June 11, 2008

MEMORANDUM FOR RICHARD E. STICKLER
Acting Assistant Secretary for
Mine Safety and Health

THROUGH: CHARLES J. THOMAS
Director, Office of Accountability

FROM: ARLIE A. WEBB
JERRY KISSELL
Accountability Specialists

SUBJECT: MSHA Office of Accountability Audit, Boulder City, Nevada, Field Office, and related mine files

Introduction

This memorandum summarizes the Office of Accountability audit of the subject mine and field office. Audit subjects included MSHA field activities, level of enforcement, Field Activity Reviews (FARs), MSHA supervisory and managerial oversight, mine plans, conditions and practices at the mine, and related mine files. The audit was conducted during the week of by Jerry Kissell and Arlie A. Webb. Positive findings and issues requiring attention are included in this audit report.

Overview

The primary reasons for this audit were based on data indicating:

1. A sharp decline in the level of enforcement. (There were a total of 24 issuances in CY 2006, 8 issuances in CY 2007, and only 4 issuances in CY 2008).

2. A continuing, steep rise in the NFDL incident rate, from 6.05 in CY 2006 to 31.88 in CY 2007; and currently 36.98 for October-December quarter when the national average is 1.63 for the same October-December quarter.

3. There were three accidents related to slips, falls, or handling of materials since June of 2007.

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The audit revealed several positive findings related to MSHA activities, such as documentation indicating complete inspection of the mine, and the identification and discussion of root cause(s) of violations. Likewise, there were several positive findings noted regarding the mine operator’s efforts, such as housekeeping, control of dust related to the plant and roadways, and hearing protection.

There were also issues noted at the field office that will require corrective actions, such as the need to recognize inadequate or missing guards, efficient use of supervisory time, calibration of detection equipment, and properly addressing the hazards associated with coal, coal dust and float coal dust.

Audit Results (Positive Findings)

General

1. Interviews with miners revealed that, although a young work force prevails at this operation, the miners are familiar with their equipment and well versed in all applicable plans and safety precautions.

2. All inspection reports, notes and other documentation indicate the mine was inspected, in its entirety, at least two times per year.

3. During this audit, the field office supervisor and an inspector accompanied the audit team on all activities. All field office personnel conducted themselves in a professional manner and were courteous to the miners, mine management, and the audit team at all times.

4. The field office supervisor, although having been in that position for less than 1 year, has already implemented several changes that are improving the effectiveness and efficiency of that office.

5. Analysis of Time and Activity data for the two most current inspection activities at the subject mine indicate adequate monitoring/mentoring regarding the amount of inspection time spent on “other” activities. Time distribution for the last two complete E01 inspections was as follows:
   
   a. Travel time = 21%
   b. On site time = 60%
   c. Off site time = 9%
   d. Other time = 10%
6. There was a reduction of 2% in the off site time from the previous inspection to the most current one. This is commendable and reflects another advantage of issuing citations while on site.

7. Field Activity Reviews and Accompanied Activity Reports were well documented, and indicated a complete, highly detailed observation of the inspector's work practices, conduct, and use of inspection and safety equipment. Deficiencies observed by the supervisor are documented, corrective actions are listed, and follow up activities indicate corrections are effective. At the time of the audit, the new supervisor had already begun using field activity reviews and accompanied inspections to mentor inspectors and provide a level of enforcement more consistent with the conditions and practices observed at the mines.

8. The supervisor is conducting frequent staff meetings to discuss improving inspection activities, proper level of enforcement, and other procedures implemented by the district in a timely manner.

9. The office's mine files were found to be up to date, and contained all required information.

10. The majority of citations and orders issued by inspectors from this field office are being issued while the inspectors are on-site. This accomplishes several major goals, such as;

   a. ensuring the mine operator is fully aware of the condition or practice requiring correction, enabling management to quickly take proper actions to abate;
   b. giving the inspector the earliest possible opportunity to discuss root cause(s), corrective actions, and potential injuries related to the violation; and
   c. reducing “travel” time and “other” time by the efficient use of on-site time, often preventing a return visit to the mine site just to issue the paperwork. Increased inspector on-site time is, in and of itself, a positive factor in the reduction of accidents and violations.

Record Books

All applicable record books at the plant were well maintained and complete. The inspector conducted a thorough review of plans, postings, and required records.
Audit Results (Issues Requiring Attention)

Enforcement

1. Two belt presses were not provided with guards to prevent persons from contacting or being caught in one or more of several rollers on either side of the press. (See Attachment “A”). Although the belt press was equipped with an emergency stop button and pull cords, these devices only increased the possibility for reducing the severity of an injury, not preventing the injury. According to information gathered during this audit, these belt presses had been in operation for at least one prior inspection.

Action Required - Greater attention to detail is needed during inspection of conveyors, belt presses, and other equipment where there are potential pinch points. Supervisors must monitor and mentor inspectors during inspections, providing corrective criticism when warranted.

2. At the time of this audit, the Boulder City, Nevada, field office did not have any means to calibrate or “bump test” gas detection equipment. Even though the office had two Solaris brand, multi-gas detectors, the necessary equipment to maintain those detectors was not available.

Action Required – Proper calibration and “bump testing” equipment needs to be provided and maintained at each field office to permit adequate and accurate testing of gases, and to allow rapid response to hazard complaints and situations such as low oxygen content, toxic gases, and explosive gases. Note: This issue has been corrected.

3. Numerous Metal Nonmetal operations use coal fired boilers, kilns, or heaters as part of the operation. This frequently involves the storage, belt conveyor transport, crushing, and burning of the coal. During this audit, several requests were made regarding combustibility, explosibility, and other hazards associated with coal, coal dust and float coal dust. Inspection personnel were unsure how to evaluate citations or orders issued for accumulations of coal, coal dust, and/or float coal dust at metal/non metal mines. Some inspectors also indicated a need for training in the proper method for collecting samples of combustible materials for analysis. Due to the 100% inspection plan adopted by Metal Nonmetal in FY2008 the journeyman training in this subject was cancelled and is planned to be given in the next fiscal year.

Action Required – Although the Mine Academy has one or more presentations that address this subject, all MNM inspection personnel that inspect cement plants need to be trained relative to the combustibility, explosibility, and other hazards associated with coal, as well as proper sampling procedures.
Recommendation - The Office of Accountability recommends that an internet based training course, addressing these specific issues in detail, should be developed by the Mine Academy, and all MNM inspection personnel required to complete the course. Using an internet based training course will allow tracking of course completion, thus ensuring that all inspection personnel have had the training. A Web-based training course would also allow inspection personnel to complete this training without the need to spend valuable inspection time traveling to and from the Mine Academy.

Mine Visit

During this audit, there were 7 citations issued (Attachment B) for the following conditions:

1. Citation No. [redacted] was issued under 30 CFR, §56.4101 for failure to post readily visible warning signs (prohibiting smoking or open flames) in the shop.

2. Citation No. [redacted] was issued under 30 CFR, §56.15003 for an employee's failure to wear personal protective equipment (hard toe books) while walking through the shop area.

3. Citation No. [redacted] was issued under 30 CFR, §56.14107(a) for a failure to provide guards for exposed rollers on two belt presses.

4. Citation No. [redacted] was issued under 30 CFR, §56.4500 for failure to perform welding and cutting activities a safe distance away from bulk oil storage tanks near the shop building.

5. Citation No. [redacted] was issued under 30 CFR, §56.1410(a)(2) for failure to properly maintain the parking brake on a front end loader.

6. Citation No. [redacted] was issued under 30 CFR, §56.16005 for failure to properly secure three compressed gas (oxygen) cylinders near the control tower.

7. Citation No. [redacted] was issued under 30 CFR, §56.4603(c) for failure to replace protective caps on compressed gas cylinders (oxygen and acetylene) stored near the control tower.

In each case, the audit team agreed that citations were evaluated properly for gravity, negligence, and the level of enforcement.
MSHA Supervisory/Management Oversight

At the time of this audit, the Boulder City, Nevada, field office did not have an office assistant, clerk or secretary. Standard clerical activities such as receiving and sending mail, monitoring telephones, filing completed reports, providing a contact point for hazardous condition complaints, etc. were being performed by the field office supervisor. This adversely affects the supervisor's ability to properly accompany, monitor, and mentor subordinates.

*Metal and Non-metal has recently hired 26 additional automation clerks nationwide. Boulder City, NV field office was one of the offices selected to receive one of these positions. No action required.*

Peer Reviews

MSHA Headquarters conducted two Peer Review audits during 2007. The audits were conducted in North East District and Rocky Mountain District.

The Western District conducted only one Peer Review during 2007. This review was conducted at the Kent, Washington field office. The Accountability Handbook in effect at that time stated that each district “...will conduct Peer Reviews of selected field offices annually.” (plural)

*Recommendation – Districts should conduct several Peer Reviews throughout each year to promote identification and correction of issues on a continuing basis, rather than one field office per year.*
Attachments

A. Photographs of belt press

B. Citations issued during audit

1. 56.4101
2. 56.15003
3. 56.14107(a)
4. 56.4500
5. 56.14101(a)(2)
6. 56.16005
7. 56.4603(c)
Attachment A - Photographs of Belt Press

Photograph 1 - Both belt presses, showing walkways and access.

Photograph 2 - Showing areas where rollers and pinch points are exposed.
Attachment B - Citations Issued During Audit

Mine Citations/Order

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (24 Hr. Clock)</th>
<th>Citation/Order Number</th>
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<tbody>
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</table>

Readily visible warning signs prohibiting smoking and open flame were not posted in the operators' shop. This shop had several barrels of oil present against the wall and also a hose reel that was inside the shop. Miners were exposed to a burn hazard or smoke inhalation if the contents were ignited and consumed by fire. This is unlikely as there was no visible ignition source present and no spillage from either the barrels or the hose reel.
An employee was observed walking thru the shop with sandals on. Miners could suffer foot injuries from material falling on them. An accident could occur from falling objects, such as blocks of wood, and there are barrels of oil and tires that could cause foot injuries in this shop.

**Attachment B - Citations Issued During Audit (cont.)**

<table>
<thead>
<tr>
<th>Mine Citation/Order</th>
<th>U.S. Department of Labor</th>
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</thead>
<tbody>
<tr>
<td>Mine Citation/Order</td>
<td>Mine Safety and Health Administration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section I - Violation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: Mo Da Yr</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Section II - Violation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mine:</td>
</tr>
<tr>
<td>Condition or Practice</td>
</tr>
</tbody>
</table>

An employee was observed walking thru the shop with sandals on. Miners could suffer foot injuries from material falling on them. An accident could occur from falling objects, such as blocks of wood, and there are barrels of oil and tires that could cause foot injuries in this shop.
The company has two belt presses on site. One was out of service. The other was running and had several exposed rollers that were within 6-8 inches from the edge of the frame. These rollers were traveling at a very slow speed, approx 10-15 revolutions per minute. There was a pull cord on each side of the press by the rollers, and it was tested and functioned. These rollers exposed miners to an entanglement hazard. This area is accessed on an as needed basis for cleaning and maintenance. This is a new piece of equipment and the operator thought the pull cord was adequate for it.

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### Attachment B - Citations Issued During Audit (cont.)

**Mine Citation/Order**

<table>
<thead>
<tr>
<th>Title</th>
<th>U.S. Department of Labor</th>
<th>Mine Safety and Health Administration</th>
</tr>
</thead>
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<tr>
<td>1. Date</td>
<td>Mo Da Yr</td>
<td>12. Time (24 Hr. Clock)</td>
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<tr>
<td>4. Served To</td>
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<tr>
<td>5. Citation/Order Number</td>
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<tr>
<td>6. Mine</td>
<td></td>
<td></td>
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<tr>
<td>7. Mine ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Department of Labor</td>
<td>Mine Safety and Health Administration</td>
<td></td>
</tr>
<tr>
<td>9. Violation</td>
<td>A. Health</td>
<td>B. Section of Act</td>
</tr>
<tr>
<td>10. Gravity:</td>
<td>A. Injury or illness (has) (is): No Likelihood</td>
<td>Unlikely</td>
</tr>
<tr>
<td>11. Negligence</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>12. Type of Action</td>
<td>A. Note</td>
<td>B. Low</td>
</tr>
<tr>
<td>13. Type of Issuance (check one)</td>
<td>Citation</td>
<td>Order</td>
</tr>
<tr>
<td>14. Initial Action</td>
<td></td>
<td>E. Citation/Order Number</td>
</tr>
<tr>
<td>15. Area of Equipment</td>
<td></td>
<td>F. Dated Mo Da Yr</td>
</tr>
<tr>
<td>16. Termination Date</td>
<td>A. Date</td>
<td>B. Time (24 Hr. Clock)</td>
</tr>
<tr>
<td>17. Action to Terminate</td>
<td></td>
<td></td>
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<tr>
<td>18. Terminated</td>
<td>A. Date</td>
<td>B. Time (24 Hr. Clock)</td>
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<tr>
<td>22. Signature</td>
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MSHA Form 7000-3d (01/01/92) is used to record citations issued during audits. The mine operator has received a citation and has been directed to take corrective action. If the operator fails to correct the cited violation, the mine safety officer will issue a written notice of probable violation. If the operator continues to fail to correct the violation, the mine safety officer will issue an order to cease and desist. The operator may then appeal the order to the Surface Mining Enforcement Administration or to the court of appeals of the District of Columbia.
Steel plate and also angle iron had been cut by the bulk oil dispensers for the oil hose reel. Miners were exposed to burn hazards if these combustibles were to ignite. There were no leaks or oil around the tanks. A no smoking or open flame was posted in plain view.
Attachment B - Citations Issued During Audit (cont.)

When tested the parking brake on the Caterpillar front-end loader, serial number Cat980GPAWH00537 was not capable of holding the equipment on the maximum grade it travels. Employees working in and around this equipment were exposed to the possibility of injury if the loader moved after it was parked. The area the loader works in is level and is used for loading customers' trucks.

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**Mine Citation/Order**

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<thead>
<tr>
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<td>Mine Safety and Health Administration</td>
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<td>2. Time (24 Hr. Clock)</td>
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<td>3. Citation/Order Number</td>
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<td>4. Served To</td>
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<td>5. Operator</td>
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<td>6. Mine</td>
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<tr>
<td>7. Mine ID</td>
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**Section 2 - Inspector's Evaluation**

**9. Violation**

A. Health Safety Other  
B. Section of Act  
C. Part/Section of Title 30 CFR 
- 56.14101a2

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**10. Gravity**

A. Injury or Illness (has) (is):  
- No Likelihood  
- Unlikely  
- Reasonably Likely  
- Highly Likely  
- Occurred

B. Injury or Illness could reasonably be expected to be:  
- No Lost Workdays  
- Lost Workdays Or Restricted Duty  
- Permanently Disability  
- Fatal

C. Significant and Substantial:  
- Yes  
- No  

D. Number of Persons Affected:  
- 001

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**11. Negligence (check one)**

A. None  
B. Low  
C. Moderate  
D. High  
E. Reckless Disregard

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**12. Type of Action**

A. Citation  
B. Order  
C. Safeguard  
D. Written Notice

**13. Type of Issuance (check one)**

- Citation  
- Order  
- Safeguard

---

**14. Initial Action**

A. Citation  
B. Order  
C. Safeguard  
D. Written Notice

**15. Area or Equipment**

---

**16. Termination Due**

A. Date | Mo Da Yr |
B. Time (24 Hr. Clock) | |

---

**17. Action to Terminate**

The brakes were adjusted, and now hold the loader on grade, terminating the citation.

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**18. Terminated**

A. Date | Mo Da Yr |
B. Time (24 Hr. Clock) | |

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**19. Type of Inspection**

A. (Check one)

**20. Event Number** |  
**21. Primary or Mill** |  
**22. Signature** |  
**23. AR Number** |  

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**MSHA Form 7000-3, Mar 85 (revised)**  
In accordance with the provisions of the Small Business Regulatory Enforcement Fairness Act of 1996, the Small Business Administration has established the National Small Business and Agribusiness Regulatory Ombudsmen and 10 Regional Fairness Boards to receive comments from small businesses about Federal agency enforcement actions. The Ombudsmen annually evaluate enforcement activities and rates each agency's responsiveness to small business. If you wish to comment on the enforcement actions of MSHA, you may call 1-866-MSHA-FAIR (1-866-677-2327) or write the Ombudsmen at Small Business Administration, Office of the National Ombudsmen, 409 3rd Street SW, MC 2120, Washington, DC 20410. Please note, however, that your right to file a complaint with the Ombudsmen is in addition to any other rights you may have, including the right to contest citations and proposed penalties and obtain a hearing before the Federal Mine Safety and Health Review Commission.
Three oxygen bottles were observed in the upright position, and unsecured. The tanks were located under the steps to the control tower. Employees working or traveling in this area were exposed to the possibility of injury, should the cylinders tip over striking them. The bottles were on the side of the walkway there was a metal brace between the bottles and the walkway, and the caps were on.

**Attachment B - Citations Issued During Audit (cont.)**

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**Section II - Inspector's Evaluation**

<table>
<thead>
<tr>
<th>10. Gravity:</th>
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</thead>
<tbody>
<tr>
<td>A. Injury or Illness (has)</td>
</tr>
<tr>
<td>- No Likelihood</td>
</tr>
<tr>
<td>- Unlikely</td>
</tr>
<tr>
<td>- Reasonably Likely</td>
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<td>B. Injury or Illness could reasonably be expected to:</td>
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<td>- Lost Workdays or Restricted Duty</td>
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<tr>
<td>- Permanently Disabling</td>
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<tr>
<td>- Fatal</td>
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<tr>
<td>C. Significant and Substantial:</td>
</tr>
<tr>
<td>- Yes</td>
</tr>
<tr>
<td>- No</td>
</tr>
<tr>
<td>D. Number of Persons Affected:</td>
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<td>001</td>
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</table>

**Section III - Termination Action**

17. Action to Terminate: The operator secured the bottles, terminating the citation.

**Section IV - Dated Mo Da Yr**

<table>
<thead>
<tr>
<th>18. Terminated</th>
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<tbody>
<tr>
<td>A. Date</td>
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<tr>
<td>Mo Da Yr</td>
</tr>
<tr>
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</table>
Oxygen and acetylene bottles were found with the valves left on. The bottles were located under the steps to the control tower. Miners were exposed to a burn hazard, fires, if there was an accidental release of gas from the bottles. The regulators were not leaking when they were found left on.