75.221(a)(6) was not included in the plan.

The internal review team also found several items needing clarification or additional information.

- The plan permitted maximum mining widths of 24 feet in entries and crosscuts however they were typically mined 20 to 21 feet wide. The plan should have been representative of actual mining widths and suitable to mining conditions.

- The method to determine the thickness of the strata interval between the mine roof and the main roof described on page 9 should have been included in the plan.

- The term "longwall gate entries" on page 9, Item c, needed clarified to determine the specific roof support methods for longwall tailgate entries.

Corrective Action Taken: On June 17, 2002, the District Manager requested that the operator revise the roof control plan. The District Manager approved a revised plan on August 21, 2002, which included the following changes:

- The revised plan specified the distance from the shield canopy tip to the face will be 5 feet or less when the bolting machine does not have an ATRS.

- The installed torque ranges for resin-assisted point anchor type roof bolts were added to the plan.

- ATRS positioning requirements were added specifying the maximum distance the ATRS can be set beyond the last row of permanent supports.

- The maximum width of entries and crosscuts was reduced to 22 feet except for longwall setup entry development.

- Specific methods to support areas of adverse roof and the tailgate entry of subsequent longwall panels were included in the plan.

Recommendation: The District Manager should correct the remaining deficiency in the roof control plan which relates to the method of setting temporary support as described on page 20 of the current plan. The Administrator should ensure that all roof control plans in District 11 do not contain similar deficiencies.

Mine Ventilation Plan – Review and Approval

Requirement: Mandatory safety standard 30 CFR 75.370(a) requires that each operator develop and follow a ventilation plan designed to control methane and respirable dust and that the plan be suitable to the conditions and mining system at the mine. The ventilation plan is required to consist of two parts; the plan content prescribed in 30 CFR 75.371 and the ventilation map with information prescribed in 30 CFR 75.372. Only that portion of the map that contains information required by 30 CFR 75.371 is subject to approval by the district manager.

Paragraph (g) of 30 CFR 75.370 requires the plan to be reviewed by an authorized representative of the Secretary at least every 6 months to assure that the plan is suitable to current conditions in the mine.

The *MSHA Program Policy Manual* outlines basic principles to be applied in administering each district's mine plan approval responsibilities.

The *CMS&H Mine Ventilation Plan Approval Procedures Handbook, PH92-V6* issued on May 27, 1992, established guidelines and instructions for evaluating and processing mine ventilation plans. The handbook states that the purpose of mine ventilation plans is to define minimum ventilation requirements and dust controls for normal conditions.

Paragraph (b) of 30 CFR 75.372 requires the mine ventilation map to show the locations of all ventilation controls, including permanent stoppings, and the direction and quantity of air entering and leaving each split.

The *CMS&H General Inspection Procedures Handbook* requires that during every regular inspection at an underground coal mine, the inspector shall determine that all approved plans are being followed, are up-to-date, and are appropriate.

Statement of Facts: District 11 had a formal standard operating procedure (SOP) for the review and approval of ventilation plans. The supervisor and the Assistant District Manager review the specialist's recommendation before forwarding it to the District Manager. After the review, the District Manager sends written correspondence to the operator regarding the results of the review.

On January 5, 2001, the District Manager issued a letter to the operator which listed deficiencies identified during a 6-month ventilation plan review. The letter also requested that the plan be consolidated with any applicable approved supplements and specified a reasonable time for the operator to submit the revised plan provisions to the District. A consolidated plan, including the requested revisions, was submitted on January 29, 2001. A signed document, dated January 29, 2001, from the mine safety committee indicated that they had reviewed the revised plan and had no further comments or questions. The revised material was then reviewed by the ventilation group and subsequently approved by the District Manager on February 28, 2001. A mine ventilation map was filed April 27, 2001. A review of the map was completed May 17, 2001, and no deficiencies were identified by District 11 personnel.

Five additional supplements to the ventilation plan were approved by August 2001. During the next 6-month review, the District determined that the ventilation plan contained both current and outdated supplements. In a letter to the operator dated August 29, 2001, the District Manager requested that the plan be updated, incorporating all applicable supplements. The operator submitted the requested material, which was received September 18, 2001, and was still being reviewed at the time of the accident.

The approved plan required a minimum of 15,000 cfm in the last open crosscut. However, the plan required a minimum airflow of 20,000-25,000 cfm (depending on the depth of cut) at the faces where coal was being cut, mined, or loaded. Airflow measurements and methane concentrations recorded in inspector's notes and the operator's record books indicate that a minimum of 15,000 cfm in the last open crosscut would not be sufficient to maintain methane levels on the working section below one percent. Although the operator typically maintained airflow well above the minimum requirement, there were numerous occasions where even higher quantities were required to adequately control methane concentrations. Of 36 occasions where inspectors encountered methane concentrations above one percent, 28 were on developing sections.

District 11 personnel stated that they were not aware of any recent face methane liberation studies to determine the actual minimum airflow that would be needed to control methane under normal mining conditions. Nevertheless, the mine examiner's

preshift report for 4 Section on September 23, 2001, indicated that sufficient airflow was being provided to control methane in the working places. At that time, 69,970 cfm and 72,565 cfm were measured in the left and right last open crosscuts outby the working faces, respectively, with a maximum of 0.6 percent methane detected in the working places.

Some required airflow quantities were not shown on the mine ventilation map, filed pursuant to 30 CFR 75.372. In most cases, airflow in track (primary escapeway) and belt intake splits was shown as a single combined quantity where air entered the splits. No measurements were shown where air left these splits. Airflow quantities in several return splits also were not shown, including the following locations: leaving the Submains B right and left return splits, leaving the 2-East Mains left return split (Longwall and 1 Section alternate escapeway), and at the inby end of the longwall tailgate travelway. Also, an airflow quantity was not shown for the southeast bleeder split where it entered the return air course at the inby end of the 1-Southeast gate entries.

Conclusion: The internal review team determined that all applicable requirements of 30 CFR 75.371 were addressed in the ventilation plan and supplements approved February 28, 2001. However, District 11 personnel did not recognize some deficiencies in the No. 5 Mine ventilation plan during this review, including:

1. Although the operator typically maintained airflow above the minimum requirement, the minimum volume of air required in the plan for the last open crosscut was not sufficient to control methane during normal mining conditions.

2. Required air measurements and ventilation controls were not properly shown at several locations on the mine ventilation map required by 30 CFR 75.372.

Recommendation: The deficiencies in the approved ventilation plan should be addressed by District 11. Available resources, which may include Technical Support, should be considered when deficiencies are identified during future plan reviews.

Management Issues

Accountability Program

Requirement: Volume III, Chapter 900 of the *Administrative Policy and Procedures Manual* sets forth requirements for the MSHA Accountability Program. The purpose of the program is to provide reasonable assurance that policies and procedures are being complied with consistently throughout the Agency. MSHA managers are required to implement and maintain an accountability program consisting of internal reviews, identification and resolution of issues, and documentation of findings.

The *Accountability Program Handbook* provides administrators and district managers with policy and guidelines for evaluating the quality of enforcement activities at all levels. It requires reviews of field and headquarters activities to provide reasonable assurance that policies and procedures are being complied with consistently throughout the Agency.

Statement of Facts: A headquarters accountability review was conducted in District 11 from February 22 through March 5, 1999. This review addressed the following areas: Coal Inspections, Coal Respirable Dust, Special Investigations, Coal Plan Approvals, Supervisory Evaluations, Records Management, Property Management, and Personal Management. The accountability review consisted of two site visits. There were a total of 28 issues identified, five of which were considered to be significant.

The headquarters accountability review report indicated that District 11 had recently completed its own district accountability review. The headquarters review identified a number of the same issues that were found during the previous District 11 review.

Three of the issues identified during the 1999 headquarters accountability review were similar to issues identified during this internal review. The common issues were:

- The level of enforcement was not appropriate and consistent with the information documented in the body of citations and the inspectors' notes.

- The abatement time for citations was too long and outstanding citations were not followed up in a timely manner.

- A major ventilation change was made when an intake shaft was added to the mine ventilation system of another mine in District 11 without prior district manager approval. The internal review revealed that Shaft 5-9 was added to the No. 5 Mine ventilation system without prior approval.

The headquarters accountability coordinator accepted the District Manager's proposed corrective actions in a memorandum dated November 8, 1999 (CMS&H Memo No. HQ-99-79 MO). During an interview with the internal review team, the District Manager indicated that corrective actions were taken to address the issues identified during the 1999 headquarters accountability review. The District Manager stated that each issue was addressed individually and corrective actions were discussed in staff meetings with supervisors and employees.

Conclusion: During interviews with the internal review team, District 11 management stated that corrective actions were taken to address issues identified during the 1999 headquarters accountability review. However, many of the issues identified during the 1999 accountability review were also identified during this internal review. The corrective actions implemented by District 11 management were not sufficient to

prevent recurrence of some issues. Headquarters and district management did not ensure that substantive corrective actions were permanent in nature and effectively addressed the issues.

The accountability program is aimed at determining if policies and procedures are being implemented and followed. The current program is process oriented and does not adequately evaluate decision-making on the part of management, enforcement consistency nationwide, the root cause of issues, or adequately follow-up to determine if corrective actions have been effective.

Corrective Action Taken: The Administrator has formed a committee to revise the current accountability program and develop a more hands-on peer review program at both the district and national level. The committee was instructed to develop a program to focus less on documentation and process while placing emphasis on root causes of issues with permanent system corrections. The goal of the program is to identify root causes of issues within CMS&H, prevent reoccurrence, and improve enforcement consistency nationwide. The committee was instructed to submit a timeline and action plan to the Administrator by February 14, 2003.

Recommendation: The revised program should include provisions for follow-up when issues are identified to ensure that effective corrective actions have been implemented.

Training and Development of Supervisors

Requirement: Section 505 of the Mine Act provides that, to the maximum extent feasible, in the selection of persons for appointment as mine inspectors, no person shall be so selected unless he or she has the basic qualification of at least five years practical mining experience.

Section 505 also states that the Secretary shall adequately train mine inspectors. This section further states that the Secretary shall work with appropriate educational institutions, operators, and representatives of miners in developing and maintaining adequate programs for the training and continuing education of persons, particularly inspectors.

Statement of Facts: The management team responsible for supervising regular inspections in District 11 included the District Manager, the Assistant District Manager, and three field office supervisors. Two supervisors were stationed in the Hueytown field office and one in the Jasper field office. These five employees had an average experience with the Agency of over 19 years. At the time of the accident, the three field office supervisors had an average of 15 months experience in that position. The supervisor who had responsibility for the No. 5 Mine had approximately 15 months experience as a field office supervisor. The Assistant District Manager had been in his

position for less than 2 years. The District Manager had been in his position for about 6 years.

Following their selection, each supervisor received the required Department of Labor core training for supervisors. This training covered topics such as communication skills, the performance management system, and Equal Employment Opportunity. The training did not address the technical aspects of supervising compliance specialists.

The internal review team identified several procedural errors made by District 11 personnel. These errors were related to inspection procedures, use of enforcement tools, and enforcement of mandatory safety standards. In some cases, the errors resulted from an incomplete or inaccurate understanding of enforcement policies and procedures by inspectors and specialists.

The internal review team determined that, in some instances, supervisors did not have systems in place to ensure conformance with MSHA policies and procedures. For example, the Hueytown field office supervisors did not have a system to ensure that appropriate enforcement action was taken when rock dust surveys were out of compliance with 30 CFR 75.403. Likewise, the supervisors did not have a system for ensuring that inspectors followed up on violations on the termination due dates.

The internal review team determined that District 11 management systems were not always effective. Reviews conducted by the supervisor and the Assistant District Manager did not identify and correct inspection deficiencies that were documented in inspection reports.

The internal review team determined that the leadership and oversight provided by District 11 supervisors and managers in a several areas were not effective. The number and nature of the weaknesses involving enforcement activities at the No. 5 Mine points to ineffective supervision of the inspectors in the Hueytown field office.

During his interview, the District Manager stated that there had been a significant turnover in supervisors and managers in the District. He indicated that this turnover resulted in a very inexperienced management team in District 11.

Conclusion: With the exception of the District Manager, the manager and supervisors who were responsible for supervising regular inspections in District 11 had less than two-years experience in their current jobs when the accident occurred. This lack of experience may have led to shortcomings in the leadership and oversight provided by District 11 supervisors and managers.

Corrective Action Taken: The Administrator has issued a memorandum directing all District Managers to implement a mentoring program for new supervisors and inspector trainees. The memorandum contained guidelines for a mentoring program

related to inspector training paths. The guidelines are designed to ensure that each newly hired inspector is capable of performing the critical work of the Agency upon completion of their initial training period. The memorandum also contained a suggested mentoring program for supervisors to ensure they received adequate training in basic supervisory and management skills.

Recommendation: None.

Supervisory and Second-level Reviews

Requirement: The *CMS&H Supervisor's Handbook* states that to ensure that inspections and investigations are conducted according to Agency policies and procedures, and that inspectors are properly enforcing the provisions of the Mine Act, first line supervisors must review the work performed by their inspectors and specialists. This is accomplished by reviewing their activities, accompanying them on these activities, and rotating mine assignments.

Supervisors are responsible for reviewing work products generated by the inspectors under their supervision. The supervisor is required to review the documentation for at least one complete major inspection activity for each inspector every six months. In addition, supervisors must review a representative number of other inspection reports, citations and orders, and appropriate notes. The supervisor must also accompany each inspector or specialist at least two days during each six-month period on one or more major inspection activities.

The handbook also states that second-level managers (i.e., assistant district managers) shall oversee supervisory level reviews and accompanied activities conducted by their first-line supervisors. Each second-level manager shall review at least one Field Activity Review (FAR) conducted by each supervisor and one accompanied activity by each supervisor every 6 months.

Statement of Facts: The internal review team reviewed the supervisory and second-level reviews for inspection activities at the No. 5 Mine.

One supervisory review was conducted August 8, 2001, during a section 103(i) spot inspection (Event No. 4291735) at the No. 5 Mine. A review of the supervisor's notes indicated that the supervisor traveled extensive areas of the No. 5 Mine during this activity. The travels were well documented. A portion of this inspection was used to complete the requirements of a respirable dust technical investigation (Event No. 4291736). However, the inspector conducted both events concurrently. This procedural issue was not identified by the inspection supervisor during his review of the inspector's activities or during his review of the inspection report.

The Assistant District Manager conducted a second-level review of the regular inspection (Event No. 4289661) at the No. 5 Mine. The inspection began March 30, 2001, and ended June 21, 2001. A memorandum, dated November 6, 2001, from the Assistant District Manager to the inspection supervisor indicated that timely abatement, degree of enforcement, inspection notekeeping regarding why a citation was vacated, and reasons for gravity determinations were issues of concern during this second-level review.

The internal review team also reviewed the same regular inspection report and the following additional issues were identified.

- The inspection notes did not indicate records of fire drills or searches for smoking articles were examined. In addition, on 32 occasions, there was no documentation to indicate that the inspector examined the preshift and on-shift records prior to going underground.

- There was insufficient documentation in the inspection notes to indicate that all outby electrical installations were inspected.

- Excessive concentrations of methane were documented in the inspection notes. On May 31, 2001, the No. 1 longwall tailgate entry was inspected and upon entering the regulator the inspector immediately encountered 1.0 percent methane. The methane increased to 1.5 percent up to the longwall face. At the longwall tailgate the inspector conducted a methane test toward the gob about ten feet to mid-shield and measured 6.7 percent. He determined that most of the methane was coming from the gob, not the face. The operator was informed of the inspector's findings and what they needed to do. The inspector issued a S&S citation for accumulations of float coal dust near the longwall tailgate, but did not take enforcement action for the explosive concentration of methane.

These issues were not identified in the Assistant District Manager's second-level review memorandum, dated November 6, 2001.

Conclusion: The internal review team determined that both the supervisory and second level reviews for inspection activities at the No. 5 Mine were not adequate. These reviews did not identify several procedural and enforcement deficiencies documented in the No. 5 Mine inspection reports.

Recommendation: The District 11 Manager should provide adequate oversight to ensure the requirements of the *CMS&H Supervisor's Handbook* are followed. This system should be routinely evaluated through quarterly reviews.

Conflict of Interest

Requirement: Chapter 2 of the *CMS&H General Inspection Procedures Handbook* provides that all personnel must have at least 2 years current employment with MSHA prior to conducting assignments at mines where they were formerly employed.

The Conflict of Interest regulation which governs MSHA employees (5 CFR 5201.105), and supplements the DOL regulation (5 CFR Section(s) 5201.101, 5201.102, and 5201.103), and the Executive branch-wide regulation on this subject (5 CFR 2640), prohibits MSHA employees, their spouses, and minor children, from having a financial interest in any company or other person engaged in mining activities subject to the Mine Act. The regulations also set forth the guidelines for granting a waiver to such a disqualification based, in part, on the contents of a statement of employment and financial interests (5 CFR 2640.301(a)(1). MSHA enforcement personnel are required to file these statements annually.

Statement of Facts: The internal review team determined that two field office supervisors, four inspectors, and one inspector trainee were previously employed by Jim Walter Resources, Inc. At the time of the review, District 11 inspection personnel interviewed did not have any relatives employed by Jim Walter Resources.

Information provided by the MSHA Deputy Ethics Counselor revealed that all required District 11 employees had filed employment and financial interest statements since the District was established.

One of the inspectors previously employed at the JWR No. 4 Mine was hired by MSHA on November 22, 1998. Records indicated that the inspector began inspection activities at the No. 4 Mine on May 30, 2000, and conducted eight separate inspection activities prior to the end of the two-year period.

Conclusion: It is not unusual in mining regions for MSHA to employ inspectors with previous experience in local mining operations. In one case, District 11 did not comply with the MSHA policy regarding assignment of inspectors to mines where they had been previously employed.

Recommendation: The District Manager should take steps to ensure that new employees have worked with MSHA for at least two years prior to conducting assignments at mines where they were formerly employed. Compliance with this requirement should be evaluated through periodic district reviews.

General Conclusions

Through enforcement of the Mine Act, District 11 personnel recognized numerous hazardous conditions during their inspections of the No. 5 Mine and required the mine operator to take corrective actions in an effort to promote a safe and healthy work environment for the miners. Despite the efforts of District 11 personnel, the accident occurred on September 23, 2001, because the operator failed to comply with fundamental mandatory safety standards.

The internal review team identified several deficiencies in MSHA's performance at the No. 5 Mine. With system changes to the inspection process, effective oversight by supervision and management, improvements to the ACRI and Accountability Programs, and effective mentoring of personnel, the internal review team believes that District 11 employees will fully exercise their authority and responsibility to enforce safety and health standards at the No. 5 Mine, as well as at all other mines in District 11.

Signature Page

This report is submitted in response to your request that the Directorate of Program Evaluation and Information Resources conduct an internal review of MSHA's actions at the Jim Walter Resources, Inc., No. 5 Mine.

Respectfully submitted,

ORIGINAL SIGNED BY

William A. Dupree, Jr.
Assistant District Manager
CMS&H District 5

ORIGINAL SIGNED BY

James C. Hager
Supervisory Coal Mine Inspector
CMS&H District 6

ORIGINAL SIGNED BY

Robert G. Hardman
Staff Assistant
CMS&H District 4

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Mark A. Odum
Supervisory Roof Control Specialist
CMS&H District 8

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Robert L. Phillips
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CMS&H District 10

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George M. Fesak
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Keith E. Bell
Trial Attorney, Mine Safety & Health Division
Office of the Solicitor

Approved by:

ORIGINAL SIGNED BY

Dave D. Lauriski
Assistant Secretary of Labor
Mine Safety and Health Administration

Appendix A
Persons Interviewed or Providing Information

District 11 Personnel

David Allen	CMS&H Inspector Trainee
Mary Jo Bishop	CMS&H Inspector
James Robert Boyle, Jr.	Mining Engineer (Ventilation)
Johnny P. Calhoun	Supervisory CMS&H Inspector (Ventilation)
Charles Carpenter	CMS&H Inspector (Electrical)
John Church	CMS&H Inspector (Electrical)
Sheila Dawkins	CMS&H Inspector (Health)
Raymond C. Dorton, Jr.	CMS&H Inspector (Roof Control)
Kenneth W. Ely	Supervisory CMS&H Inspector
Terry G. Gaither	Conference/Litigation Representative
Gary D. Greer	CMS&H Inspector
Stephen P. Harrison	Mining Engineer (Ventilation)
Robert E. Kuykendall	CMS&H Inspector
Charles T. Langley	Supervisory CMS&H Inspector
Judy McCormick	Supervisory CMS&H Inspector (Health)
Edward E. Nicholson	CMS&H Inspector
Doniece Schlick	Supervisory CMS&H Inspector
Jacky Shubert	CMS&H Inspector
John R. Smoot	CMS&H Inspector
John T. Terpo	CMS&H Inspector/Accident Investigator
Jarvis F. Westery	CMS&H Inspector
Gary Wirth	Supervisory CMS&H Inspector (Staff Assistant)
Michael K. Woodrome	Assistant District Manager
Frank C. Young, Jr.	District Manager

Appendix A *(cont.)*

Headquarters Personnel

Ray McKinney	Administrator for CMS&H
Kevin G. Stricklin	Acting Deputy Administrator, CMS&H
Kenneth A. Murray	Special Assistant to the Administrator, CMS&H
John F. Langton	Management Officer, CMS&H
Jeffrey Duncan	Director of Educational Policy and Development
Kevin Burns	Director of Small Mines Program
Keith Watson	Deputy Director, Assessments
Sandra L. Yamamoto	Chief, Technical Compliance & Investigation Division
William Crocco	Accident Investigation Program Manager

National Mine Health and Safety Academy

Richard E. McDorman	Training Instructor
David S. Mandeville	Training Instructor

Technical Support

John E. Urosek	Chief, Ventilation Division
Steven J. Luzik	Chief, Approval and Certification Center
Clete R. Stephan	Principal Mining Engineer
Dennis A. Beiter	Supervisory Mining Engineer

Office of the Solicitor

William Lawson	Senior Trial Attorney

Appendix B
CMS&H Administrator's Response

The following is a text-only copy of the memorandum detailing the response to the Internal Review Report from the Administrator for CMS&H.

CMS&H Memo No. HQ-03-012-A (PRT-50)

MEMORANDUM FOR DAVE D. LAURISKI
Assistant Secretary of Labor for
Mine Safety and Health Administration

FROM: RAY McKINNEY
Administrator for
Coal Mine Safety and Health

SUBJECT: Coal Mine Safety and Health Response to Internal Review of MSHA's Actions at the Jim Walter Resources, Inc., No. 5 Mine

This responds to your memorandum dated January 8, 2003, concerning the recommendations of the report of internal review of MSHA's actions at the Jim Walter Resources, Inc. (JWR), No. 5 Mine. You requested that Coal Mine Safety and Health (CMS&H) respond to the report's recommendations and indicate our plans for further action where necessary. Following is our overall response and an outline of the major actions planned by CMS&H. The report of internal review will also be shared with Metal and Nonmetal Mine Safety and Health.

The key findings in the report of internal review provide a sound basis to further strengthen the overall CMS&H program. Accordingly, we plan to implement a number of the recommendations on a national basis. Some of these recommendations are currently being implemented including ensuring consistency and the appropriate implementation of the Alternative Case Resolution Initiative (ACRI) program by providing national oversight. The implementation of the Emergency Temporary Standard (ETS) for Emergency Evacuations will serve as the corrective action for the issue concerning fire fighting and evacuation during mine emergencies.

With regard to our inspection and enforcement responsibilities, a number of proposals are underway. I have issued guidance for inspection personnel to ensure that 103(i) inspection activities are conducted separate and apart from other inspection activities. A directive has been sent out to the district managers concerning the inspector's evaluation of compliance with the requirements for conducting workplace examinations.

In the management arena, my office will conduct quarterly performance reviews of all managers and supervisors in District 11 for a period of at least one year. Ultimately, I can assure you that CMS&H will have an enforcement and compliance assistance program with a high degree of professionalism and will demonstrate an effective and efficient use of resources throughout our Agency.

The effectiveness of the CMS&H program will also benefit from similar constructive reviews in a program evaluation context. Critically examining the day-to-day activities of the program is inherently healthy and need not be limited to the post-accident environment. I have selected a committee to revise the current accountability program to make it less process oriented. The revised program will place emphasis on issues that directly impact our mission accomplishment and enact permanent system corrections. The goal of the program will be to identify root causes of issues, prevent recurrence, and improve program consistency throughout the districts.

We also plan to enhance the information available to inspectors on their laptop computers. CMS&H will evaluate the feasibility of developing versions of handbooks that will be automatically updated and easily accessible on the inspector laptop computers. This initiative will enhance the inspector's knowledge base and give them the best information tools available to assist in their work.

Following are the major initiatives planned by CMS&H in response to the report of internal review:

Inform all Coal Mine Safety and Health enforcement personnel of the contents of the report of internal review.

Initially, the report will be discussed with District 11 personnel.

I will meet with senior CMS&H managers and key staff and conduct an in-depth review of the report. Thereafter, it will be made available to all CMS&H personnel at district staff meetings. A member of the internal review team, and the respective District Manager will collectively hold a meeting and discuss the report, emphasizing the significance of the findings.

Gain consistency in the proper level of enforcement concerning the appropriate use of Sections 104(a), 104(b), 104(d), and 107(a).

I have formed a committee to revise the current accountability program and develop a hands-on peer review program. The committee was instructed to submit a time line and action plan to the Administrator by February 14, 2003.

In April and November of 2002, CMS&H issued directives to enhance enforcement consistency in the agency. In order to reemphasize the directives and improve our performance, related to consistency in District 11, an intense training session will be held with all District 11 enforcement personnel. This session will be conducted by an instructor from the National Mine Academy and will be completed by March 4, 2003.

Gain consistency in enforcement actions in District 11 through training and uniform application of the ACRI program.

Consistency will continually be enhanced through our ACRI program. I have developed the position of Special Assistant on my staff and he will provide national oversight for the ACRI program. A major responsibility of the Special Assistant will be to evaluate and work with the coal districts to gain consistency in the interpretation and implementation of the ACRI program. In addition, regularly scheduled meetings will be held with all district Conference/Litigation Representatives (CLRs). Attorneys from the respective regional Solicitor's offices will be part of the meeting when possible. These meetings will serve as both a training tool and a forum for information sharing. Discussions will focus on recent commission decisions, examples of upheld and modified citations and orders, and how conference officers can best use the ACRI program to train the inspectors on determining the appropriate level of enforcement action when issuing violations.

The current electronic system for tracking safety and health conferences and contested cases will be enhanced to provide national monitoring of CLR activities. This data will be periodically reviewed and evaluated by the Special Assistant. If data indicate potential problems, the Special Assistant will advise the Administrator and appropriate corrective action will be implemented through policy directives, informational bulletins and/or additional training.

Revise the Coal Mine Safety and Health Accountability Program.

The current CMS&H Accountability Program is intended to evaluate the overall effectiveness and quality of the health and safety enforcement program and to provide reasonable assurances that Agency regulations, policies, procedures and guidelines are being followed. The current accountability program requires both a periodic review of specific enforcement activities, as designated by the District Manager, and a Headquarters accountability review of a more inclusive list of district enforcement activities. In the past, these reviews have been beneficial to finding and correcting district deficiencies as well as identifying specific programs that need additional review and evaluation. However, these reviews are more process oriented and do not provide the in-depth quality analyses needed to ensure that permanent corrective actions are put in place to effectively address the issues.

Some of our districts, recognizing this shortcoming with the existing program, have implemented an individualized internal review program that focuses less on documentation and more on root causes of issues. In an effort to promote consistency and to better evaluate CMS&H for improvement needs, especially in the inspection arena, I have formed a committee and charged them to evaluate and revise the existing accountability program. The committee will address the need to develop a quarterly review program to ensure that MSHA regulations, policies, and procedures are effectively applied in all districts.

An Emergency Temporary Standard (ETS) was developed to address fire fighting and evacuation plans and procedures.

Based on the findings of the accident investigation, it was evident that a proper evacuation was not followed after the explosions at the JWR No. 5 Mine. Mine management was aware that an explosion had occurred and subsequently failed to issue the proper instructions to underground mine personnel to evacuate the mine. The miners were not alerted to the explosion and several miners were directed to proceed to the explosion area with the understanding that a fire or ignition had occurred. While it was evident that underground personnel should have been evacuated immediately, the failure on mine management's part to issue appropriate instructions elevated the concern of protecting miners during an emergency situation. The ETS became effective on December 12, 2002, and replaced the existing standard 30 C.F.R. §75.1101-23. Work will continue to ensure the ETS becomes a final rule.

National emphasis on rock dust surveys and compliance.

The report of internal review, as well as the Accident Investigation Report of the explosions at the No. 5 Mine, identified deficiencies in the area of maintenance of incombustible content of rock dust (30 CFR §75.403). Historically, rock dusting has been recognized as a fundamental safety practice and as an effective safeguard against the intensity of coal dust explosions. I will reemphasize the requirements of 30 C.F.R. §75.403 and reiterate the need to consider methane concentrations as part of the computation in determining the required percent of incombustible material. In addition, a standardized system will be developed for each district to monitor rock dust surveys for compliance and subsequent enforcement actions as required.

I have also directed a committee to explore the feasibility of automating the notification process after samples have been analyzed at our Mount Hope laboratory. This would require updating the General Inspection Procedures Handbook and the Dust Sampling Lab Report (MSHA Form 2000-156) that is completed by the inspector and accompanies the samples to the laboratory. Determination for compliance, including the influence of methane present during the survey, would be automatically calculated following

analysis. This information would then be included in the results of the analyses that are returned to the district.

National guidance regarding supplemental support materials, equipment and tools (30 C.F.R. §75.214).

The report of internal review identified a need for national guidance regarding the requirements of 30 C.F.R. §75.214. This regulation refers to the quantity, location and the tools/equipment necessary for installation of supplemental roof support material. I will issue a written directive to provide inspection guidance to all enforcement personnel on location, type and quantity of supplemental roof support materials.

New Supervisor and Coal Mine Inspector (CMI) Trainee Mentoring Program.

Coal Mine Safety and Health has established Mentoring Guidelines specifically for new supervisors and CMI trainees. Although the internal review report limited its recommendations to address the training and development of supervisors, CMS&H has expanded the initiative to include CMI trainees as well.

In order to assure that our new CMI trainees and new supervisors receive the quality of training and developmental activities necessary, it is essential to monitor and evaluate their progress. The purpose of the mentoring program is to ensure that each newly hired inspector or supervisor receives the nature, type and degree of training needed. In the past we have not had a formal process to ensure that our employee developmental activities constituted the most effective approach.

Accordingly, Headquarters has established training guidelines for both new supervisors and new inspectors. Each district will establish an On-the-Job Training (OJT) protocol using Headquarters guidance to develop a training path for new first line supervisors and CMI Trainees. The experienced journeyman inspectors will serve as mentors for the CMI trainees; while the senior experienced supervisors will serve as mentors for the newly promoted inexperienced supervisors. This training path includes mentoring, training, expectations, etc. As part of the supervisor mentoring, Individual Development Plans (IDP) will be established.

Headquarter's Evaluation

CMS&H will measure the effectiveness of our responses to the internal review team's recommendations. I will direct a team of MSHA personnel to conduct a follow-up evaluation in District 11 no later than eight months after the release of the internal review report. This evaluation will be focused on measuring the improvements in District 11 resulting from the corrective actions. The results of this evaluation will be documented and forwarded to me for review.

As noted throughout the report, CMS&H Headquarters office and District 11 have already taken many corrective actions to address several of the issues identified by the internal review team. Each of these actions will be reviewed to determine their effectiveness.

Several of my responses to the internal review team's recommendations will require committee work and additional written directives. The work to revise the accountability program, develop an automated rock dust/coal dust sample result transmission program and the rewrite of the CMS&H General Inspection Procedures Handbook will be completed by October 1, 2003. The written directives from CMS&H Headquarter's office addressing enforcement of 30 CFR §75.1101-23(c); 30 CFR §75.1702; 30 CFR §75.403 and 30 CFR §75.214 will be issued by March 14, 2003. The memorandums from the District 11 Manager, defining his actions related to guidance on the ACRI program, a 104 (d) tracking system, requirements of 30 CFR §75.370(d), 30 CFR §75.1202, etc. as outlined in the attachment, will be submitted to the Administrator of CMS&H by March 7, 2003.

The following attachment contains an itemized list of CMS&H's response to all of the internal review's recommendations where corrective action has yet to be taken.

Attachment

CMS&H Responses to Report of Internal Review Recommendations

Internal Review Team's Recommendation Concerning Section 103(a) Inspections: The Administrator should evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve guidance to field personnel. The Administrator should also consider development of a resource package to reside on inspector laptop computers to include MSHA regulations, handbooks, procedures, and all MSHA forms.

CMS&H's Response: The Administrator will form a committee to evaluate the current *CMS&H General Inspection Procedures Handbook* and its revision to improve guidance to field personnel. The committee will also research the development of a resource package to reside on inspector laptop computers to include MSHA regulations, handbooks, procedures, and all MSHA forms.

Internal Review Team's Recommendation Concerning Use of Sections 104(a), 104(b), 104(d), and 107(a) : District 11 enforcement personnel should receive comprehensive training concerning application of the appropriate level of enforcement.

CMS&H's Response: The Administrator has formed a committee to revise the current accountability program and develop a hands-on peer review program. The committee was instructed to submit a time line and action plan to the Administrator by February 14, 2003. District 11 will conduct an intense training session with enforcement personnel to reemphasize the directives of the April and November 2002, CMS&H directives.

Internal Review Team's Recommendation Concerning Alternative Case Resolution Initiative (ACRI): The District Manager should follow-up to ensure that the requirements of *CMS&H Memo No. HQ-96-134-P* and the *ACRI Handbook* are met. Inspectors and supervisors should receive adequate justification for all modifications and vacates resulting from Safety and Health conferences, and the CLR should discuss the conditions and circumstances surrounding the citations or orders with inspectors prior to settlement agreements being submitted to the Regional Solicitor Office or Administrative Law Judge.

CMS&H's Response: The District 11 Manager will submit an action plan to the Administrator by March 7, 2003, outlining the district's implementation of the requirements of CMS&H Memo No. HQ-96-134-P and the ACRI Handbook.

Internal Review Team's Recommendation Concerning Unwarrantable Failure Tracking System: **:** District 11 should develop and maintain an effective tracking system for the unwarrantable sequence. This tracking system should be routinely evaluated through quarterly peer reviews.

The Administrator should evaluate the feasibility of including the updated unwarrantable status of each mine into resource package for laptop computers used by inspection personnel.

CMS&H's Response: The District 11 Manager will submit a memorandum to the Administrator by March 7, 2003, outlining the action plan that ensures an effective 104(d) tracking system is in place.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.360; 75.362; and 75.364: The District 11 Manager should provide adequate oversight to ensure that established inspection procedures regarding preshift examinations are followed. District 11 should conduct reviews each inspection quarter to evaluate the overall effectiveness and quality of their inspections and provide assurance that inspection procedures are followed.

The District 11 Manager must ensure that report and paperwork reviews highlight potential problems with examinations and record keeping. Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's records of examinations to determine if hazards are being recorded with corrective actions. Emphasis should be placed on inspection personnel to check relevant records of examinations as a resource to determine the length of time a particular hazard has existed.

The District 11 Manager should implement a system that will identify potential deficiencies related to weekly examinations. This review process should include specialists and field office groups.

CMS&H's Response: The Administrator has formed a committee to revise the current accountability program and develop a hands-on peer review program. The committee was instructed to submit a time line and action plan to the Administrator by February 14, 2003.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.403: The District 11 Manager should ensure that enforcement personnel take appropriate enforcement action when visual observation of rock dust samples collected indicates possible noncompliance.

CMS&H's Response: District 11 has implemented a system to track rock dust surveys for compliance and subsequent enforcement action. District 11 inspection personnel have been instructed to take appropriate enforcement action when visual observation of rock dust surveys indicate possible noncompliance.

The Administrator has assigned a committee to formulate a method of electronic transmission of the sample results that would be readily accessible to the responsible inspection and clerical personnel. The committee is also to implement a system that would electronically flag sample results that indicate noncompliance. These electronic capabilities would enhance the districts' ability to make compliance determinations in a more timely and efficient manner and would also ensure proper enforcement action is taken when warranted. The committee is to develop a time line, action plan, and anticipated implementation of this project by February 14, 2003.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.1101-23(c): The District 11 Manager should ensure that report and paperwork reviews highlight potential problems with examinations and record keeping. Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's records.

The Administrator should evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve and clarify note keeping procedures to ensure that record books are not overlooked during inspections.

CMS&H's Response: The Administrator will develop a guidance memorandum for all inspection personnel emphasizing the importance of ensuring fire drills are being conducted every 90 days as required by 30 CFR 75.1101-23(c). Inspection personnel will be instructed to review the record books, observe a fire drill being conducted, and interview a representative number of miners to ensure that all miners are participating in the drills.

The Administrator will form a committee to evaluate the current *CMS&H General Inspection Procedures Handbook* and its revision to improve guidance to field personnel. The committee will also research the development of a resource package to reside on inspector laptop computers to include MSHA regulations, handbooks, procedures, and all MSHA forms.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.214: The Administrator should evaluate the need to issue guidance regarding the type and quantity of supplemental roof support materials required by 30 CFR 75.214.

CMS&H's Response: The Administrator will issue a written directive to provide inspection guidance to all enforcement personnel on location, type and quantity of supplemental roof support materials.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.333: Due to the fact that inspectors and supervisors did not recognize and cite this violation of 30 CFR 75.333 indicates that this oversight was made due to a lack of understanding of the requirements. Therefore, comprehensive training should be given, including the use of relevant technical support resources, to raise the awareness of the requirements for permanent ventilation controls and relevant ASTM standards.

CMS&H's Response: A memorandum will be sent from the Administrator to the Directorate of Technical Support requesting a memorandum be issued to all inspection personnel discussing the requirements of 30 CFR 75.333 concerning noncombustible material and coatings approved under the ASTM standards.

In addition, the Administrator will evaluate the potential of developing a computer program that will be available on inspector computers to determine which noncombustible materials and coatings have been approved.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.370(a)(1): The District Manager should ensure that enforcement personnel thoroughly review the operator's examination records to determine compliance with applicable portions of the approved mine ventilation plan.

CMS&H's Response: The Administrator has directed the District Manager to ensure that ventilation specialists discuss the requirements of 30 CFR 75.364 with each underground mine operator. A discussion should be held using an up-to-date mine map with the ventilation specialist going over where weekly examination readings and travel is required including seals, main splits, bleeder travel, and bleeder points. The ventilation specialist will ensure that the operator understands the location and purpose of required readings.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.370(d):
The District 11 Manager should ensure that specialists and inspection personnel follow guidelines outlined in the Preamble to 30 CFR 75.370(d).

CMS&H's Response: The Administrator has instructed the District Manager to include a review of the nine examples of intentional air changes that need prior approval to inspection personnel during the next staff meeting. The District Manager will respond in writing to the Administrator when completed.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.508:
The Administrator should evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve and clarify note keeping procedures to ensure that required maps are thoroughly examined and documented during inspections.

CMS&H's Response: The Administrator will form a committee to evaluate the current *CMS&H General Inspection Procedures Handbook* and its revision to improve guidance to field personnel. The committee will also research the development of a resource package to reside on inspector laptop computers to include MSHA regulations, handbooks, procedures, and all MSHA forms.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.1202:
The District 11 Manager should ensure that enforcement personnel follow established inspection procedures regarding the review of mine maps. District 11 should implement a system to ensure that any mine maps submitted to the district contain all required information and are complete and up-to-date.

CMS&H's Response: The District 11 Manager will submit an action plan to the Administrator by March 7, 2003, that ensures all submitted mine maps are up-to-date and complete with all required information.

Internal Review Team's Recommendation Concerning Enforcement of 30 CFR 75.1702:
The District 11 Manager should ensure that report and paperwork reviews highlight potential problems with examinations and record keeping.

Quarterly reviews of inspection reports should be implemented in District 11. Personnel conducting the reviews should also examine a representative number of operator's required records.

The Administrator should also evaluate the need to revise the *CMS&H General Inspection Procedures Handbook* to improve and clarify notekeeping procedures to ensure that record books are not overlooked during inspections.

CMS&H's Response: The Administrator will issue a memorandum to all inspection personnel emphasizing the importance of ensuring that searches for smoking articles are being conducted. Inspection personnel will be instructed to review the record books, observe a smoking search being conducted, and interview a representative number of miners to ensure that all miners are participating in the searches for smoking articles.

The Administrator will form a committee to evaluate the current *CMS&H General Inspection Procedures Handbook* and its revision to improve guidance to field personnel. The committee will also research the development of a resource package to reside on inspector laptop computers to include MSHA regulations, handbooks, procedures, and all MSHA forms.

Internal Review Team's Recommendation Concerning Roof Control Plan – Review and Approval: The District Manager should correct the remaining deficiency in the roof control plan which relates to the method of setting temporary support as described on page 20 of the current plan. The Administrator should ensure that all roof control plans in District 11 do not contain similar deficiencies.

CMS&H's Response: The Administrator has instructed the District Manager to correct the remaining deficiencies in the Roof Control Plan as discussed in this report. The District Manager will respond in writing to the Administrator by March 7, 2003, outlining the status of the changes.

Internal Review Team's Recommendation Concerning Mine Ventilation Plan – Review and Approval: The deficiencies in the approved ventilation plan should be addressed by District 11. Available resources, which may include Technical Support, should be considered when deficiencies are identified during future plan reviews.

CMS&H's Response: The Administrator has instructed the District Manager to correct the remaining deficiencies in the Mine Ventilation Plan as discussed in this report. The District Manager will respond in writing to the Administrator by March 7, 2003, outlining the status of the changes.

Internal Review Team's Recommendation Concerning Accountability Program: The revised program should include provisions for follow-up when issues are identified to ensure that effective corrective actions have been implemented.

CMS&H's Response: The Administrator has formed a committee to revise the current accountability program and develop a hands-on peer review program. The committee was instructed to submit a time line and action plan to the Administrator by February 14, 2003.

Internal Review Team's Recommendation Concerning Supervisory and Second-Level Reviews: The District 11 Manager should provide adequate oversight to ensure the requirements of the *CMS&H Supervisor's Handbook* are followed. This system should be routinely evaluated through quarterly reviews.

CMS&H's Response: The Administrator has instructed the District Manager of District 11 to conduct quarterly meetings with supervisors that include training and guidance in the requirements of the CMS&H Supervisor's Handbook. The District Manager will hold the supervisors and Assistant District Manager accountable for their reviews under the performance management system. The results of these meetings will be documented on a memorandum and sent to the Administrator.

Internal Review Team's Recommendation Concerning Conflict of Interest: The District Manager should take steps to ensure that new employees have worked with MSHA for at least two years prior to conducting assignments at mines where they were formerly employed. Compliance with this requirement should be evaluated through periodic district reviews.

CMS&H's Response: The Administrator has discussed MSHA's policy with the managers in District 11 regarding assignment of inspectors to mines where they had been previously employed. The District 11 Manager will ensure new inspectors do not conduct inspection activities at mines or facilities where they were formerly employed within the past two years. Verification will be documented and sent to the Administrator by March 7, 2003.

Appendix C
Enforcement Actions taken by MSHA at the No. 5 Mine
(06/06/2000 – 09/20/2001)

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
06/07/2000	7669296	104-A Citation	No	Ventilation	75.333C2
06/07/2000	7674722	104-A Citation	No	Miscellaneous	77.1710D
06/08/2000	7674723	104-A Citation	No	Diesel-Powered Equipment	75.1909A8
06/08/2000	7674724	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/08/2000	7674725	104-A Citation	No	Ventilation	75.333H
06/08/2000	7674726	104-A Citation	No	Roof Support	75.220A1
06/08/2000	7674727	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/09/2000	7674728	104-A Citation	No	Ventilation	75.333C3
06/09/2000	7674729	104-A Citation	No	Ventilation	75.370A1
06/09/2000	7674730	104-A Citation	No	Fire Protection	75.1100-2F
06/12/2000	7674732	104-A Citation	No	Fire Protection	75.1100-2B
06/12/2000	7674733	104-A Citation	No	Ventilation	75.333H
06/13/2000	7669298	104-A Citation	Yes	Roof Support	75.220A1
06/13/2000	7669299	104-A Citation	No	Ventilation	75.362A2
06/13/2000	7669300	104-A Citation	No	Ventilation	75.370A1
06/13/2000	7674201	104-A Citation	No	Fire Protection	75.1100-3
06/13/2000	7674548	104-A Citation	No	Electrical Equipment - General	75.508
06/13/2000	7674549	104-A Citation	No	Ventilation	75.340A2I
06/13/2000	7674550	104-A Citation	No	Trailing Cables	75.601-1
06/13/2000	7674551	104-A Citation	No	Ventilation	75.370A1
06/13/2000	7674734	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/13/2000	7674735	104-A Citation	Yes	Electrical Equipment - General	75.523-3B3
06/14/2000	7674202	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/14/2000	7674203	104-A Citation	No	Ventilation	75.370A1
06/14/2000	7674552	104-A Citation	No	Diesel-Powered Equipment	75.1909I
06/14/2000	7674553	104-A Citation	No	Diesel-Powered Equipment	75.1911E
06/14/2000	7674554	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
06/14/2000	7674555	104-A Citation	No	Diesel-Powered Equipment	75.1911A4
06/14/2000	7674556	104-A Citation	No	Diesel-Powered Equipment	75.1905B1
06/14/2000	7674557	104-A Citation	No	Diesel-Powered Equipment	75.1905A
06/15/2000	7674559	104-A Citation	Yes	Hoisting and Mantrips	75.1403-6B2
06/19/2000	7674736	104-A Citation	No	Roof Support	75.202A
06/20/2000	7674560	104-A Citation	Yes	Underground High-Voltage Distribution	75.803
06/20/2000	7674561	104-A Citation	No	Trailing Cables	75.601-1
06/20/2000	7674737	104-A Citation	No	Roof Support	75.220A1
06/20/2000	7674738	104-A Citation	No	Electrical Equipment - General	75.503
06/20/2000	7674739	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/21/2000	7674562	104-A Citation	No	Underground Low And Medium AC Circuits	75.902
06/21/2000	7674563	104-A Citation	No	Hoisting and Mantrips	75.1403
06/21/2000	7674740	104-A Citation	No	Ventilation	75.333C3
06/21/2000	7674741	104-A Citation	No	Ventilation	75.333C2
06/21/2000	7674742	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/22/2000	7674564	104-A Citation	No	Underground Low And Medium AC Circuits	75.902

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
06/22/2000	7674565	104-A Citation	No	Underground Low And Medium AC Circuits	75.900
06/22/2000	7674743	104-A Citation	No	Roof Support	75.208
06/26/2000	7674566	104-A Citation	No	Ventilation	75.360F
06/26/2000	7674567	104-A Citation	No	Personnel Hoisting	77.1404
06/27/2000	7674744	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/27/2000	7674745	104-A Citation	No	Ventilation	75.333H
06/27/2000	7674746	104-D-2 Order	No	Combustible Materials and Rock Dusting	75.400
06/28/2000	7674568	104-A Citation	No	Hoisting and Mantrips	75.1403-6A2
06/28/2000	7674569	104-A Citation	No	Hoisting and Mantrips	75.1403-6B2
06/28/2000	7674570	104-A Citation	No	Hoisting and Mantrips	75.1403-6B2
06/28/2000	7674571	104-A Citation	Yes	Diesel-Powered Equipment	75.1909B7
06/29/2000	7674747	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/29/2000	7674748	104-A Citation	No	Ventilation	75.380D4
07/03/2000	7674625	104-A Citation	No	Trailing Cables	75.606
07/03/2000	7674626	104-A Citation	No	Diesel-Powered Equipment	75.1911B
07/05/2000	7674572	104-A Citation	No	Slope and Shaft Sinking	77.1900-1
07/05/2000	7674573	104-A Citation	No	Fire Protection	77.1104
07/05/2000	7674574	104-A Citation	No	Fire Protection	77.1109C1
07/06/2000	7674627	104-A Citation	No	Diesel-Powered Equipment	75.1910F
07/06/2000	7674628	104-A Citation	No	Diesel-Powered Equipment	75.1909B4
07/06/2000	7674629	104-A Citation	No	Diesel-Powered Equipment	75.1909B5
07/06/2000	7674630	104-A Citation	No	Diesel-Powered Equipment	75.1903B1
07/07/2000	7674631	104-A Citation	No	Hoisting and Mantrips	75.1403-6B1
07/11/2000	7674632	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/12/2000	7674633	104-A Citation	No	Ventilation	75.364G
07/13/2000	7674634	104-A Citation	No	Trailing Cables	75.606
07/13/2000	7674635	104-A Citation	No	Electrical Equipment - General	75.517
07/14/2000	7674636	104-A Citation	No	Surface Installations	77.208D
07/17/2000	7674637	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/18/2000	7674638	104-A Citation	No	Diesel-Powered Equipment	75.1903B1
07/18/2000	7674639	104-A Citation	No	Trailing Cables	75.602
07/19/2000	7674640	104-A Citation	Yes	Roof Support	75.202A
07/19/2000	7675003	104-A Citation	No	Fire Protection	75.1101-10
07/20/2000	7675004	104-D-2 Order	Yes	Ventilation	75.370A1
07/20/2000	7675005	104-A Citation	Yes	Ventilation	75.324A1
07/20/2000	7675006	104-A Citation	Yes	Ventilation	75.324B1
07/24/2000	7674641	104-A Citation	No	Diesel-Powered Equipment	75.1910F
07/24/2000	7674642	104-A Citation	No	Diesel-Powered Equipment	75.1903B1
07/24/2000	7674643	104-A Citation	No	Diesel-Powered Equipment	75.1910F
07/24/2000	7674644	104-A Citation	No	Diesel-Powered Equipment	75.1910D
07/24/2000	7674645	104-A Citation	No	Ventilation	75.380D2
07/24/2000	7674646	104-A Citation	No	Ventilation	75.380D4II
07/25/2000	7674647	104-A Citation	No	Diesel-Powered Equipment	75.1910F
07/25/2000	7674648	104-A Citation	No	Diesel-Powered Equipment	75.1909A1
07/25/2000	7674649	104-A Citation	No	Diesel-Powered Equipment	75.1911A4
07/25/2000	7674650	104-A Citation	No	Combustible Materials and Rock Dusting	75.400

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
07/26/2000	7674212	104-A Citation	Yes	Occupational Noise Exposure	71.800
07/26/2000	7674651	104-A Citation	No	Underground High-Voltage Distribution	75.807
07/31/2000	7674652	103-K Order			
07/31/2000	7674653	104-A Citation	Yes	Roof Support	75.220A1
08/01/2000	7674654	104-A Citation	Yes	Roof Support	75.202A
08/01/2000	7674655	104-A Citation	No	Diesel-Powered Equipment	75.1910F
08/01/2000	7674656	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/02/2000	7674657	104-A Citation	Yes	Roof Support	75.202A
08/02/2000	7674658	104-A Citation	No	Ventilation	75.340A1I
08/02/2000	7674659	104-A Citation	No	Underground High-Voltage Distribution	75.807
08/03/2000	7674660	104-A Citation	No	Miscellaneous	75.1722A
08/03/2000	7674661	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/07/2000	7674662	104-A Citation	No	Diesel-Powered Equipment	75.1911B
08/09/2000	7674588	104-A Citation	No	Safeguards for Mechanical Equipment	77.410A1
08/09/2000	7674663	104-A Citation	No	Ventilation	75.360F
08/09/2000	7674664	104-A Citation	No	Underground High-Voltage Distribution	75.807
08/10/2000	7674589	104-A Citation	No	Hoisting and Mantrips	75.1403-8B
08/10/2000	7674590	104-A Citation	No	Hoisting and Mantrips	75.1403-10E
08/10/2000	7674591	104-A Citation	No	Fire Protection	75.1107-1D
08/10/2000	7674592	104-A Citation	No	Underground Low And Medium AC Circuits	75.902
08/10/2000	7674665	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/10/2000	7674666	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/10/2000	7674667	104-A Citation	No	Ventilation	75.360E
08/11/2000	7674668	104-A Citation	No	Diesel-Powered Equipment	75.1909A1
08/11/2000	7674669	104-A Citation	No	Electrical Equipment - General	75.503
08/11/2000	7674670	104-A Citation	No	Diesel-Powered Equipment	75.1910F
08/14/2000	7674671	104-A Citation	No	Ventilation	75.350
08/14/2000	7674672	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/14/2000	7674673	104-A Citation	No	Roof Support	75.202A
08/14/2000	7674674	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/15/2000	7674675	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/15/2000	7674676	104-A Citation	No	Ventilation	75.380D1
08/21/2000	7674677	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/21/2000	7674678	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/21/2000	7674679	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/21/2000	7674680	104-A Citation	No	Electrical Equipment - General	75.503
08/21/2000	7674681	104-A Citation	No	Electrical Equipment - General	75.503
08/21/2000	7674682	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/22/2000	7674683	104-A Citation	No	Ventilation	75.360E
08/23/2000	7674596	104-A Citation	Yes	Safeguards for Mechanical Equipment	77.404A
08/23/2000	7674597	104-A Citation	No	Loading and Haulage	77.1604B
08/28/2000	7674503	104-A Citation	No	Ventilation	75.342B2
08/28/2000	7674600	104-A Citation	No	Trolley Wires and Trolley Feeder Wires	75.1002-1A
08/28/2000	7675301	104-A Citation	No	Electrical Equipment - General	75.512
08/28/2000	7675302	104-A Citation	No	Electrical Equipment - General	75.512-2
08/29/2000	7674490	104-A Citation	No	Hoisting and Mantrips	75.1403-4D

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
08/29/2000	7675303	104-A Citation	No	Fire Protection	75.1104
08/29/2000	7675304	104-A Citation	No	Loading and Haulage	77.1607D
08/31/2000	7664194	104-A Citation	No	Ventilation	75.370A1
08/31/2000	7675305	104-A Citation	No	Diesel-Powered Equipment	75.1911A1
08/31/2000	7675306	104-A Citation	No	Diesel-Powered Equipment	75.1910I
08/31/2000	7675307	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/31/2000	7675308	104-A Citation	No	Diesel-Powered Equipment	75.1906A
08/31/2000	7675309	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/31/2000	7675310	104-A Citation	No	Diesel-Powered Equipment	75.1909A5
08/31/2000	7675311	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/01/2000	7674684	104-A Citation	No	Ventilation	75.383B1
09/01/2000	7674685	104-A Citation	No	Ventilation	75.383B2
09/05/2000	7674686	104-A Citation	No	Fire Protection	75.1106-3A2
09/05/2000	7674687	104-A Citation	No	Diesel-Powered Equipment	75.1909A3I
09/05/2000	7674688	104-A Citation	No	Reporting of Accidents Injuries Illnesses	50.20A
09/07/2000	7674689	104-A Citation	No	Fire Protection	77.1104
09/07/2000	7674690	104-A Citation	No	Loading and Haulage	77.1605B
09/07/2000	7674691	104-A Citation	No	Loading and Haulage	77.1605B
09/07/2000	7674692	104-A Citation	No	Safeguards for Mechanical Equipment	77.403-AD
09/12/2000	7675007	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/16/2000	7674965	103-K Order			
09/19/2000	7674693	104-A Citation	No	Electrical Equipment - General	75.503
09/19/2000	7674694	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/20/2000	7674219	104-A Citation	No	Ventilation	75.333C2
09/20/2000	7674695	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/21/2000	7674696	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/22/2000	7674697	104-A Citation	No	Electrical Equipment - General	75.503
09/22/2000	7674698	104-A Citation	No	Ventilation	75.333C
09/22/2000	7674699	104-A Citation	No	Combustible Materials and Rock Dusting	75.403
09/25/2000	7674700	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/25/2000	7675325	104-A Citation	Yes	Underground Low And Medium AC Circuits	75.900
09/25/2000	7675326	104-A Citation	No	Diesel-Powered Equipment	75.1909A1
09/25/2000	7675327	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/25/2000	7675328	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/25/2000	7675329	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/25/2000	7675330	104-A Citation	No	Ventilation	75.370A1
09/26/2000	7675331	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/26/2000	7675332	104-A Citation	No	Diesel-Powered Equipment	75.1910G
09/26/2000	7675333	104-A Citation	No	Fire Protection	75.1103-9D
09/26/2000	7675334	104-A Citation	No	Fire Protection	75.1100-2B
09/26/2000	7675601	104-A Citation	Yes	Roof Support	75.220A1
09/27/2000	7674781	104-A Citation	No	Ventilation	75.333H
09/27/2000	7675602	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
09/27/2000	7675603	104-A Citation	No	Ventilation	75.370A1
09/27/2000	7675604	104-A Citation	Yes	Ventilation	75.360F
09/28/2000	7674782	104-A Citation	No	Electrical Equipment - General	75.503

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
09/28/2000	7675605	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
10/02/2000	7675606	104-A Citation	No	Underground High-Voltage Distribution	75.807
10/02/2000	7675607	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
10/02/2000	7675608	104-A Citation	No	Fire Protection	75.1100-3
10/02/2000	7675609	104-A Citation	No	Diesel-Powered Equipment	75.1910F
10/02/2000	7675610	104-A Citation	No	Fire Protection	75.1103-9B
10/04/2000	7674221	104-A Citation	No	Ventilation	75.333C2
10/04/2000	7674222	104-A Citation	No	Ventilation	75.370A1
10/04/2000	7674223	104-A Citation	No	Roof Support	75.220A1
10/04/2000	7674224	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
10/05/2000	7675611	104-A Citation	No	Hoisting and Mantrips	75.1403
10/09/2000	7675612	104-A Citation	No	Miscellaneous	75.1702
10/10/2000	7675613	104-A Citation	Yes	Roof Support	75.220A1
10/11/2000	7675614	104-A Citation	No	Ventilation	75.340A1I
10/12/2000	7675350	104-A Citation	No	Fire Protection	77.1108-1B3
10/12/2000	7675351	104-A Citation	No	Miscellaneous	77.1710G
10/12/2000	9866716	104-A Citation	No	Sampling Procedures	71.208A
10/12/2000	9866717	104-A Citation	No	Sampling Procedures	71.208A
10/13/2000	7668181	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
10/13/2000	7668182	104-A Citation	No	Ventilation	75.362D1II
10/13/2000	7668183	104-A Citation	Yes	Roof Support	75.202B
10/16/2000	7668184	104-A Citation	No	Ventilation	75.370A1
10/16/2000	7675615	104-A Citation	No	Ventilation	75.380B1
10/16/2000	7675616	104-A Citation	No	Ventilation	75.333C1
10/18/2000	7675352	104-A Citation	No	Fire Protection	77.1104
10/19/2000	7668189	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
10/19/2000	7675353	104-A Citation	Yes	Safeguards for Mechanical Equipment	77.404A
10/19/2000	7675617	104-A Citation	No	Fire Protection	75.1106-3A2
10/23/2000	7675354	104-A Citation	No	Training and Retraining of Miners	48.31D
10/24/2000	7675355	104-A Citation	No	Electrical Equipment - General	77.502
10/24/2000	7675356	104-A Citation	No	Surface Installations	77.204
10/24/2000	7675357	104-A Citation	No	Electrical Equipment - General	77.516
10/24/2000	7675618	104-A Citation	No	Ventilation	75.360F
10/26/2000	7675619	104-A Citation	No	Ventilation	75.360E
10/30/2000	7675620	104-A Citation	No	Hoisting and Mantrips	75.1403-7J
10/30/2000	7675621	104-A Citation	No	Diesel-Powered Equipment	75.1910F
10/30/2000	7675622	104-A Citation	No	Diesel-Powered Equipment	75.1909B4
10/30/2000	7675623	104-A Citation	Yes	Electrical Equipment - General	75.512
10/30/2000	7675624	104-A Citation	No	Ventilation	75.333B3
10/30/2000	7675625	104-A Citation	No	Ventilation	75.370A1
10/30/2000	7675626	104-A Citation	No	Fire Protection	75.1107-7B
10/31/2000	7675359	104-A Citation	No	Trailing Cables	75.601-1
10/31/2000	7675360	104-A Citation	No	Underground Low And Medium AC Circuits	75.904
10/31/2000	7675361	104-A Citation	No	Ventilation	75.333C
10/31/2000	7675627	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
11/01/2000	7675363	104-A Citation	No	Combustible Materials and Rock Dusting	75.400

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
11/01/2000	7675364	104-A Citation	No	Fire Protection	75.1106-3A3
11/01/2000	7675365	104-A Citation	No	Grounding	75.701-2
11/01/2000	7675628	104-A Citation	No	Ventilation	75.340A
11/02/2000	7675629	104-A Citation	Yes	Ventilation	75.370A1
11/02/2000	7675630	104-A Citation	Yes	Ventilation	75.370A1
11/02/2000	7675631	103-K Order			
11/02/2000	7675632	104-A Citation	No	Ventilation	75.370A1
11/03/2000	7675366	104-A Citation	No	Electrical Equipment - General	75.512
11/04/2000	7675367	104-A Citation	Yes	Underground Low And Medium AC Circuits	75.900
11/06/2000	7675368	104-A Citation	No	Ventilation	75.333B3
11/06/2000	7675369	104-A Citation	No	Hoisting and Mantrips	75.1403-5J
11/06/2000	7675370	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
11/06/2000	7675371	104-A Citation	No	Diesel-Powered Equipment	75.1910G
11/08/2000	7669757	104-A Citation	No	Hoisting and Mantrips	75.1403
11/08/2000	7675633	104-A Citation	No	Roof Support	75.220A1
11/09/2000	7675634	104-A Citation	No	Diesel-Powered Equipment	75.1910J
11/09/2000	7675635	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
11/09/2000	7675636	104-A Citation	No	Diesel-Powered Equipment	75.1910F
11/09/2000	7675637	104-A Citation	No	Diesel-Powered Equipment	75.1909B4
11/09/2000	7675638	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
11/09/2000	7675639	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
11/09/2000	7675640	104-A Citation	No	Diesel-Powered Equipment	75.1911A
11/09/2000	7675641	104-A Citation	No	Diesel-Powered Equipment	75.1910F
11/09/2000	7675642	104-A Citation	No	Diesel-Powered Equipment	75.1910F
11/14/2000	7674792	104-A Citation	No	Ventilation	75.333H
11/14/2000	7674793	104-A Citation	No	Fire Protection	75.1100-2B
11/14/2000	7675643	104-A Citation	No	Ventilation	75.370A1
11/14/2000	7675644	104-A Citation	No	Ventilation	75.381C1
11/15/2000	7675645	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
11/16/2000	7675646	104-A Citation	No	Diesel-Powered Equipment	75.1911A4
11/16/2000	7675647	104-A Citation	No	Electrical Equipment - General	75.503
11/20/2000	7669758	104-A Citation	No	Combustible Materials and Rock Dusting	75.403
11/21/2000	7675648	104-A Citation	No	Ventilation	75.364B6
11/21/2000	7675650	104-A Citation	Yes	Ventilation	75.360A1
11/21/2000	7675651	104-A Citation	No	Ventilation	75.360B9
11/28/2000	7675652	104-A Citation	No	Safeguards for Mechanical Equipment	77.400A
11/29/2000	7675653	104-A Citation	No	Fire Protection	77.1104
11/29/2000	7675654	104-A Citation	No	Fire Protection	77.1104
12/02/2000	7675395	104-A Citation	No	Underground Low And Medium AC Circuits	75.900-3
12/02/2000	7675396	104-A Citation	No	Trailing Cables	75.601-1
12/04/2000	7675657	104-A Citation	No	Ventilation	75.370A1
12/04/2000	7675658	104-A Citation	No	Ventilation	75.380D4II
12/06/2000	7675397	104-A Citation	No	Hoisting and Mantrips	75.1403-10E
12/06/2000	7675398	104-A Citation	No	Grounding	75.701-2
12/06/2000	7675399	104-A Citation	No	Underground Low And Medium AC Circuits	75.902
12/08/2000	7675659	104-A Citation	No	Training and Retraining of Miners	48.11A1

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
12/13/2000	7675400	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
12/13/2000	7676101	104-A Citation	No	Ventilation	75.360A1
12/19/2000	7675660	104-A Citation	No	Diesel-Powered Equipment	75.1910F
12/20/2000	7675661	104-A Citation	Yes	Roof Support	75.203A
12/20/2000	7675662	104-A Citation	No	Ventilation	75.364B4
12/26/2000	7674244	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
12/26/2000	7674245	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
12/26/2000	7674246	104-A Citation	No	Ventilation	75.370A1
12/27/2000	7675663	104-A Citation	No	Ventilation	75.364B4
01/03/2001	7675714	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
01/03/2001	7675715	104-A Citation	No	Diesel-Powered Equipment	75.1907B2
01/03/2001	7675716	104-A Citation	No	Ventilation	75.333H
01/03/2001	7676110	104-A Citation	No	Underground Low And Medium AC Circuits	75.900-4
01/03/2001	7676111	104-A Citation	No	Ventilation	75.340A1
01/03/2001	7676112	104-A Citation	Yes	Electrical Equipment - General	75.503
01/03/2001	7676113	104-A Citation	Yes	Ventilation	75.342A4
01/04/2001	7675717	104-A Citation	No	Roof Support	75.220A1
01/04/2001	7675718	104-A Citation	No	Electrical Equipment - General	75.503
01/05/2001	7675719	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
01/05/2001	7676014	104-A Citation	No	Ventilation	75.364H
01/08/2001	7674248	104-A Citation	No	Ventilation	75.333C2
01/08/2001	7674249	104-A Citation	Yes	Roof Support	75.202A
01/08/2001	7674250	104-A Citation	No	Ventilation	75.362G2
01/08/2001	7675720	104-A Citation	No	Ventilation	75.333H
01/10/2001	7675721	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
01/12/2001	7676015	103-K Order			
01/16/2001	7675722	104-A Citation	No	Fire Protection	75.1100-2B
01/16/2001	7675723	104-A Citation	Yes	Ventilation	75.333H
01/16/2001	7675724	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
01/18/2001	7676016	104-A Citation	No	Ventilation	75.321A1
01/18/2001	7676118	104-A Citation	No	Ventilation	75.324B3
01/19/2001	7676119	104-A Citation	No	Ventilation	75.360E
01/19/2001	7676120	104-A Citation	Yes	Underground Low And Medium AC Circuits	75.902
01/19/2001	7676121	104-A Citation	Yes	Underground Low And Medium AC Circuits	75.900
01/22/2001	7674251	104-A Citation	No	Ventilation	75.370A1
01/22/2001	7675726	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
01/22/2001	7675727	104-A Citation	No	Ventilation	75.333H
01/22/2001	7675728	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
01/22/2001	7676017	104-A Citation	Yes	Roof Support	75.202A
01/22/2001	7676018	104-A Citation	No	Ventilation	75.360F
01/22/2001	7676019	104-A Citation	No	Ventilation	75.360F
01/22/2001	7676020	104-A Citation	No	Ventilation	75.360F
01/23/2001	7676125	104-A Citation	No	Ventilation	75.340A2I
01/24/2001	7676021	104-A Citation	No	Ventilation	75.383A
01/25/2001	7675732	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
01/25/2001	7675733	104-A Citation	No	Ventilation	75.333H

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
01/25/2001	7676022	104-A Citation	No	Diesel-Powered Equipment	75.1914D
01/27/2001	7676023	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
01/27/2001	7676024	104-A Citation	No	Ventilation	75.370A1
01/27/2001	7676025	104-A Citation	No	Ventilation	75.370A1
01/27/2001	7676026	104-A Citation	No	Ventilation	75.370A1
01/27/2001	7676027	104-A Citation	No	Ventilation	75.370A1
01/27/2001	7676126	104-A Citation	No	Electrical Equipment - General	77.516
01/27/2001	7676127	104-A Citation	No	Surface Installations	77.205B
01/27/2001	7676128	104-A Citation	No	Electrical Equipment - General	77.516
01/29/2001	7675734	104-A Citation	Yes	Roof Support	75.202A
01/29/2001	9867478	104-A Citation	No	Sampling Procedures	70.208A
01/29/2001	9867479	104-A Citation	No	Sampling Procedures	70.208A
01/30/2001	7675735	104-A Citation	No	Ventilation	75.370A1
01/30/2001	7675736	104-A Citation	No	Diesel-Powered Equipment	75.1914A
01/30/2001	7675737	104-A Citation	No	Electrical Equipment - General	75.503
01/30/2001	7676028	104-A Citation	No	Explosives and Blasting	75.1312G
01/30/2001	7676029	104-A Citation	No	Explosives and Blasting	75.1318E
01/30/2001	7676130	104-A Citation	No	Hoisting and Mantrips	75.1403
01/31/2001	7675674	104-A Citation	No	Surface Installations	77.216-3A1
01/31/2001	7676030	104-A Citation	No	Ventilation	75.370A1
01/31/2001	7676031	104-A Citation	No	Ventilation	75.370A1
02/01/2001	9867480	104-A Citation	Yes	Dust Standards	70.100
02/02/2001	7676032	104-A Citation	Yes	Miscellaneous	75.1725A
02/02/2001	7676033	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
02/05/2001	7676034	104-A Citation	No	Ventilation	75.370A1
02/07/2001	7676035	104-A Citation	No	Ventilation	75.384A
02/09/2001	7676036	104-A Citation	Yes	Trailing Cables	75.605
02/09/2001	7676037	104-A Citation	Yes	Electrical Equipment - General	75.517
02/09/2001	7676038	104-A Citation	Yes	Roof Support	75.202A
02/12/2001	7676039	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
02/12/2001	7676040	104-A Citation	Yes	Ventilation	75.333B4
02/12/2001	7676041	104-A Citation	No	Ventilation	75.370A1
02/12/2001	7676042	104-A Citation	Yes	Ventilation	75.360A1
02/12/2001	7676043	104-A Citation	Yes	Hoisting and Mantrips	75.1403-6B1
02/13/2001	7676044	104-A Citation	Yes	Hoisting and Mantrips	75.1403-6B1
02/15/2001	7676045	104-A Citation	No	Roof Support	75.220A1
02/21/2001	7676046	104-A Citation	Yes	Electrical Equipment - General	75.503
02/22/2001	7676047	104-A Citation	Yes	Diesel-Powered Equipment	75.1909A10
02/22/2001	7676048	104-A Citation	No	Diesel-Powered Equipment	75.1909A8
02/22/2001	7676049	104-A Citation	No	Diesel-Powered Equipment	75.1910J
02/22/2001	7676050	104-A Citation	No	Electrical Equipment - General	75.503
02/22/2001	7676051	104-A Citation	Yes	Electrical Equipment - General	75.503
02/24/2001	7676052	104-A Citation	No	Underground High-Voltage Distribution	75.807
02/26/2001	4766439	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
02/26/2001	4766440	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
02/26/2001	7676053	104-A Citation	Yes	Miscellaneous	75.1725A

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
02/26/2001	7676054	104-A Citation	Yes	Miscellaneous	75.1725A
02/26/2001	7676055	104-A Citation	No	Electrical Equipment - General	75.520
02/26/2001	7676056	104-A Citation	No	Ventilation	75.333H
02/28/2001	7676057	104-A Citation	No	Diesel-Powered Equipment	75.1910F
02/28/2001	7676058	104-A Citation	No	Diesel-Powered Equipment	75.1909A2
02/28/2001	7676059	104-A Citation	No	Diesel-Powered Equipment	75.1909A2
03/01/2001	7676060	104-A Citation	No	Hoisting and Mantrips	75.1403-5J
03/01/2001	7676061	104-A Citation	Yes	Miscellaneous	75.1725A
03/01/2001	7676062	104-A Citation	No	Ventilation	75.333C3
03/05/2001	7676063	104-A Citation	Yes	Electrical Equipment - General	75.503
03/05/2001	7676064	104-A Citation	No	Diesel-Powered Equipment	75.1914D
03/05/2001	7676065	104-A Citation	No	Diesel-Powered Equipment	75.1914D
03/05/2001	7676066	104-A Citation	No	Electrical Equipment - General	75.512
03/05/2001	7676138	104-A Citation	No	Miscellaneous	75.1722B
03/06/2001	7676067	104-A Citation	No	Miscellaneous	75.1714-3D
03/08/2001	7676142	104-A Citation	No	Underground Low And Medium AC Circuits	75.900-4
03/08/2001	7676143	104-A Citation	No	Underground Low And Medium AC Circuits	75.900-4
03/08/2001	7676144	104-A Citation	No	Ventilation	75.360F
03/08/2001	9867489	104-A Citation	Yes	Dust Standards	70.100
03/12/2001	7676068	104-A Citation	No	Surface Installations	77.202
03/13/2001	7676069	104-A Citation	Yes	Roof Support	75.202A
03/14/2001	7676070	104-A Citation	No	Loading and Haulage	77.1605D
03/14/2001	7676071	104-A Citation	No	Loading and Haulage	77.1605D
03/14/2001	7676072	104-A Citation	No	Loading and Haulage	77.1605B
03/14/2001	7676073	104-A Citation	No	Loading and Haulage	77.1605D
03/14/2001	7676074	104-A Citation	No	Loading and Haulage	77.1605D
03/16/2001	7676075	104-A Citation	Yes	Surface Installations	77.208E
03/16/2001	7676076	104-A Citation	No	Loading and Haulage	77.1605D
03/19/2001	7676077	104-A Citation	No	Fire Protection	75.1107-16C
03/19/2001	7676150	104-A Citation	No	Diesel-Powered Equipment	75.1909A5
03/19/2001	7676151	104-A Citation	No	Diesel-Powered Equipment	75.1909A5
03/19/2001	7676152	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/19/2001	7676153	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/19/2001	7676154	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/19/2001	7676155	104-A Citation	No	Fire Protection	75.1107-4A2
03/19/2001	7676156	104-A Citation	No	Diesel-Powered Equipment	75.1910J
03/19/2001	7676157	104-A Citation	No	Diesel-Powered Equipment	75.1909A1
03/19/2001	7676158	104-A Citation	No	Diesel-Powered Equipment	75.1910J
03/19/2001	7676159	104-A Citation	No	Diesel-Powered Equipment	75.1911A1
03/19/2001	7676160	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/19/2001	7676161	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/19/2001	7676162	104-A Citation	No	Electrical Equipment - General	75.512
03/21/2001	7676078	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/21/2001	7676163	104-A Citation	No	Electrical Equipment - General	75.503
03/23/2001	7675840	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
03/23/2001	7675841	104-A Citation	No	Diesel-Powered Equipment	75.1903B1

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
03/26/2001	7675842	104-A Citation	Yes	Ventilation	75.370A1
03/26/2001	7675843	104-A Citation	Yes	Ventilation	75.370A1
03/26/2001	7676079	104-A Citation	No	Surface Installations	77.202
03/26/2001	7676080	104-A Citation	No	Surface Installations	77.200
03/27/2001	7676081	104-A Citation	No	Miscellaneous	75.1725A
03/27/2001	7676082	104-A Citation	Yes	Ventilation	75.370A1
03/29/2001	7676083	104-A Citation	Yes	Roof Support	75.202A
04/03/2001	7675494	104-A Citation	No	Roof Support	75.208
04/03/2001	7675495	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.403
04/03/2001	7675496	107-A Order			
04/03/2001	7675497	104-A Citation	Yes	Ventilation	75.321A1
04/03/2001	7675498	107-A Order			
04/03/2001	7675499	104-A Citation	Yes	Ventilation	75.321A1
04/03/2001	7675500	104-A Citation	Yes	Ventilation	75.362D2
04/06/2001	7676301	104-A Citation	Yes	Ventilation	75.360B3
04/06/2001	7676302	104-A Citation	Yes	Ventilation	75.360B3
04/10/2001	7676303	104-A Citation	No	Trailing Cables	75.606
04/10/2001	7676304	104-A Citation	No	Hoisting and Mantrips	75.1403-6B2
04/17/2001	7675844	104-A Citation	No	Ventilation	75.370A1
04/19/2001	7675845	107-A Order			
04/19/2001	7675846	104-A Citation	Yes	Ventilation	75.321A1
04/19/2001	7675847	104-A Citation	No	Ventilation	75.370A1
04/30/2001	7676305	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
04/30/2001	7676306	104-A Citation	No	Miscellaneous	75.1722A
04/30/2001	7676307	104-A Citation	Yes	Miscellaneous	75.1725A
04/30/2001	7676308	104-D-1 Citation	Yes	Combustible Materials and Rock Dusting	75.400
04/30/2001	7676309	104-A Citation	Yes	Ventilation	75.362B
05/02/2001	7676310	104-A Citation	Yes	Miscellaneous	75.1722A
05/03/2001	7675848	104-A Citation	No	Hoisting and Mantrips	75.1403-5G
05/03/2001	7675849	104-A Citation	No	Ventilation	75.333B3
05/03/2001	7675850	104-A Citation	No	Ventilation	75.370A1
05/03/2001	7675851	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/03/2001	7675852	104-A Citation	Yes	Miscellaneous	75.1722A
05/07/2001	7669764	104-A Citation	No	Hoisting and Mantrips	75.1403
05/07/2001	7669765	104-A Citation	No	Fire Protection	75.1100-2F
05/07/2001	7669766	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/07/2001	7669767	104-A Citation	No	Ventilation	75.333B3
05/07/2001	7675853	107-A Order			
05/07/2001	7675854	104-A Citation	Yes	Ventilation	75.360B3
05/08/2001	7676311	104-A Citation	No	Ventilation	75.360B8
05/09/2001	7675855	104-A Citation	Yes	Ventilation	75.360B3
05/09/2001	7675856	104-D-1 Order	No	Ventilation	75.333B4
05/10/2001	4477533	104-A Citation	No	Occupational Noise Exposure	62.130A
05/10/2001	7676312	104-A Citation	No	Ventilation	75.360B8
05/11/2001	7676313	104-A Citation	No	Hoisting and Mantrips	75.1403
05/11/2001	7676314	104-A Citation	No	Ventilation	75.360F

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
05/11/2001	7676315	104-A Citation	No	Ventilation	75.360E
05/11/2001	7676316	104-A Citation	No	Trailing Cables	75.601-1
05/11/2001	7676317	104-A Citation	No	Trailing Cables	75.601-1
05/11/2001	7676318	104-A Citation	No	Trailing Cables	75.601-1
05/11/2001	7676319	104-A Citation	No	Ventilation	75.360E
05/14/2001	7675857	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/15/2001	7675858	104-A Citation	No	Ventilation	75.380D2
05/15/2001	7675859	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/16/2001	7675860	104-A Citation	No	Roof Support	75.202A
05/16/2001	7675861	104-A Citation	No	Underground High-Voltage Distribution	75.807
05/17/2001	7675862	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/17/2001	7675863	104-A Citation	Yes	Ventilation	75.370A1
05/17/2001	7675864	103-K Order			
05/17/2001	7675865	104-A Citation	Yes	Fire Protection	75.1106
05/22/2001	7675866	104-A Citation	No	Ventilation	75.370A1
05/24/2001	7675867	104-A Citation	Yes	Diesel-Powered Equipment	75.1914A
05/24/2001	7675868	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/24/2001	7675869	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
05/24/2001	7675870	104-A Citation	No	Electrical Equipment - General	75.503
05/24/2001	7675871	104-A Citation	No	Electrical Equipment - General	75.503
05/24/2001	7675872	104-A Citation	No	Ventilation	75.322
05/24/2001	7676320	104-A Citation	Yes	Ventilation	75.362D2
05/25/2001	7676321	104-A Citation	No	Ventilation	75.323C2
05/30/2001	7675873	104-A Citation	Yes	Roof Support	75.202A
05/30/2001	7675874	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
05/31/2001	7675875	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
06/01/2001	7676322	104-A Citation	No	Roof Support	75.202B
06/05/2001	7675553	104-A Citation	No	Surface Installations	77.205E
06/05/2001	7675554	104-A Citation	No	Surface Installations	77.202
06/05/2001	7675555	104-A Citation	No	Electrical Equipment - General	77.502
06/11/2001	7674277	104-A Citation	No	Diesel-Powered Equipment	75.1916D
06/11/2001	7674278	104-A Citation	No	Hoisting and Mantrips	75.1403-7E
06/12/2001	7675876	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/12/2001	7675877	104-A Citation	No	Electrical Equipment - General	75.503
06/12/2001	7675878	104-A Citation	No	Electrical Equipment - General	75.503
06/14/2001	7675559	104-A Citation	Yes	Electrical Equipment - General	77.504
06/14/2001	7675879	104-A Citation	No	Diesel-Powered Equipment	75.1916E
06/14/2001	7675880	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/15/2001	7675881	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
06/15/2001	7675882	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
06/18/2001	7675883	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/19/2001	7675884	104-A Citation	Yes	Roof Support	75.202A
06/19/2001	7675885	104-A Citation	No	Diesel-Powered Equipment	75.1904A4
06/20/2001	7674279	104-A Citation	No	Hoisting and Mantrips	75.1403-7E
06/20/2001	7674280	104-A Citation	No	Fire Protection	75.1100-3
06/20/2001	7674281	104-A Citation	Yes	Roof Support	75.220A1

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
06/21/2001	7675886	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/21/2001	7675887	104-A Citation	No	Diesel-Powered Equipment	75.1911E
06/21/2001	7675888	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/21/2001	7675889	104-A Citation	No	Hoisting and Mantrips	75.1403-6B3
06/21/2001	7675890	104-A Citation	No	Diesel-Powered Equipment	75.1911E
06/21/2001	7675891	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/21/2001	7675892	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
06/21/2001	7675893	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/03/2001	4870841	104-A Citation	No	Ventilation	75.333H
07/03/2001	4870843	104-A Citation	Yes	Roof Support	75.202A
07/03/2001	7676273	104-A Citation	No	Diesel-Powered Equipment	75.1903B1
07/05/2001	7676274	104-A Citation	No	Ventilation	75.333H
07/05/2001	7676275	104-A Citation	Yes	Roof Support	75.220A1
07/05/2001	7676276	104-A Citation	Yes	Roof Support	75.202A
07/05/2001	7676277	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/06/2001	7676278	104-A Citation	No	Ventilation	75.360E
07/06/2001	7676279	104-A Citation	No	Diesel-Powered Equipment	75.1911I
07/06/2001	7676280	104-A Citation	No	Ventilation	75.340A2I
07/06/2001	7676281	104-A Citation	No	Roof Support	75.208
07/06/2001	7676282	104-A Citation	No	Ventilation	75.360E
07/06/2001	7676284	104-A Citation	No	Ventilation	75.370A1
07/09/2001	7676285	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/09/2001	7676286	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/09/2001	7676287	104-A Citation	No	Ventilation	75.333H
07/10/2001	7676288	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/10/2001	7676289	104-A Citation	No	Ventilation	75.333H
07/11/2001	7676290	104-A Citation	No	Ventilation	75.380D1
07/11/2001	7676291	104-A Citation	No	Ventilation	75.370A1
07/14/2001	7674290	104-A Citation	Yes	Hoisting and Mantrips	75.1403-7E
07/14/2001	7674291	104-A Citation	No	Ventilation	75.333C2
07/14/2001	7674292	104-A Citation	No	Ventilation	75.333H
07/14/2001	7674293	104-A Citation	No	Ventilation	75.364G
07/14/2001	7674294	104-A Citation	No	Ventilation	75.380D2
07/14/2001	7674295	104-A Citation	No	Miscellaneous	75.1713-7B5
07/14/2001	7674296	104-A Citation	No	Miscellaneous	75.1713-7B7
07/18/2001	7676613	104-A Citation	No	Ventilation	75.380B1
07/21/2001	7674300	104-B Order		Ventilation	75.333H
07/21/2001	7677201	104-A Citation	No	Ventilation	75.333H
07/21/2001	7677202	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/25/2001	4870881	104-A Citation	No	Ventilation	75.333H
07/25/2001	7676614	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
07/25/2001	7676615	104-A Citation	Yes	Ventilation	75.370A1
07/30/2001	7676292	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
07/30/2001	7676293	104-A Citation	No	Diesel-Powered Equipment	75.1903B2
07/30/2001	7677204	104-A Citation	No	Ventilation	75.333H
07/30/2001	7677205	104-A Citation	No	Ventilation	75.370A1

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
07/30/2001	7677206	104-A Citation	No	Miscellaneous	75.1714-2C
07/31/2001	7669628	104-A Citation	No	Ventilation	75.364A2III
08/01/2001	7676294	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/01/2001	7676295	104-A Citation	No	Hoisting and Mantrips	75.1403
08/01/2001	7676296	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/01/2001	7676297	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/01/2001	7676298	104-A Citation	No	Diesel-Powered Equipment	75.1910J
08/01/2001	7676299	104-A Citation	No	Hoisting and Mantrips	75.1403
08/02/2001	4870845	104-A Citation	No	Hoisting and Mantrips	75.1403
08/02/2001	4870846	104-A Citation	No	Diesel-Powered Equipment	75.1910J
08/02/2001	4870847	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/02/2001	4870848	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/02/2001	7676300	104-A Citation	No	Diesel-Powered Equipment	75.1910J
08/06/2001	7677301	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/06/2001	7677302	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/06/2001	7677303	104-A Citation	No	Diesel-Powered Equipment	75.1910J
08/06/2001	7677304	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/06/2001	7677305	104-A Citation	Yes	Diesel-Powered Equipment	75.1914A
08/08/2001	4870849	104-A Citation	No	Ventilation	75.383A
08/08/2001	4870850	104-A Citation	No	Ventilation	75.333H
08/08/2001	4870851	104-A Citation	No	Ventilation	75.362C2
08/09/2001	7677306	104-A Citation	No	Fire Protection	75.1100-3
08/09/2001	7677307	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/09/2001	7677308	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/13/2001	7677119	104-A Citation	No	Hoisting and Mantrips	75.1403
08/13/2001	7677120	104-A Citation	Yes	Roof Support	75.220A1
08/13/2001	7677309	104-A Citation	No	Electrical Equipment - General	75.503
08/13/2001	7677311	104-A Citation	Yes	Roof Support	75.202A
08/14/2001	7677210	104-A Citation	No	Hoisting and Mantrips	75.1403
08/14/2001	7677211	104-A Citation	Yes	Roof Support	75.220A1
08/14/2001	7677312	104-A Citation	No	Electrical Equipment - General	75.516-2B
08/18/2001	7677313	103-K Order			
08/21/2001	7677315	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/21/2001	7677316	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/21/2001	7677317	104-A Citation	Yes	Miscellaneous	75.1722A
08/21/2001	7677318	104-A Citation	No	Ventilation	75.333H
08/21/2001	7677319	104-A Citation	No	Ventilation	75.333H
08/21/2001	7677320	104-A Citation	No	Ventilation	75.333H
08/21/2001	7677322	104-A Citation	No	Fire Protection	75.1100-2B
08/22/2001	7677212	104-A Citation	Yes	Miscellaneous	75.1720D
08/22/2001	7677321	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/22/2001	7677323	104-A Citation	No	Ventilation	75.333H
08/22/2001	7677324	104-A Citation	No	Ventilation	75.333H
08/22/2001	7677325	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/22/2001	7677326	104-A Citation	No	Roof Support	75.220A1
08/23/2001	7677215	104-B Order		Roof Support	75.220A1

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
08/27/2001	7677327	104-A Citation	No	Ventilation	75.333C3
08/29/2001	7677328	104-A Citation	No	Underground High-Voltage Distribution	75.807
08/29/2001	7677329	104-A Citation	Yes	Roof Support	75.202A
08/29/2001	7677330	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/29/2001	7677331	104-A Citation	No	Diesel-Powered Equipment	75.1910J
08/29/2001	7677332	104-A Citation	No	Ventilation	75.333H
08/29/2001	7677333	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/29/2001	7677334	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
08/30/2001	7676764	103-K Order			
09/04/2001	7677335	103-K Order			
09/04/2001	7677336	104-A Citation	Yes	Electrical Equipment - General	75.503
09/04/2001	7677337	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/04/2001	7677338	104-A Citation	Yes	Roof Support	75.202A
09/10/2001	7677339	104-A Citation	No	Underground High-Voltage Distribution	75.807
09/12/2001	7677340	104-A Citation	No	Diesel-Powered Equipment	75.1914A
09/12/2001	7677341	104-A Citation	No	Diesel-Powered Equipment	75.1911I
09/13/2001	7677342	104-A Citation	Yes	Electrical Equipment - General	75.503
09/14/2001	7677343	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/14/2001	7677344	104-A Citation	No	Ventilation	75.333H
09/14/2001	7677345	104-A Citation	Yes	Roof Support	75.202A
09/14/2001	7677346	104-A Citation	No	Ventilation	75.333H
09/14/2001	7677347	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
09/14/2001	7677348	104-A Citation	Yes	Roof Support	75.202A
09/14/2001	7677349	104-A Citation	Yes	Miscellaneous	75.1725A
09/14/2001	7677350	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/17/2001	7677219	104-A Citation	No	Ventilation	75.333H
09/17/2001	7677220	107-A Order			
09/17/2001	7677221	104-A Citation	No	Ventilation	75.333C2
09/17/2001	7677222	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/17/2001	7677223	104-A Citation	No	Ventilation	75.380D4II
09/17/2001	7677224	104-A Citation	No	Ventilation	75.370A1
09/17/2001	7677351	104-A Citation	No	Diesel-Powered Equipment	75.1909B4
09/17/2001	7677352	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/18/2001	7677353	104-A Citation	No	Hoisting and Mantrips	75.1405
09/18/2001	7677354	104-A Citation	Yes	Hoisting and Mantrips	75.1405
09/18/2001	7677355	104-A Citation	No	Hoisting and Mantrips	75.1403
09/18/2001	7677356	104-A Citation	Yes	Combustible Materials and Rock Dusting	75.400
09/18/2001	7677357	104-A Citation	Yes	Roof Support	75.202A
09/18/2001	7677358	104-A Citation	Yes	Miscellaneous	75.1725A
09/18/2001	7677359	104-A Citation	No	Ventilation	75.333H
09/18/2001	7677360	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/19/2001	4870852	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/19/2001	4870853	104-A Citation	No	Hoisting and Mantrips	75.1403
09/19/2001	4870854	104-A Citation	No	Hoisting and Mantrips	75.1403
09/19/2001	4870855	104-A Citation	No	Diesel-Powered Equipment	75.1911A4
09/19/2001	4870856	104-A Citation	No	Diesel-Powered Equipment	75.1911E

DATE	C/O #	Type Issuance	S&S	30 CFR Subpart Description	30 CFR Std.
09/19/2001	4870857	104-A Citation	No	Diesel-Powered Equipment	75.1909A2
09/19/2001	4870858	103-K Order			
09/19/2001	4870859	104-A Citation	Yes	Electrical Equipment - General	75.503
09/19/2001	7677361	104-A Citation	No	Hoisting and Mantrips	75.1403
09/19/2001	7677362	104-A Citation	No	Hoisting and Mantrips	75.1403
09/19/2001	7677363	104-A Citation	No	Hoisting and Mantrips	75.1403
09/19/2001	7677364	104-A Citation	No	Hoisting and Mantrips	75.1403
09/19/2001	7677365	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/19/2001	7677366	104-A Citation	No	Fire Protection	75.1100-3
09/20/2001	7677367	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/20/2001	7677368	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/20/2001	7677369	104-A Citation	No	Ventilation	75.333H
09/20/2001	7677370	104-A Citation	No	Ventilation	75.333H
09/20/2001	7677371	104-A Citation	No	Combustible Materials and Rock Dusting	75.400
09/20/2001	7677372	104-A Citation	No	Combustible Materials and Rock Dusting	75.400

Appendix D
MSHA Inspection Events at the No. 5 Mine
(06/06/2000 – 09/23/2001)

BEGIN	END	EVENT	CODE	DESCRIPTION
06/06/00	06/19/00	4289974	BAB	RESP DUST TECH INSP - U. G. MINES
06/06/00	09/11/00	4290614	AAA	SAFETY AND HEALTH INSPECTION
06/06/00	06/07/00	4289975	BBB	NOISE TECHNICAL INVESTIGATION
06/07/00	06/07/00	4290615	ABC	103(I) SPOT (5-DAY) INSPECTION
06/12/00	06/12/00	4290709	BAE	SFTY & HLTH (SHFTS,SLPES, & SITES)
06/13/00	06/21/00	4289977	BAB	RESP DUST TECH INSP - U. G. MINES
06/13/00	06/22/00	4290710	CBC	ELECTRICAL SPOT INSPECTION
06/13/00	06/13/00	4290616	ABC	103(I) SPOT (5-DAY) INSPECTION
06/13/00	06/14/00	4289978	BBB	NOISE TECHNICAL INVESTIGATION
06/14/00	06/21/00	4289979	BAB	RESP DUST TECH INSP - U. G. MINES
06/14/00	06/15/00	4289980	BBB	NOISE TECHNICAL INVESTIGATION
06/18/00	07/06/00	4289981	BAB	RESP DUST TECH INSP - U. G. MINES
06/20/00	07/06/00	4289982	BAB	RESP DUST TECH INSP - U. G. MINES
06/20/00	06/20/00	4289983	BBB	NOISE TECHNICAL INVESTIGATION
06/20/00	06/20/00	4289984	ABC	103(I) SPOT (5-DAY) INSPECTION
06/29/00	06/29/00	4290617	ABC	103(I) SPOT (5-DAY) INSPECTION
07/02/00	07/03/00	4289988	BBB	NOISE TECHNICAL INVESTIGATION
07/03/00	07/03/00	4290419	ABC	103(I) SPOT (5-DAY) INSPECTION
07/05/00	07/31/00	4290712	BAE	SFTY & HLTH (SHFTS,SLPES, & SITES)
07/13/00	07/13/00	4290420	ABC	103(I) SPOT (5-DAY) INSPECTION
07/18/00	07/18/00	4290421	ABC	103(I) SPOT (5-DAY) INSPECTION
07/20/00	07/20/00	4289150	ADB	103(G)(1) SPOT UMWA INSPECTION
07/21/00	07/31/00	4290714	CBC	ELECTRICAL SPOT INSPECTION
07/25/00	08/18/00	4289993	BAB	RESP DUST TECH INSP - U. G. MINES
07/25/00	07/26/00	4289994	BBB	NOISE TECHNICAL INVESTIGATION
07/26/00	02/20/01	6029154	AGB	SPCL INVSGTR WILLFUL VIOL INVSGTN
07/26/00	07/26/00	4290423	CED	RESP DUST TECHNICAL INVESTIGATION
07/26/00	07/26/00	4290422	ABC	103(I) SPOT (5-DAY) INSPECTION
07/31/00	07/31/00	4290424	AFC	NON-INJURY ACCIDENT INVESTIGATION
08/01/00	08/22/00	4290544	BAB	RESP DUST TECH INSP - U. G. MINES
08/02/00	08/02/00	4290425	ABC	103(I) SPOT (5-DAY) INSPECTION
08/09/00	08/09/00	4290426	ABC	103(I) SPOT (5-DAY) INSPECTION
08/14/00	08/14/00	4290427	ABC	103(I) SPOT (5-DAY) INSPECTION
08/22/00	10/05/00	4290547	BAB	RESP DUST TECH INSP - U. G. MINES
08/22/00	08/22/00	4290428	ABC	103(I) SPOT (5-DAY) INSPECTION
08/24/00	08/24/00	4290429	AEA	TOXIC SUBS OR HARMFUL PHY AGENT INV

BEGIN	END	EVENT	CODE	DESCRIPTION
08/28/00	10/05/00	4290548	BAB	RESP DUST TECH INSP - U. G. MINES
08/29/00	08/29/00	4290549	AEA	TOXIC SUBS OR HARMFUL PHY AGENT INV
08/29/00	08/30/00	4290720	BAE	SFTY & HLTH (SHFTS,SLPES, & SITES)
08/29/00	08/29/00	4288297	ABC	103(I) SPOT (5-DAY) INSPECTION
08/30/00	08/30/00	4291102	CCC	VENTILATION TECHNICAL INSPECTION
08/30/00	10/23/00	4290550	BAB	RESP DUST TECH INSP - U. G. MINES
09/05/00	09/05/00	4290430	ABC	103(I) SPOT (5-DAY) INSPECTION
09/12/00	09/12/00	4289161	ABC	103(I) SPOT (5-DAY) INSPECTION
09/13/00	11/02/00	4291408	BAB	RESP DUST TECH INSP - U. G. MINES
09/16/00	09/19/00	4287385	AFC	NON-INJURY ACCIDENT INVESTIGATION
09/18/00	12/15/00	4290431	AAA	SAFETY AND HEALTH INSPECTION
09/20/00	09/20/00	4291411	ABC	103(I) SPOT (5-DAY) INSPECTION
09/26/00	09/26/00	4290432	ABC	103(I) SPOT (5-DAY) INSPECTION
10/01/00	09/30/01	9579463	DGB	COMPUTER GENERATED NOISE VIOLATION
10/01/00	09/30/01	9579464	DGC	OTHER OFFICE GENERATED VIOLATION
10/01/00	09/30/01	9579462	DGA	COMPUTER GENERATED DUST VIOLATION
10/02/00	10/23/00	4291413	BAB	RESP DUST TECH INSP - U. G. MINES
10/04/00	10/23/00	4291414	BAB	RESP DUST TECH INSP - U. G. MINES
10/04/00	10/04/00	4290433	ABC	103(I) SPOT (5-DAY) INSPECTION
10/05/00	12/15/00	4290434	CDB	ACCIDENT PREVENTION SPOT INSPECTION
10/06/00	10/09/00	4290435	ADB	103(G)(1) SPOT UMWA INSPECTION
10/10/00	11/02/00	4291415	BAF	RESP DUST TECH INSP - SURFACE MINES
10/10/00	10/10/00	4289651	CED	RESP DUST TECHNICAL INVESTIGATION
10/10/00	10/10/00	4290436	ABC	103(I) SPOT (5-DAY) INSPECTION
10/12/00	10/30/00	4290722	BAE	SFTY & HLTH (SHFTS,SLPES, & SITES)
10/16/00	10/16/00	4289652	ABC	103(I) SPOT (5-DAY) INSPECTION
10/19/00	10/19/00	4290244	CCE	WATER/SLURRY TECHNICAL INSPECTION
10/24/00	10/24/00	4290437	ABC	103(I) SPOT (5-DAY) INSPECTION
10/26/00	11/14/00	4291421	BAB	RESP DUST TECH INSP - U. G. MINES
11/01/00	11/01/00	4290438	ABC	103(I) SPOT (5-DAY) INSPECTION
11/02/00	11/06/00	4290439	AFC	NON-INJURY ACCIDENT INVESTIGATION
11/07/00	11/20/00	4290939	CCC	VENTILATION TECHNICAL INSPECTION
11/07/00	11/20/00	4290938	CCA	ROOF CONTROL TECHNICAL INSPECTION
11/08/00	11/08/00	4290440	ABC	103(I) SPOT (5-DAY) INSPECTION
11/14/00	11/14/00	4290251	CCE	WATER/SLURRY TECHNICAL INSPECTION
11/14/00	11/28/00	4290633	BAB	RESP DUST TECH INSP - U. G. MINES
11/14/00	11/14/00	4290441	ABC	103(I) SPOT (5-DAY) INSPECTION
11/21/00	11/22/00	4290442	ABC	103(I) SPOT (5-DAY) INSPECTION
11/30/00	11/30/00	4290444	ABC	103(I) SPOT (5-DAY) INSPECTION
12/04/00	01/19/01	4291430	BAB	RESP DUST TECH INSP - U. G. MINES
12/04/00	12/04/00	4290446	ABC	103(I) SPOT (5-DAY) INSPECTION
12/06/00	12/07/00	4290447	AEA	TOXIC SUBS OR HARMFUL PHY AGENT INV

BEGIN	END	EVENT	CODE	DESCRIPTION
12/13/00	12/13/00	4290448	ABC	103(I) SPOT (5-DAY) INSPECTION
12/15/00	03/30/01	4290450	CDB	ACCIDENT PREVENTION SPOT INSPECTION
12/15/00	03/30/01	4290449	AAA	SAFETY AND HEALTH INSPECTION
12/19/00	12/19/00	4290452	ABC	103(I) SPOT (5-DAY) INSPECTION
12/26/00	01/29/01	4291432	BAB	RESP DUST TECH INSP - U. G. MINES
12/27/00	12/27/00	4291433	CED	RESP DUST TECHNICAL INVESTIGATION
12/27/00	12/27/00	4290454	ABC	103(I) SPOT (5-DAY) INSPECTION
12/28/00	01/17/01	4291434	BAB	RESP DUST TECH INSP - U. G. MINES
01/03/01	01/03/01	4290640	ABC	103(I) SPOT (5-DAY) INSPECTION
01/08/01	01/19/01	4291437	BAB	RESP DUST TECH INSP - U. G. MINES
01/10/01	01/10/01	4287456	ABC	103(I) SPOT (5-DAY) INSPECTION
01/12/01	01/17/01	4287457	AFC	NON-INJURY ACCIDENT INVESTIGATION
01/18/01	01/18/01	4290642	ABC	103(I) SPOT (5-DAY) INSPECTION
01/22/01	01/29/01	4287458	BAD	CODE-A-PHONE SPOT INSPECTION
01/22/01	01/22/01	4291440	CED	RESP DUST TECHNICAL INVESTIGATION
01/23/01	01/23/01	4290134	CCA	ROOF CONTROL TECHNICAL INSPECTION
01/24/01	01/24/01	4290643	ABC	103(I) SPOT (5-DAY) INSPECTION
01/30/01	01/30/01	4287459	ABC	103(I) SPOT (5-DAY) INSPECTION
01/31/01	01/31/01	4290458	CCE	WATER/SLURRY TECHNICAL INSPECTION
02/07/01	02/07/01	4287460	ABC	103(I) SPOT (5-DAY) INSPECTION
02/08/01	02/08/01	4290136	ABC	103(I) SPOT (5-DAY) INSPECTION
02/11/01	02/20/01	4290571	BAB	RESP DUST TECH INSP - U. G. MINES
02/15/01	02/15/01	4287461	ABC	103(I) SPOT (5-DAY) INSPECTION
02/21/01	02/21/01	4287462	ABC	103(I) SPOT (5-DAY) INSPECTION
02/27/01	02/27/01	4287463	ABC	103(I) SPOT (5-DAY) INSPECTION
02/28/01	02/28/01	4287464	CED	RESP DUST TECHNICAL INVESTIGATION
03/05/01	03/05/01	4287465	ABC	103(I) SPOT (5-DAY) INSPECTION
03/08/01	03/08/01	4291328	CED	RESP DUST TECHNICAL INVESTIGATION
03/13/01	03/13/01	4287466	ABC	103(I) SPOT (5-DAY) INSPECTION
03/15/01	04/13/01	4290574	BAB	RESP DUST TECH INSP - U. G. MINES
03/15/01	03/15/01	4287467	CED	RESP DUST TECHNICAL INVESTIGATION
03/19/01	03/28/01	4290575	BAB	RESP DUST TECH INSP - U. G. MINES
03/20/01	04/13/01	4290576	BAB	RESP DUST TECH INSP - U. G. MINES
03/22/01	03/22/01	4287468	ABC	103(I) SPOT (5-DAY) INSPECTION
03/27/01	03/27/01	4287850	CBC	ELECTRICAL SPOT INSPECTION
03/27/01	03/27/01	4287469	ABC	103(I) SPOT (5-DAY) INSPECTION
03/30/01	06/21/01	4289661	AAA	SAFETY AND HEALTH INSPECTION
04/03/01	04/06/01	4287571	ABC	103(I) SPOT (5-DAY) INSPECTION
04/10/01	04/10/01	4287572	ABC	103(I) SPOT (5-DAY) INSPECTION
04/19/01	04/19/01	4289662	ABC	103(I) SPOT (5-DAY) INSPECTION
04/23/01	05/03/01	4290581	BAB	RESP DUST TECH INSP - U. G. MINES
04/23/01	04/24/01	4290582	BBB	NOISE TECHNICAL INVESTIGATION

BEGIN	END	EVENT	CODE	DESCRIPTION
04/25/01	04/26/01	4288155	ABC	103(I) SPOT (5-DAY) INSPECTION
04/30/01	04/30/01	4289663	CED	RESP DUST TECHNICAL INVESTIGATION
05/01/01	03/13/02	6029170	AGB	SPCL INVSGTR WILLFUL VIOL INVSGTN
05/02/01	05/02/01	4289664	ABC	103(I) SPOT (5-DAY) INSPECTION
05/03/01	05/10/01	4290583	BAB	RESP DUST TECH INSP - U. G. MINES
05/07/01	05/25/01	4290584	BAB	RESP DUST TECH INSP - U. G. MINES
05/07/01	05/08/01	4290585	BBB	NOISE TECHNICAL INVESTIGATION
05/09/01	05/25/01	4290586	BAB	RESP DUST TECH INSP - U. G. MINES
05/09/01	05/10/01	6124744	BBB	NOISE TECHNICAL INVESTIGATION
05/10/01	05/10/01	4287574	ABC	103(I) SPOT (5-DAY) INSPECTION
05/16/01	05/16/01	4289665	ABC	103(I) SPOT (5-DAY) INSPECTION
05/17/01	05/21/01	4289666	AFC	NON-INJURY ACCIDENT INVESTIGATION
05/24/01	05/24/01	4287575	CED	RESP DUST TECHNICAL INVESTIGATION
05/24/01	05/24/01	4287576	ABC	103(I) SPOT (5-DAY) INSPECTION
05/30/01	02/04/02	6029171	AGB	SPCL INVSGTR WILLFUL VIOL INVSGTN
05/30/01	05/30/01	4289667	ABC	103(I) SPOT (5-DAY) INSPECTION
06/04/01	06/04/01	4287577	CED	RESP DUST TECHNICAL INVESTIGATION
06/04/01	06/04/01	4287578	ABC	103(I) SPOT (5-DAY) INSPECTION
06/05/01	06/05/01	4290142	CCC	VENTILATION TECHNICAL INSPECTION
06/06/01	06/06/01	4290475	AEA	TOXIC SUBS OR HARMFUL PHY AGENT INV
06/06/01	06/06/01	4290476	CCE	WATER/SLURRY TECHNICAL INSPECTION
06/07/01	07/16/01	4291487	BAB	RESP DUST TECH INSP - U. G. MINES
06/11/01	06/25/01	4291488	BAB	RESP DUST TECH INSP - U. G. MINES
06/11/01	06/11/01	4291489	BBB	NOISE TECHNICAL INVESTIGATION
06/11/01	06/11/01	4289668	ABC	103(I) SPOT (5-DAY) INSPECTION
06/12/01	06/27/01	4291490	BAB	RESP DUST TECH INSP - U. G. MINES
06/13/01	06/27/01	4291491	BAF	RESP DUST TECH INSP - SURFACE MINES
06/15/01	06/15/01	4289669	ABC	103(I) SPOT (5-DAY) INSPECTION
06/20/01	06/20/01	4291493	CED	RESP DUST TECHNICAL INVESTIGATION
06/20/01	06/21/01	4291492	ABC	103(I) SPOT (5-DAY) INSPECTION
06/21/01	08/02/01	4291494	BAB	RESP DUST TECH INSP - U. G. MINES
06/22/01	07/16/01	4291495	BAB	RESP DUST TECH INSP - U. G. MINES
06/25/01	07/02/01	4290751	CBC	ELECTRICAL SPOT INSPECTION
06/25/01	06/25/01	4291496	ABC	103(I) SPOT (5-DAY) INSPECTION
07/03/01	07/03/01	4291731	ABC	103(I) SPOT (5-DAY) INSPECTION
07/05/01	07/05/01	4291732	ABC	103(I) SPOT (5-DAY) INSPECTION
07/06/01	09/29/01	4291733	AAA	SAFETY AND HEALTH INSPECTION
07/10/01	07/10/01	4290485	CCA	ROOF CONTROL TECHNICAL INSPECTION
07/10/01	07/10/01	4290484	ABC	103(I) SPOT (5-DAY) INSPECTION
07/18/01	07/19/01	4289200	ABC	103(I) SPOT (5-DAY) INSPECTION
07/24/01	09/18/01	4292802	CCC	VENTILATION TECHNICAL INSPECTION
07/24/01	07/24/01	4292801	ABC	103(I) SPOT (5-DAY) INSPECTION

BEGIN	END	EVENT	CODE	DESCRIPTION
07/30/01	07/30/01	4292407	CED	RESP DUST TECHNICAL INVESTIGATION
07/30/01	07/30/01	4291734	ABC	103(I) SPOT (5-DAY) INSPECTION
08/07/01	08/07/01	6145020	CED	RESP DUST TECHNICAL INVESTIGATION
08/07/01	08/07/01	6145019	ABC	103(I) SPOT (5-DAY) INSPECTION
08/08/01	08/08/01	4291736	CED	RESP DUST TECHNICAL INVESTIGATION
08/08/01	08/08/01	4291735	ABC	103(I) SPOT (5-DAY) INSPECTION
08/09/01	08/10/01	4292411	BBB	NOISE TECHNICAL INVESTIGATION
08/14/01	10/16/01	4292412	BAB	RESP DUST TECH INSP - U. G. MINES
08/14/01	08/14/01	4291737	ABC	103(I) SPOT (5-DAY) INSPECTION
08/21/01	08/21/01	4291739	ABC	103(I) SPOT (5-DAY) INSPECTION
08/24/01	09/07/01	4292413	BAB	RESP DUST TECH INSP - U. G. MINES
08/27/01	08/28/01	4291741	BAD	CODE-A-PHONE SPOT INSPECTION
08/27/01	08/27/01	4291740	ABC	103(I) SPOT (5-DAY) INSPECTION
08/30/01	08/30/01	4290671	AFC	NON-INJURY ACCIDENT INVESTIGATION
09/04/01	09/05/01	4291742	AFC	NON-INJURY ACCIDENT INVESTIGATION
09/06/01	09/06/01	4291744	AEA	TOXIC SUBS OR HARMFUL PHY AGENT INV
09/06/01	09/06/01	4291743	ABC	103(I) SPOT (5-DAY) INSPECTION
09/10/01	09/10/01	4291745	ABC	103(I) SPOT (5-DAY) INSPECTION
09/16/01	09/17/01	4291746	ABC	103(I) SPOT (5-DAY) INSPECTION
09/17/01	10/16/01	4292421	BAB	RESP DUST TECH INSP - U. G. MINES
09/18/01	09/18/01	4292422	ABC	103(I) SPOT (5-DAY) INSPECTION
09/19/01	09/19/01	4291747	AFC	NON-INJURY ACCIDENT INVESTIGATION