U.S. Department of Labor

Office of Inspector General—Office of Audit

MINE SAFETY AND HEALTH ADMINISTRATION

MSHA'S PROCESS FOR DETERMINING THE CHARGEABILITY OF REPORTED FATALITIES WOULD BENEFIT FROM ADDITIONAL CONTROLS

Date: November 14, 2007
Report Number: 05-08-002-06-001

U.S. Department of Labor
Office of Inspector General
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BRIEFLY…

Highlights of Report Number 05-08-002-06-001, *MSHA's Process for Determining the Chargeability of Reported Fatalities Would Benefit from Additional Controls*, to the Assistant Secretary for Mine Safety and Health, dated November 14, 2007.

WHY READ THE REPORT

Federal regulations require mine contractors and operators to report all fatalities to the Mine Safety and Health Administration (MSHA). Criteria established by MSHA classify a fatality as chargeable to the mine industry if the incident resulted in a death on mine property and from mine related work or the death was caused by mining activities. The number of chargeable fatalities impacts MSHA's performance measures and potentially the public's perception of how well it is fulfilling its mission. During Calendar Year 2006, there were 145 reported fatalities at U.S. mining operations. Of these, MSHA determined 72 to be chargeable.

In January 2007, MSHA initiated and completed an in-house review of how it determined which reported fatalities were chargeable. As a result, on February 9, 2007, MSHA's Assistant Secretary revised the procedure and changed the members of the Fatality Review Committee.

WHY OIG CONDUCTED THE AUDIT

In response to a request from Congressman George Miller, Chairman of the House Committee on Education and Labor, the Office of Inspector General (OIG) conducted a performance audit of MSHA's process for deciding whether reported fatalities were chargeable to the mining industry. Our objective was to determine whether MSHA's process and controls ensured that its decisions were consistent, supported by appropriate evidence, and in accordance with Federal regulations and MSHA policies.

READ THE FULL REPORT

To view the report, including the scope, methodology, and full agency response, go to:

http://www.oig.dol.gov/public/reports/oa/2008/05-08-002-06-001.pdf

November 2007

MSHA'S PROCESS FOR DETERMINING THE CHARGEABILITY OF REPORTED FATALITIES WOULD BENEFIT FROM ADDITIONAL CONTROLS

WHAT OIG FOUND

In a sample of 152 fatality decisions made between January 1, 2004 and December 31, 2006, and a sample of 24 decisions made between February 9, 2007, and June 30, 2007, the OIG did not identify any instances in which similar circumstances produced different decisions or instances where a chargeability decision was clearly contradicted by available evidence. However, we did identify instances of non-compliance with MSHA policies and control and procedural weaknesses that increased the risk that such errors could occur. Specifically, investigators and decision-makers lacked independence, investigative procedures were inconsistent, and investigative documentation was sometimes lacking.

WHAT OIG RECOMMENDED

We made seven recommendations to the Assistant Secretary for Mine Safety and Health aimed at reducing the actual and perceived risk of independence impairments and assuring that decisions are based on complete, well documented evidence.

Key recommendations included:

- defining a standard protocol for first responders;
- including an independent member on the Fatality Review Committee;
- implementing a standardized investigative protocol for all fatality investigations; and
- establishing a quality assurance process for documentation of investigative information.

The Assistant Secretary for Mine Safety and Health generally agreed with our recommendations, but MSHA needs to provide additional information before the OIG will consider the recommendations resolved.

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Executive Summary

In response to a request from Congressman George Miller, Chairman of the House Committee on Education and Labor, the Office of Inspector General (OIG) conducted a performance audit of the Mine Safety and Health Administration's (MSHA's) process for deciding whether reported fatalities were chargeable to the mining industry. Specifically, we performed work to answer the following question:

> Did MSHA's process and controls ensure that its decisions regarding whether a reported fatality was chargeable to the mining industry were consistent, supported by appropriate evidence, and in accordance with Federal regulations and MSHA policies?

Federal regulations require mine contractors and operators to report all fatalities to MSHA. The regulations do not specify how MSHA should determine whether a fatality is chargeable to the mine industry and, therefore, included in MSHA's reported statistics. Criteria established by MSHA classify a fatality as chargeable if the incident resulted in a death on mine property and from mine related work or the death was caused by mining activities. Fatalities on mine property resulting from (a) natural causes (e.g., heart attack); (b) personal impairment not complicated by or resulting from work activity; (c) trespass; (d) homicide; or (e) suicide were not considered chargeable. During calendar year (CY) 2006, there were 145 reported fatalities at U.S. mining operations. Of these, MSHA determined 72 to be chargeable.

In January 2007, MSHA initiated and completed an in-house review of how it determined which reported fatalities were chargeable. As a result, on February 9, 2007, MSHA's Assistant Secretary revised the procedure for making chargeability decisions and changed the members of the Fatality Review Committee.

The number of chargeable fatalities impacts MSHA's performance measures and potentially the public's perception of how well it is fulfilling its mission. It is important that MSHA ensure that chargeability decisions are consistent, supported by appropriate evidence, and in accordance with Federal regulations and its policies. Reliable and well documented chargeability decisions improve miner safety and health by increasing MSHA's ability to identify mining fatalities and utilize causal information to prevent similar occurrences.

Results

We reviewed a sample of 152 fatality decisions, both chargeable and non-chargeable, made between January 1, 2004, and December 31, 2006. We also reviewed 24 fatality decisions made between February 9, 2007, and June 30, 2007, during which time MSHA's revised policy was implemented. We did not identify instances in which similar circumstances produced different decisions or instances where a chargeability decision

was clearly contradicted by available evidence. However, we did identify instances of non-compliance with MSHA policies and control and procedural weaknesses that increased the risk that such errors could occur. We found that investigators and decision-makers lacked independence, investigative procedures were inconsistent, and investigative documentation was sometimes lacking.

Recommendations

The OIG recommends that the Assistant Secretary for MSHA:

1. Develop and implement a standard protocol for first responders.

2. Develop policies and procedures to require that the initial chargeability determination for all reported fatalities be made by an individual outside of the district in which the fatality occurred.

3. Include a member on the Fatality Review Committee who is not a current or former employee of either the Department of Labor or a mine operator.

4. Publish summary information on all reported fatalities, both chargeable and non-chargeable.

5. Establish and require a standard investigative protocol for all reported fatalities.

6. Require that a chargeability determination be made only at the conclusion of a complete investigation and considering all pertinent and available evidence.

7. Establish a system to assure that all facts and information used to reach a chargeability decision are supported by documentation.

Agency Response

In response to the draft report, DOL's Assistant Secretary for Mine Safety and Health stated that the audit provided valuable context to MSHA's stakeholders regarding chargeability decisions made by MSHA officials, as well as actions it can take to further enhance public confidence in the chargeability determination process. He agreed to revise MSHA's Accident/Illness Investigations Procedures Handbook to address several of our recommendations. He also agreed to make summary information on non-chargeable fatalities publicly available and to explore the possibility of an outside party serving on the Fatality Review Committee.

See Appendix D for the agency's complete response to our draft report.

OIG Conclusion

The Assistant Secretary generally agreed with our recommendations. His response proposed corrective actions for Recommendations 1, 2, 4, 5, and 6, but provided no completion milestones. As a result, these recommendations remain unresolved pending estimated completion dates.

He suggested further discussion with the OIG regarding possible options for including an outside party on the Fatality Review Committee (Recommendation 3). This recommendation remains unresolved pending a specific corrective action and an estimated completion date.

Finally, the response provided insufficient information to determine whether MSHA would develop a system to assure that facts and information used to reach chargeability decisions are supported by documentation (Recommendation 7). This recommendation will remain unresolved pending a specific corrective action and an estimated completion date.

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U.S. Department of Labor

Office of Inspector General
Washington, D.C. 20210

Assistant Inspector General's Report

Mr. Richard E. Stickler
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In response to a request from Congressman George Miller, Chairman of the House Committee on Education and Labor, the Office of Inspector General (OIG) conducted a performance audit of the Mine Safety and Health Administration's (MSHA's) process for deciding whether reported fatalities were chargeable to the mining industry. Specifically, we performed work to determine whether MSHA's process and controls to ensure that its decisions regarding whether a reported fatality was chargeable to the mining industry were consistent, supported by appropriate evidence, and in accordance with Federal regulations and MSHA policies. The audit included decisions made by both the Office of Coal Mine Safety and Health (CMS&H) and the Office of Metal/Nonmetal Safety and Health (MNM).

We reviewed a sample of 152 fatality decisions, both chargeable and non-chargeable, made between January 1, 2004 and December 31, 2006. We also reviewed 24 fatality decisions finalized between February 9, 2007 and June 30, 2007 during which MSHA's revised policy was in place. We did not identify instances in which similar circumstances produced different decisions or instances in which a chargeability decision was clearly contradicted by available evidence. However, we did identify instances of non-compliance with MSHA policies and control and procedural weaknesses that increased the risk that such errors could occur. We found that investigators and decision-makers lacked independence, investigative procedures were inconsistent, and investigative documentation was sometimes lacking. Reliable and well documented chargeability decisions improve miner safety and health by increasing MSHA's ability to identify work-related mine fatalities and utilize causal information to prevent similar occurrences.

Mine operators are required by law to report to MSHA any fatality that occurs on their property. MSHA investigates these instances to determine whether the death should be chargeable to the mine industry and included in MSHA's annual statistics regarding fatality rates at mines.

Investigations of reported fatalities are conducted by MSHA personnel in the local district office. Based on this investigation, an MSHA District Manager makes the initial chargeability determination and reports that decision to MSHA Headquarters in a written memorandum. Prior to February 9, 2007, all non-chargeable decisions were reviewed by the appropriate MSHA Administrator (CMS&H or MNM) who issued the final determination. As of February 9, 2007, a revised policy required all non-chargeable decisions to be reviewed by a Fatality Review Committee composed of three senior level MSHA officials having no direct enforcement responsibilities and a representative from the Department of Labor's (DOL's) Office of the Solicitor. Additional background information is contained in Appendix A.

We conducted this performance audit in accordance with generally accepted government auditing standards for performance audits. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a sufficient basis for our findings and conclusions based on our audit objectives. Our audit scope, methodology and criteria are detailed in Appendix B.

Objective - Did MSHA's process and controls ensure that its decisions regarding whether a reported fatality was chargeable to the mining industry were consistent, supported by appropriate evidence, and in accordance with Federal regulations and MSHA policies?

No. While our review did not identify chargeability decisions that were inconsistent, clearly contradicted by available evidence, or not in compliance with Federal regulations, procedural and control weaknesses created a risk that these conditions could occur. This was because (1) investigators and decision-makers lacked independence, (2) the investigative procedures were inconsistent, and (3) investigative documentation was sometimes lacking. In addition, under MSHA's former policy, (4) not all second-level reviews were completed. Reliable chargeability decisions improve miner safety and health by increasing MSHA's ability to identify work-related mine fatalities and utilize causal information to prevent similar occurrences.

Results and Findings

Finding 1 - Investigators and Decision-makers Lacked Independence without Effective Compensating Controls

MSHA investigators involved in conducting fatality investigations and MSHA management personnel responsible for making and reviewing chargeability determinations lacked independence. Independence refers to an individual's freedom from external control or influence that could impair the ability to act impartially. Independence is impaired when a person has a personal interest sufficient to influence or appear to influence the objective exercise of his or her official duties. Impairments to

independence presented an increased risk that an investigator or manager could influence a fatality investigation or chargeability decision to affect a favorable outcome. This could reduce the reliability of the investigative process and decisions.

The personal performance appraisals for MSHA inspectors and District Managers were tied to MSHA performance outcomes related to reducing chargeable fatalities. This could influence the actions of these individuals to minimize chargeable fatalities. Fewer chargeable fatalities would produce a lower mining fatality rate. In turn, a lower mining fatality rate could create a better performance rating. In addition, the public's perception of MSHA's overall organizational performance may have been linked, in part, to increases or decreases in the mining fatality rate. As a result, the perceived independence of all MSHA personnel would be impaired to varying degrees.

When circumstances or realistic limitations make complete independence impractical, compensating controls[1] can reduce the associated risk by increasing the likelihood that incorrect or improper actions are identified. Controls aimed at increasing independence throughout the investigative and decision-making process or controls aimed at increasing the likelihood that incorrect decisions will be detected are critical to the impartial determination of chargeable fatalities.

Independence of Investigators

MSHA's response to a reported fatality could include a "first responder" and an accident investigation team. The first responder was responsible for securing the scene and issuing any appropriate enforcement orders. The accident investigation team was responsible for conducting a physical examination of the accident scene, interviewing witnesses, and analyzing and testing of equipment or material which may have been involved in the accident. Maximizing the independence of these individuals was critical to the actual and perceived reliability of the information collected. MSHA's policy on the level of independence required for personnel involved in the investigation of fatalities was incomplete, contained inappropriate exceptions, and was often not followed. This increased the risk that chargeability decisions would not be impartial.

The MSHA's Accident/Illness Investigations Procedures Handbook (Handbook) did not address the independence of first responders. To secure the quickest possible response, MSHA officials stated that the first responder was frequently the MSHA inspector assigned enforcement responsibility for the reporting mine. Both CMS&H and MNM management stated that if the first responder made an initial decision that the fatality was likely to be non-chargeable, that individual was often the only MSHA investigator assigned to the accident scene. As a result, an individual who did not meet MSHA's independence standard often influenced the scope and manner of the subsequent investigation by making the initial chargeability decision.

[1] A compensating control limits the severity of a deficiency and prevents it from rising to the level of a significant deficiency or material weakness. Although compensating controls mitigate the effects of a deficiency, they do not eliminate the deficiency.

Even if the first responder decision that the fatality may be chargeable, the extent of his/her subsequent duties was unclear. MSHA policy did not limit or define the specific role and responsibilities of the first responder to a fatality. As a result, those roles and responsibilities varied among districts. Most districts agreed that the first responder was responsible for securing the accident scene and issuing any appropriate enforcement orders. However, the supplemental responsibilities of first responders varied among districts and could have included taking photographs, taking preliminary witness statements, working with the coroner, taking measurements, conducting interviews, and talking to paramedics and local authorities. These activities suggested that first responders may have participated in investigative activities without the level of independence prescribed in MSHA's policy.

The Handbook only addresses the independence of accident investigation teams:

> *Neither the team leader nor the team members should have been responsible for inspections or plan approvals within the previous 6 months at the mine where the fatal accident occurred.*

But the Handbook also provided a significant exception to this standard:

> *If a District Manager is reasonably certain that a death at a mine is the result of natural causes, the investigation to gather information for a chargeability determination may be conducted by immediately available personnel. In such cases, it will be appropriate to assign the investigation to local field personnel who may regularly be involved in inspection activities at the mine.*

This exception granted significant discretion to the District Managers to make the initial determination related to the chargeability of a fatality. However, the District Managers' independence was impaired because their individual performance assessments were connected to the mining fatality rate in their districts. This created a potential incentive to determine fatalities were non-chargeable. The Handbook's exception to the independence protocol was therefore available for those cases where there was the greatest risk that fatalities would be misclassified, due to the incentives created by the District Managers' individual performance standards to conclude fatalities were non-chargeable.

We examined a sample of 31 chargeable cases during calendar year (CY) 2004-2006 to test the independence of accident investigation team leaders and members. In 13 cases (42 percent), the lead investigator, team members, or both, did not meet MSHA's independence standard.

Both CMS&H and MNM management stated that the lead investigator should have always been independent for chargeable fatalities. However, only MNM management stated that this should also have been the case for other members of the accident investigation team. CMS&H management indicated that they did not require districts to

ensure that other team members were independent. They acknowledged that practical limitations or certain situations, such as the small size of a district or the need to enlist a specialist who had worked at the mine where a fatality occurred, sometimes prevented CMS&H districts from adhering to this MSHA policy.

Independence of Decision Makers

Independence concerns also existed at various points in the decision making process for chargeable fatalities. While MSHA recently took steps to enhance the independence of key decision makers, its efforts did not go far enough to alleviate possible perceptions that its chargeability determinations could be susceptible to improper influence.

Based on the results of accident investigations, District Managers provided MSHA Headquarters with memoranda documenting their chargeability decisions. These decisions could have been influenced by a desire to produce a lower mining fatality rate. Since this rate was a factor in each District Manager's personal performance assessment, a lower rate could have resulted in a better performance appraisal.

All non-chargeable fatality decisions were reviewed at MSHA Headquarters. This secondary review provided some compensating control over weaknesses in the District Managers' independence. However, the reviewers themselves were not free of independence impairments.

Prior to February 9, 2007, the secondary review was conducted by the appropriate Administrator (CMS&H or MNM) with input from designated senior staff[2]. At the Administrator's discretion, a Fatality Review Committee composed of four MSHA enforcement officials[3] could also review the case and provide input to the Administrator. The Administrator's decision was final. However, since the performance of the Administrators' offices were measured in part by the mining fatality rate, they and other MSHA employees directly involved in its enforcement activities lacked the independence to review chargeability decisions.

On February 9, 2007, MSHA's Assistant Secretary modified the review protocol by removing the Administrators from the process and changing the membership of the Fatality Review Committee. The revised policy required that all non-chargeable decisions be reviewed by a Fatality Review Committee composed of three MSHA officials from non-enforcement offices[4] and a representative from DOL's Office of the Solicitor. The Fatality Review Committee's determination is final. Since the current members of the Fatality Review Committee had no direct enforcement responsibility,

[2] The designated senior staff included the Accident Investigation Program Manager, the Chief of Health, the Chief of Safety, the Administrator's Special Assistant, and the Deputy Administrator.
[3] Prior to February 9, 2007, the Fatality Review Committee was composed of the Chief of the Division of Mining Information Systems, the Chiefs of Safety for both CMS&H and MNM, and a District Manager from a district other than the one where the fatality occurred.
[4] As of February 9, 2007, the MSHA officials on the Fatality Review Committee were from the following offices: Program Evaluation and Information Resources, Technical Support, and Educational Policy and Development.

they possessed greater independence than under the old policy. However, they are still DOL employees. As a result, there remained at least a perception that they lacked the independence needed to make unbiased decisions regarding the chargeability of fatalities.

Effectiveness of Compensating Controls

MSHA had implemented few controls to minimize the risk associated with independence impairments. Supervisory oversight and secondary review are potential compensating controls. But in this case, those functions were performed by individuals who themselves have some level of independence impairment. Risks related to an actual or perceived lack of independence could be reduced by involving one or more non-MSHA employees in the investigative or decision making processes.

Providing the ability for independent parties to review the results of the process could also minimize the perception that the process was improperly influenced. Currently, MSHA provides public information related only to chargeable fatality decisions. No information is voluntarily provided about non-chargeable decisions. Increasing the transparency of the process and its result would increase the probability that errors, whether intentional or unintentional, would be detected. This would, in turn, increase confidence in the validity of the process.

Recommendations

The OIG recommends that the Assistant Secretary for MSHA establish the following compensating controls to lessen the potential risk from independence impairments:

1. Develop and implement a standard protocol for first responders.

2. Require that the initial chargeability determination for all reported fatalities be made by an individual outside of the district in which the fatality occurred.

3. Include a member on the Fatality Review Committee who is not a current or former employee of either DOL or a mine operator.

4. Publish summary information on all reported fatalities, both chargeable and non-chargeable.

Agency Response

For recommendation 1, MSHA stated it will amend its Accident/Illness Investigations Procedures Handbook and issue related policy guidance to more clearly define the roles and responsibilities of first responders. This will include prohibiting first responders from making initial chargeability determinations, as well as appropriate evidentiary and documentation requirements.

For recommendation 2, MSHA stated it will instruct District management to transmit all available factual information and evidence to MSHA Headquarters without making an initial chargeability determination or recommendation. This instruction will also be included in its revised Accident/Illness Investigations Procedures Handbook.

For recommendation 3, MSHA stated there is merit in having an outside party serve on the Fatality Review Committee, and that a member from outside of DOL with scientific and/or medical expertise could further improve the chargeability review process in those cases where the cause of death is particularly complex. MSHA will explore inviting a party outside of DOL to participate on the Fatality Review Committee.

For recommendation 4, MSHA stated that it will include summary information on non-chargeable fatalities on its web page. Additional options will also be considered.

OIG Conclusion

We consider the proposed corrective actions for Recommendations 1, 2, and 4 to be sufficient. However, these recommendations will remain unresolved pending completion milestones. The recommendations will be closed when MSHA provides documentation to show that appropriate revisions have been made to the Accident/Illness Investigations Procedures Handbook and that non-chargeable fatality information has been posted on its web site.

Recommendation 3 is unresolved pending receipt of a specific proposal and milestone date to include a member on the Fatality Review Committee who is not a current or former employee of either DOL or a mine operator.

Finding 2 - Scope and Method of Accident Investigations Were Inconsistent

MSHA's scope and method of investigating fatalities were inconsistent. The type, amount, and detail of the information available to determine a fatality's chargeability varied. This occurred because MSHA did not require that the same procedures be performed or the same information be gathered for all reported fatalities. Instead, the investigative scope and method was defined by a preliminary judgment about the "likely" final determination. The lack of a standard protocol to investigate all reported fatalities presented an increased risk that chargeability decisions were based on incorrect or incomplete information. As a result, MSHA lacked adequate assurance that non-chargeable fatality determinations were correct, consistent, and in compliance with Federal regulations and MSHA policy.

The Handbook stated that the primary purpose of an accident investigation was to identify the root cause of the accident so that recommendations could be made to prevent similar occurrences in the future. Determining the chargeability of related fatalities was a secondary result of the investigation. MSHA had standard procedures for conducting accident investigations.

The procedures stated, in part:

- As the investigation progresses the investigators will inevitably form conceptions about the causes of the accident. However, a complete and thorough accident investigation must always be structured to properly identify, explore, and develop these root causes in the interest of accident reduction or elimination. Rather than acknowledging or accepting them on their own merit, the investigator must give full consideration to related or underlying conditions, practices, or circumstances.

- Any information relevant to the accident, whether it be in the form of physical evidence such as methane detectors, documentary evidence such as records and plans, or testimony taken at the investigation, shall be collected and preserved in a systematic manner and stored at a central location designated by the investigation team leader.

However, MSHA did not apply these procedures consistently for all fatality investigations. MSHA's investigation efforts were based on a preliminary chargeability determination made at the district level. If the District Manager initially judged that a reported fatality was *likely to be chargeable*, a complete accident investigation was conducted. However, if the District Manager's initial judgment was that the fatality was *likely to be non-chargeable,* a more limited, less detailed investigation was often conducted. As previously discussed (see p. 8), this initial judgment by the District Manager may have also affected the independence level of the investigator(s) assigned.

Defining the investigative scope and methods based on an assumed outcome increased the risk that relevant investigative information would not be collected. The District Manager's initial judgments were based on limited and potentially unverified information. If that judgment was later shown to be incorrect, it may have been difficult or impossible to expand the scope of the original investigation. For example, both CMS&H and MNM district management stated that they routinely assessed "contributory work-related factors" such as overexertion, electrocution, or environmental factors (e.g., extreme temperatures, noxious gases, etc.) in determining the root cause of chargeable fatalities. But since defining a root cause was not required for non-chargeable fatality cases, the requirement to evaluate these areas would not apply to these cases. However, if information gathered during the latter investigation cast doubt on the initial determination of "non-chargeable," it may not have been possible to complete the required assessment of environmental factors (e.g., taking air temperatures or testing for gases) because of the passage of time. As a result, the final chargeability determination may have been based on less than complete information.

The scope and method of a fatality investigation should not be based on a pre-determination of the outcome. The scope and methodology for all fatality investigations should be consistent. Conducting a thorough, standardized investigation would allow subsequent conclusions, whether about the cause of an accident or the chargeability of a fatality, to be based on the most complete and accurate information.

Recommendations

The OIG recommends that the Assistant Secretary for MSHA:

5. Establish and require a standard investigative protocol for all reported fatalities.

6. Require that a chargeability determination be made only at the conclusion of a complete investigation and considering all pertinent and available evidence.

Agency Response

For recommendation 5, MSHA stated it will amend the Accident/Illness Investigations Procedures Handbook to more clearly define a standard investigative protocol for all fatality investigations in a manner which addresses the findings. However, MSHA stated the level of detail and complexity of a fatality investigation, whether chargeable or non-chargeable, may vary based on the nature of the fatality and the cooperation of outside parties over which MSHA does not have absolute control (e.g., family members, coroners offices, etc.).

MSHA stated its proposed corrective actions pursuant to recommendations 2 and 5 will also address recommendation 6.

OIG Conclusion

We consider the proposed corrective actions for Recommendations 5 and 6 to be sufficient. However, the recommendations will remain unresolved pending completion milestones. The recommendations will be closed when MSHA provides documentation to show that appropriate revisions have been made to the Accident/Illness Investigations Procedures Handbook.

Finding 3 - Relevant Investigative Tasks and Findings Were Not Always Documented

For non-chargeable fatalities, information presented in MSHA's chargeability memoranda was not always supported in the Accident Investigation Administrative File. Documentation deficiencies related to (a) investigative tasks stated to have been performed and (b) investigative results presented in support of the final decision. While the facts presented in the memoranda supported the decision reached, the validity of some or all of those facts could not be confirmed based on documentation in the file. Inadequate documentation of investigative scope or results created the possibility that decisions were based on incorrect or incomplete information. It also reduced the ability of a supervisory or third-party review to confirm the decision. As a result, MSHA had less assurance that non-chargeable fatality decisions were correct, consistent, and in compliance with Federal regulations and MSHA policy.

The Handbook required:

- All actions relevant to the accident must be documented so that a chronology of the events which occurred before, during and, where appropriate, after the accident, can be developed.

- Detailed records shall be maintained of all observations and information obtained to document the investigation.

- Copies of witness statements shall be included in the official accident investigation file and shall be made available to the public at the close of the investigation, unless a witness has requested confidentially.

- Investigators must obtain a copy of the report of autopsy, if one was performed, and a copy of the death certificate. These documents should be reviewed before the formal report is finalized in order to ensure that the findings and conclusions of the accident investigators are consistent with the official cause of death.

- Where the cause of death noted in the autopsy report and/or death certificate is inconsistent with the findings of the accident investigators, the inconsistencies must be reconciled or explained in the report of accident investigation.

Our review of a sample of 79 out of 185 non-chargeable fatality cases during CY 2004-2006 identified examples in which MSHA personnel did not adequately document all stated investigative activities. Six decision memoranda stated that contributory factors (e.g., physical exertion, road grades and conditions, equipment malfunctions or failures, etc.) had been evaluated. However, none of these Accident Investigation Administrative Files contained documentation to support the nature or results of these evaluations. The absence of this documentation prevents a secondary or independent reviewer from confirming the extent and appropriateness of the investigative activities or the validity of information based on these activities.

Our review of the same sample of cases showed that Accident Investigation Administrative Files did not consistently contain investigator notes, witness interviews or statements, medical evidence, or other documentation to support facts described in the related chargeability memoranda. Of the 79 cases reviewed, 17 (22 percent) memoranda contained information considered in non-chargeable decision that was not supported by documentation in the file as summarized in Table 1 below:

Table 1
Non-chargeable Fatality Decisions
Lacking Documentation of Investigative Facts

	CMS&H	MNM	Total
Cases Reviewed	36	43	79
Exceptions Noted	11	6	17
Exception Rate	31%	14%	22%

Source: OIG analysis of chargeability documentation provided by MSHA

For example:

- A chargeability memorandum concluded that a miner's death was the result of heart attack and was therefore non-chargeable. In support of this conclusion, the memorandum stated that the victim had complained of chest and stomach pains prior to collapsing. However, the Accident Investigation Administrative File did not contain witness interviews or statements to support such complaints from the victim.

- A chargeability memorandum concluded that a miner's death was the result of a heart attack and was therefore non-chargeable. In support of this conclusion, the memorandum stated that the victim had stated that he was not feeling well prior to collapsing. However, the Accident Investigation Administrative File contained only interviews with the mine operator and an equipment operator, neither of whom was present at the time of the incident.

Without adequate documentation of facts used to support chargeability determinations, those determinations are subject to challenge.

Recommendation

The OIG recommends that the Assistant Secretary for MSHA:

7. Establish a system to assure that all facts and information used to reach a chargeability decision are supported by documentation.

Agency Response

For Recommendation 7, MSHA stated that documentation requirements will be addressed in the corrective actions pursuant to Recommendations 5 and 6.

OIG Conclusion

It is not clear that the corrective actions proposed for Recommendations 5 and 6 are sufficient to assure that the facts and information used to make chargeability decisions will be supported by documentation. We maintain that MSHA should establish a quality

control system to ensure all facts and information used to reach a chargeability decision are supported by documentation. This recommendation remains unresolved pending more specific corrective action and a completion milestone.

Finding 4 - Under MSHA's Former Policy, Second-Level Reviews Were Not Always Performed

MSHA Headquarters officials did not consistently perform an evaluation of non-chargeable fatality decisions as required by MSHA's policy prior to February 2007. MSHA's revised policy corrected this previous deficiency. Secondary review could have mitigated concerns about the independence of the initial decision-maker, identified potential errors, and assured consistency. Omission of these secondary reviews voided those benefits.

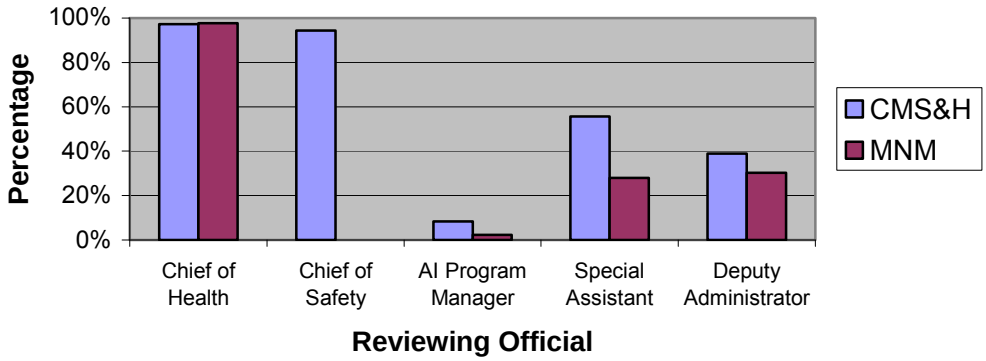
Under the MSHA policy in place prior to February 2007, all non-chargeable fatality determinations by District Managers had to be reviewed and concurred in by the appropriate Administrator. Prior to the Administrator's review, the policy stated that five senior staff would review the case and provide their input. Those officials included the Accident Investigation (AI) Program Manager, the Chief of Health, the Chief of Safety, the Administrator's Special Assistant, and the Deputy Administrator.

Only 1 of 79 cases (1 percent) in our sample had been reviewed by all of the designated officials. In fact, most (23 of 36; 64 percent) of the CMS&H cases in our sample had been reviewed by only one or two of the officials; 2 of 36 cases (6 percent) had not been reviewed by any senior staff. Most (25 of 43; 58 percent) of the MNM cases in our sample had been reviewed by four of the designated officials and all cases had been reviewed by at least two officials.

Both CMS&H and MNM officials stated that they had informally modified the policy to reduce the number of reviewers. CMS&H management stated that only the AI Program Manager, Special Assistant, and Deputy Administrator performed these reviews. MNM management stated that reviews were not consistently performed by the Chief of Health because that position was vacant during portions of our audit period.

An analysis of the audit sample generally confirmed these assertions as summarized in Table 2 below:

Table 2
Summary of Missing Senior Staff Reviews



Source: OIG analysis of chargeability documentation provided by MSHA

As senior officials, these designated reviewers each provided a level of expertise and experience to the review of non-chargeable fatality decisions. Omitting one or more of these officials from the review process weakened the assurance provided by this oversight process.

This deficiency has been addressed by the February 2007 changes to MSHA's chargeability process. Under the new policy all non-chargeable decisions from District Managers are automatically reviewed by a Fatality Review Committee composed of three MSHA officials from non-enforcement offices and a representative from DOL's Office of the Solicitor. A review of the 12 non-chargeable fatality cases completed between February 9, 2007 and June 30, 2007, showed that all members of the Fatality Review Committee completed their required reviews on these cases.

Elliot P. Lewis
November 1, 2007

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Appendices

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Appendix A

Background

U.S. Mining Industry

Mining is an inherently dangerous industry with historically high risks of injury and fatality. In CY 2006 there were over 11,000 injuries and 72 mining related deaths. Mining is also critical to the Nation and its economy. Coal produces more than 51 percent of the electricity generated in the United States and is also used for residential and commercial heating, the production of coke for the steel industry, and as a raw material in the chemical industry. Metal and nonmetal products (metal, stone, sand, and gravel) contribute substantially to the construction industry and support the building and maintenance of the Nation's physical infrastructure.

There are approximately 2,100 coal mines located in 27 states that employ 123,000 people. There are approximately 12,450 metal and nonmetal operations located across all 50 states that employ over 225,000 people and produce about 80 minerals and commodities.

During CY 2006, there were 145 reported fatalities at U.S. mining operations. Of these, 72 were determined to be "mining related."

MSHA

MSHA was established in 1978 by the Federal Mine Safety and Health Act of 1977 (Mine Act). The Mine Act transferred the Federal enforcement program from the Department of the Interior to the Department of Labor (DOL) and placed coal mines and metal/nonmetal mines under a single law.

As a result of the increase in coal mine fatalities in early CY 2006, the Mine Improvement and New Emergency Response (MINER) Act amended the Mine Act on June 15, 2006. The MINER Act includes provisions for updated emergency response plans, increased training and availability of rescue teams, improved communication technology, and training programs for miners and mine inspectors.

MSHA is responsible for administering the provisions of both the Mine Act and the MINER Act. MSHA's primary goals are (1) enforcing compliance with mandatory safety and health standards to eliminate fatal accidents; (2) reducing the frequency and severity of nonfatal accidents; (3) minimizing health hazards; and (4) promoting improved safety and health conditions in the nation's mines. MSHA's budgeted operating costs totaled $278 million for Fiscal Year (FY) 2007 and $278 million for FY 2006.

The Offices of Coal Mine Safety and Health (CMS&H) and Metal/Nonmetal Safety and Health (MNM) are responsible for enforcing mining laws and regulations at all mines. This includes developing safety and health standards; reviewing mine operators' mining

plans and training programs; conducting inspections; investigating fatal and serious nonfatal accidents; investigating complaints of hazardous conditions reported by miners; issuing citations and orders for observed violations; and conducting safety and health conferences with mine operators. CMS&H administers 11 districts and 44 associated field offices with staff totaling approximately 1,175. Its budgeted operating costs totaled $120 million for FY 2007and $117 million for FY 2006. MNM administers 6 districts and 47 associated field offices with staff totaling approximately 540. It's annual budgeted operating costs totaled approximately $70 million for FY 2007 and $68 million for FY 2006.

MSHA's Process for Determining Chargeable Deaths

The Federal regulations under 30 CFR Parts 45 and 50 require mine contractors and operators to report all fatalities to MSHA. However, the regulations do not specify how MSHA is to determine whether a fatality should be chargeable to the mine industry and included in MSHA's reported statistics.

The criteria for determining the chargeability of fatalities was established in MSHA guidelines[5] developed for internal use. The guidelines stated that a fatality was chargeable if the incident resulted in a death on mine property and from mine related work or the death was caused by mining activities. Fatalities on mine property resulting from (a) natural causes (e.g., heart attack); (b) personal impairment not complicated by or resulting from their work activity; (c) trespass; (d) homicide; or (e) suicide were not chargeable.

In January 2007, MSHA initiated and completed an in-house review of how it determined which deaths were counted in its yearly total of mining fatalities. As a result, on February 9, 2007, MSHA's Assistant Secretary revised the procedure for making chargeability decisions.

MSHA's Decision Making Process – Prior to February 9, 2007

When a mine operator reported a fatality, MSHA conducted an investigation and provided the results to the District Manager. If the District Manager determined that a fatality should not be charged to the mining industry, a memorandum report[6] requesting a chargeability occurrence determination was submitted to the respective MSHA Administrator (CMS&H or MNM). The Deputy Administrator, Special Assistant to the Administrator, AI Program Manager, Chief of the Safety Division, and Chief of the Health Division were to review the investigative findings and provide input prior to the Administrator's chargeability decision.

[5] MSHA's Accident/Illness Investigation Procedures Handbook, Release 2 (February 2004).
[6] The memorandum report must describe in detail the activities of the person prior to the time of death and any related information which addresses chargeability. For deaths involving natural causes, supporting documents must include a copy of the death certificate and, if possible, the autopsy report, the coroner's report, or the statement of an attending physician. In addition, any information that clarifies physical stress, prior medical history, or medication should be included in the report.

If the decision was not clear, the Administrator could request that MSHA's Fatality Review Committee provide an opinion on whether the death was chargeable. The Fatality Review Committee was composed of (1) the Chief, Office of Program Policy Evaluation within the Directorate of Program Evaluation and Information Resources (PEIR); (2 & 3) the Chief of Safety from both CMS&H and MNM; and (4) a District Manager from a district other than the one where the fatality occurred. The opinion of the Committee was provided to the respective MSHA Administrator for review and final decision. If still uncertain, the Administrator could elevate a decision to MSHA's Assistant Secretary for review.

There was no process to appeal a chargeability decision.

MSHA's Decision Making Process – As of February 9, 2007

The changes made to the process for determining the chargeability of fatalities by MSHA's Assistant Secretary (1) removed the responsibility for making final non-chargeable determinations from the Administrators, (2) mandated that all non-chargeable determinations be reviewed and finally decided by the Fatality Review Committee, and (3) revised the membership of the Fatality Review Committee to include three MSHA officials from non-enforcement offices (Program Evaluation and Information Resources, Technical Support, and Educational Policy and Development) and a representative from DOL's Office of the Solicitor. Per the revised policy, "the decision made by MSHA's Fatality Review Committee should be unanimous and will be final."

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Appendix B

Objective, Scope, Methodology, and Criteria

Objective

We performed audit work to address the following question:

- Did MSHA's process and controls ensure that its decisions regarding whether a reported fatality was chargeable to the mining industry were consistent, supported by appropriate evidence, and in accordance with Federal regulations and MSHA policies?

Scope and Methodology

To accomplish our audit objective, we obtained an understanding of MSHA's process and policies and procedures for determining whether reported fatalities were chargeable to the mining industry and of applicable Federal regulations and MSHA policies. We interviewed officials, management, and personnel at CMS&H and MNM headquarters and two district offices and United Mine Workers of America and United Steel Workers representatives. We also sent a standard questionnaire and conducted follow-up telephone interviews with 16 of 17 MSHA district offices[7].

In addition, we used statistical sampling (95 percent confidence level, 15 percent error rate) to test chargeable and non-chargeable fatality determinations from CY 2004-2006 for consistency, appropriate supporting evidence, and compliance with Federal regulations and MSHA policy. We also tested 100 percent of final chargeable and non-chargeable fatality determinations from February 9, 2007 (the date MSHA revised its Chargeability Guidelines) through June 30, 2007 for consistency, appropriate supporting evidence, and compliance with Federal regulations and MSHA policy. We tested a judgmental selection of chargeable fatality determinations from CY 2004-2006 to determine whether the accident investigation team leaders and members were independent in accordance with MSHA policy.

We tested the controls associated with MSHA's process for determining the chargeability of fatalities. We conducted this performance audit in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provided a reasonable basis for our findings and conclusions related to our audit objective.

[7] MNM South Central District office was not asked to complete a questionnaire because sufficient information was obtained during the site visit.

Site Visits

We made site visits to CMS&H and MNM Headquarters in Arlington, Virginia; CMS&H District 4 in Mount Hope, West Virginia; and MNM South Central District Office in Dallas, Texas. We judgmentally selected these locations from among 11 CSM&H and 6 MNM districts based on several factors that included the volume of fatalities that occurred within each district during CY 2004-2006. The sites we selected are shown in Table 1 below:

Table 1
Site Visits

Description	Location	Basis for Selection
CMS&H District 4 (August 20-21, 2007)	Mt. Hope, WV	▪ Highest number of overall and statistically selected non-chargeable coal mine fatalities for CY 2004-2006.
MNM South Central District (August 16-17, 2007)	Dallas, TX	▪ High number of overall and statistically selected non-chargeable metal and nonmetal mine fatalities for CY 2004-2006.

Source: OIG analysis of fatality determinations and mining data (i.e., production, number of miners) provided by MSHA.

At each district, we reviewed a statistical sample of fatality files and interviewed key personnel using a standard set of questions related to our audit objective. We conducted site visits from April 2007 through August 2007.

Questionnaire

In addition to our site visits, we sent a standard questionnaire to management in 16 of 17 MSHA districts to obtain their perspective and feedback on the chargeability determination process in their respective district and in Headquarters. We used questions similar to our onsite interviews to obtain comparable information. We did not administer a questionnaire to South Central district and instead placed reliance on information collected during our onsite interviews with district management and staff. We conducted telephone interviews and email follow-up with each district[8].

Evaluation of Fatality Determinations

In addition to the interviews, questionnaire, and site visits discussed above, to determine whether chargeable fatality decisions were consistent, supported by appropriate evidence, and in accordance with Federal regulations and MSHA policies, we obtained a walkthrough of the process for making chargeable fatality decisions,

[8] We did not conduct a follow-up telephone interview with District 9 per MSHA management's request. Multi-fatality accidents at the Crandall Canyon mine in Utah during August 2007 heavily impacted this District's resource availability and its ability to respond to audits.

analyzed the process, identified control points and deficiencies, and reviewed internal reports for any related issues.

We also selected a statistical sample of chargeable and non-chargeable fatality determinations from CY 2004-2006 to test for consistency, appropriate supporting evidence, and compliance with Federal regulations and MSHA policies:

	Chargeable		Non-Chargeable	
	Population	Sample Tested	Population	Sample Tested
CMS&H	97	38	70	36
MNM	87	35	115	43
Totals	184	73	185	79

Source: OIG sample plan

We tested 100 percent of final chargeable and non-chargeable fatality determinations from February 9, 2007 through June 30, 2007 for consistency, appropriate supporting evidence, and compliance with Federal regulations and MSHA policies:

	Chargeable	Non-Chargeable
CMS&H	6	1
MNM	7	10
Totals	13	11

Source: OIG sample plan

We judgmentally selected 31 of our statistical sample of 73 chargeable fatality determinations from CY 2004-2006 to determine whether the accident investigation team leaders and members were independent in accordance with MSHA policies.

Criteria

We used the following criteria to perform this audit:

- Federal Mine Safety and Health Act of 1977 (Section 103)
- Mine Improvement and New Emergency Response Act of 2006 (MINER ACT)
- MSHA Title 30, Code of Federal Regulations, Part 50
- MSHA Accident/Illness Investigations Procedures Handbook, 2004
- GAO's Standards for Internal Control in the Federal Government, 1999

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Appendix C

Acronyms and Abbreviations

AI	Accident Investigations
CMS&H	Coal Mine Safety and Health
CY	Calendar Year
DOL	Department of Labor
FY	Fiscal Year
Handbook	MSHA Accident/Illness Investigations Procedures
MNM	Metal/Nonmetal Safety and Health
MSHA	Mine Safety and Health Administration
OIG	Office of Inspector General

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Appendix D

Agency Response

U.S. Department of Labor

Mine Safety and Health Administration
1100 Wilson Boulevard
Arlington, Virginia 22209-3939

INFORMATION

NOV 13 2007

MEMORANDUM FOR ELLIOT P. LEWIS
Assistant Inspector General
for Audit

FROM: RICHARD E. STICKLER
Assistant Secretary for
Mine Safety and Health

SUBJECT: Response to OIG Draft Audit Report No. 05-08-002-06-001 "MSHA's Process for Determining the Chargeability of Reported Fatalities Would Benefit from Additional Controls"

Thank you for the opportunity to review your draft audit report. Your audit provides valuable context to our stakeholders regarding chargeability decisions made by MSHA officials, as well as actions MSHA can take to further enhance public confidence in the chargeability determination process. Most notably:

- None of the 152 chargeability decisions reviewed by your auditors during their review period of January 1, 2004 thru December 31, 2006 were identified as inconsistent or contradicted by available evidence. Similarly, none of the 24 chargeability decisions reviewed after MSHA revised its procedures for chargeability determinations in February 2007 were found to be inconsistent or contradicted by available evidence. This clearly validates MSHA's current process and procedures.

- Your audit did not find that *actual* chargeability decisions made by MSHA officials resulted from or were influenced by independence impairments, bias, or conflicts of interest. However, you did conclude that chargeability determinations, made by MSHA, or indeed any DOL official, could nonetheless be *perceived as* or *at risk of* independence impairments or bias.

Attached is further commentary on your audit findings within the context of your report recommendations. If you have any questions, please contact Ken Bullock (202) 693-9778 or Brent Carpenter (202) 693-9782.

Attachment

You can now file your MSHA forms online at www.MSHA.gov. It's easy, it's fast, and it saves you money!

Response to OIG Draft Audit Report No. 05-08-002-06-001

OIG Recommendation No 1: Develop and implement a standard protocol for first responders.

MSHA Response: Your audit did not demonstrate that MSHA's first responders acted inappropriately to influence fatality investigations or chargeability determinations. However, to address potential risk and improve consistency, MSHA will amend the Accident/Illness Investigations Procedures Handbook and issue related policy guidance to more clearly define the roles and responsibilities of first responders. This will include a prohibition on making initial chargeability determinations by first responders (recommendation No. 2). In addition, pursuant to recommendations No. 5 and No. 7, this will also include appropriate evidentiary and documentation requirements.

OIG Recommendation No 2: Develop policies and procedures to require that the initial chargeability determination for all reported fatalities be made by an individual outside of the district in which the fatality occurred.

MSHA Response: Your audit did not attempt to quantify the degree of risk (likelihood) that District personnel would manipulate the chargeability determination process either in their own self-interest (performance appraisals), or because they are in the DOL/MSHA chain of command. We believe that this risk is quite low, a contention supported by your findings which did not find that any manipulation occurred. Nonetheless, to address this potential risk, District management will be instructed to transmit all available factual information and evidence to MSHA headquarters without making an initial chargeability determination or recommendation. This instruction will also be included in MSHA's revised Accident/Illness Investigations Procedures Handbook.

OIG Recommendation No 3: Include a member on the Fatality Review Committee who is not a current or former employee of either the Department of Labor or a mine operator.

MSHA Response: Your recommendation is intended to address the perception that Fatality Review Committee members may act in a biased manner because they are DOL employees. While we do not believe members of the Fatality Review Committee are biased when making chargeability decisions (and your audit did not find evidence of actual bias) the idea of an outside party serving on the Fatality Review Committee has merit. Although not discussed in your report, a member from outside DOL with scientific and/or medical expertise could further improve the chargeability review process in those cases where the cause of death is particularly complex. MSHA would like to discuss options with the OIG as we explore inviting a party outside of DOL to participate on the Fatality Review Committee.

1

OIG Recommendation No 4: Publish summary information on all reported fatalities, both chargeable and non-chargeable.

MSHA Response: Summary information on non-chargeable fatalities will be included on MSHA's web page. Additional options will also be considered.

OIG Recommendation No 5: Establish and require a standard investigative protocol for all reported fatalities.

MSHA Response: MSHA will amend the Accident/Illness Investigations Procedures Handbook to more clearly define a standard investigative protocol for all fatality investigations in a manner which addresses your findings. That said, the level of detail and complexity of a fatality investigation, whether chargeable or non-chargeable, may vary based on the nature of the fatality and the cooperation of outside parties over which MSHA does not have absolute control (e.g. family members, coroners offices, etc.)

OIG Recommendation No 6: Require that a chargeability determination be made only at the conclusion of a complete investigation and considering all pertinent evidence.

MSHA Response: Your audit did not demonstrate that investigations were incomplete to the extent that chargeability determinations were made either prematurely or in error, or that pertinent evidence was ignored during investigations. It did, however, suggest that there can be more standardization and uniformity in the investigative process.

Our corrective actions pursuant to recommendations No. 2 and No. 5 will address this recommendation

OIG recommendation No 7: Establish a system to assure that all facts and information used to reach a chargeability decision are supported by documentation.

MSHA Response: Documentation requirements will be addressed in our corrective actions pursuant to recommendations No. 5 and 6.

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