April 12, 2013

MEMORANDUM FOR PATRICIA W. SILVEY
Deputy Assistant Secretary for Operations
Mine Safety and Health Administration

THROUGH: KEVIN G. STRICKLIN
Administrator for
Coal Mine Safety and Health

FROM: JAY MATTOS
Director, Office of Assessments, Accountability, Special Enforcement and Investigations

SUBJECT: MSHA Office of Accountability Audit, Coal District 7 and the Harlan, Kentucky Field Office, (b) (6)

Introduction

This memorandum summarizes the Office of Accountability audit of the subject district office, field office, and mine. The audit included MSHA field activities; level of enforcement; conditions and practices at the mine; Field Activity Reviews (FARs); Accompanied Activities (AAs); field office second level reviews; MSHA supervisory and managerial oversight; and plan reviews for the mine visited. The audit included evaluations to determine if there were any deficiencies in areas commonly identified during Agency internal reviews of MSHA's actions following past mine disasters.

Positive findings, as well as issues requiring attention are included in this audit report.
Overview

The audit was conducted by Accountability Specialist Jerry Kissell and Supervisory Accountability Specialist Ted Smith from The Field and the accompanied the accountability specialists during this audit.

The audit team traveled with the inspection party to the mine on a 103(i) spot inspection (E02). The areas and activities examined included the primary escapeway, communication and tracking system, escape lifelines and the # 3 Unit (003-0 MMU). The inspection party conducted an examination of all working faces on the unit for imminent dangers. The mining cycle was observed along with the operation of the Joy continuous miner that was equipped with a proximity detection device. The section roof support system and ventilation controls were observed. The team took air readings, collected air samples and held safety discussions with the miners.

The Outby areas visited included the # 3 Unit right return, the # 3 Unit conveyor belt, and the L-6 transfer point. Waterlines, fire valves, fire hoses, and fire hose nozzles, were inspected along the belt conveyor and at the transfer point.

The team inspected the outby ventilation controls, and made visual observations of the rock dust applications. A Strata refuge chamber, signage and L-6 East Main micron 120 psi seals were examined during the mine visit.

Surface areas examined during the audit included pre and post inspection conference, check-in/check-out system, bulletin boards, the Alpha diesel 6-man ride, the Alpha diesel 4-man ride and mine record books.

Audit Results

This audit revealed positive findings in several areas, including the following:

1. The 103(i) spot inspections (E02) were conducted at irregular intervals and within required time frames.
2. District 7 enforcement personnel used appropriate enforcement tools during the mine site visits.
3. The staff and safety meetings at the Harlan field office were well documented and show a review of current information regarding MSHA policies and procedures.
4. Inspectors at the Harlan field office were courteous and professional in their interactions with miners and mine operators.
5. A District 7 manager or supervisor visited all the active underground mines at least once during FY 2012.

6. The E01 inspection files were organized and contained checklists that were useful in aiding inspectors and supervisors to ensure the inspection files and inspections were complete.

7. The mine plans were suited to the conditions observed at the mine.

This audit revealed one issue that requires corrective action:
(Supporting data can be found in the OA checklist and attachments.)

1. The inspection tracking map was not marked to identify all areas that were traveled. (Item #1, attachment B)

Attachments

A. Internal Review Summary
B. Office of Accountability Checklist
C. Statistics
D. Citations/Orders Issued During Audit
   No citations were issued during the audit
E. Examples of Citations Issued During Previous E01 Inspections
   There were no issues identified with previously issued citations
F. District Corrective Action Plan and Memo's
Attachment A – Internal Review Summary

The table below lists the most common internal review findings following mine disasters. District 7 had one of the most commonly identified issues.

<table>
<thead>
<tr>
<th>Common Internal Review Findings</th>
<th>Examples of Deficiencies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to identify deviations in approved plans.</td>
<td>Not identifying operator departures from requirements in any plan that requires approval, such as training plans, roof control plans, ventilation plans, emergency response plans, etc.</td>
</tr>
<tr>
<td>Incomplete or inadequate inspections.</td>
<td>Not following policy or procedures for conducting inspections. Failure to cite all violations. Not inspecting all areas and equipment.</td>
</tr>
<tr>
<td>Failure to conduct 103(i) spot inspections according to policy.</td>
<td>Not conducting spot inspections not conducted in a timely manner and at irregular intervals.</td>
</tr>
<tr>
<td>(b) (6) X did not provide adequate oversight.</td>
<td>No review/lax review of inspection reports. Inadequate review of PKWSAR forms. Failure to conduct required Field Activity Reviews and Accompanied Activities.</td>
</tr>
<tr>
<td>Improper evaluations of gravity, negligence and type of enforcement action.</td>
<td>Inadequate documentation to support citation and evaluation. Failure to consider and document aggravating or mitigating circumstances.</td>
</tr>
<tr>
<td>Inadequate Peer Reviews</td>
<td>Inadequate district level Peer Reviews. Failure to adopt and follow corrective action plans. Failure to follow up or monitor effectiveness of corrective action plans.</td>
</tr>
<tr>
<td>Weakness in the ACR Program</td>
<td>Not following ACR handbook. Inadequate management oversight. Failure to follow the Mine Act, MINER Act, 30 CFR and MSHA policy.</td>
</tr>
<tr>
<td>MSHA data not used or reviewed.</td>
<td>Key Indicators, Mine Profile, Inspection completion reports not being used. Failure to keep MSIS data up to date and accurate.</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lack of unwarrantable failure tracking system</td>
<td>No or inadequate unwarrantable failure sequence tracking system.</td>
</tr>
<tr>
<td>Conflict of Interest</td>
<td>Inspecting prior employers, employment of relatives</td>
</tr>
<tr>
<td>Failure to comply with Hazard Complaint Procedures.</td>
<td>Improper coding of inspections. Inadequate documentation of inspections/investigations.</td>
</tr>
<tr>
<td>Investigations of multi-phase plans</td>
<td>Failure to conduct on-site evaluations of plans.</td>
</tr>
<tr>
<td>Failure to observe retreat mining.</td>
<td>Inadequate periodic evaluations when retreat mining is conducted.</td>
</tr>
</tbody>
</table>
Attachment B – Audit Checklist (with corrective actions)

1. Determine if complete and thorough E01 inspections are being conducted.

Adequate [ ] Corrective Action Needed [X] Comments Below [X]

The areas traveled by the (b) (6) were not adequately documented on the inspection tracking map for event number 6246306. The L-7 section Right Return from Block 55 to block 57, where 3 overcasts are located was not marked to show it had been traveled. In addition, the Right Return from the L-7 section to the Slope return of the Kellioki seam was not marked to indicate the air course had been traveled.

Reference: CMS&H Procedures Handbook, PH-08-V-1, pg.36, section F-1, documentation required.

The CMS&H Procedures Handbook states in part “Additionally, the inspector shall clearly mark the extent of daily travels that contribute to an E01 inspection event in each air course on a mine map, line diagram or combination of a mine map and line diagram until each intake or return aircourse is fully inspected.”

Corrective Action Submitted by the District

The District Manager directed that all district supervisors be given clear instructions to assure that all areas inspected are documented on the inspection tracking map and that areas with overcasts are traveled through/over.

The Assistant District Managers will formally go over this issue and corrections with each supervisor. In turn, each supervisor will go over this issue and the corrections with their respective underground staff employees at the next branch/field office staff meeting.

2. Determine if citations and orders issued during previous inspections were properly evaluated for gravity, negligence, level of enforcement, number of persons affected, and supported by documentation.

Adequate [X] Corrective Action Needed [ ] Comments Below [ ]
3. Evaluate inspector/specialist examination of required record books and postings for compliance with applicable standards.  
Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

4. Evaluate inspector/specialist examination of the operator’s maps (on-site) for accuracy, escapeway locations, etc.  
Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

5. Upon arrival on the working section, accompany and evaluate inspector/specialist examination of all working faces for imminent dangers.  
Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

6. Evaluate the inspector/specialist observation of the work cycle and conditions on the working section during the audit.  
Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

7. Evaluate the inspector/specialist air quantity, quality, and gas checks during the audit.  
Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

8. Evaluate inspector/specialist examination of equipment electrical cables during the audit.  
Adequate [ ]  Corrective Action Needed [ ]  Comments Below [X]

No electrical cables were pulled during the audit mine visit.
9. Evaluate inspector/specialist examination for permissibility during the audit.
   Adequate [ ] Corrective Action Needed [ ] Comments Below [X]
   No permissibility inspections were completed during the audit mine visit.

10. Determine if areas deemed too wet for rock dust surveys during previous inspections were re-visited and sampled.
    Adequate [X] Corrective Action Needed [ ] Comments Below [ ]

11. Determine if previous E01 inspections include examinations of the condition and maintenance of conveyor belts, belt entries, belt drives, fire detection and suppression systems, and separation of belt entries from other air courses.
    Adequate [X] Corrective Action Needed [ ] Comments Below [ ]

12. During the audit, evaluate the inspection of at least one set of seals, including methods for obtaining samples from sealed area.
    Adequate [X] Corrective Action Needed [ ] Comments Below [ ]
    The audit team traveled with the inspector to the L-6 East Micron 120 Seals.

13. Determine if adequate close-out conferences are being conducted at the end of each inspection.
    Adequate [X] Corrective Action Needed [ ] Comments Below [ ]
    Daily close out and a summary closeout review are being consistently conducted.

14. Determine if Possible Knowing/Willful (PKW) Forms are documented and processed according to agency policy and procedures.
    Adequate [ ] Corrective Action Needed [ ] Comments Below [X]
    No PKW's were reviewed as part of this audit.
Evaluate 103(i) spot inspection (E02) reports for the office/district being audited for compliance with agency policies and procedures, including compliance with time frames and separating E02 inspections from other events.

<table>
<thead>
<tr>
<th>Adequate</th>
<th>Corrective Action Needed</th>
<th>Comments Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
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</tbody>
</table>

16. Determine if Hazard Complaint inspections/investigations are being conducted according to policy and procedures.

<table>
<thead>
<tr>
<th>Adequate</th>
<th>Corrective Action Needed</th>
<th>Comments Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
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</tbody>
</table>

17. Determine if supervisors are monitoring inspector time and activity to ensure proper use of time, including off-shift and weekend work, by all inspectors.

<table>
<thead>
<tr>
<th>Adequate</th>
<th>Corrective Action Needed</th>
<th>Comments Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
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</tr>
</tbody>
</table>

18. Are required Field Activity Reviews (FARs) and supervisory follow-ups being conducted and documented according to agency policy and procedures?

<table>
<thead>
<tr>
<th>Adequate</th>
<th>Corrective Action Needed</th>
<th>Comments Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Are Accompanied Activities (AAs) and supervisory follow-ups being conducted and documented according to agency policy and procedures?

<table>
<thead>
<tr>
<th>Adequate</th>
<th>Corrective Action Needed</th>
<th>Comments Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Determine if a 104(d) tracking system is in place and being kept current at the office being audited.

<table>
<thead>
<tr>
<th>Adequate</th>
<th>Corrective Action Needed</th>
<th>Comments Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. Determine if the Uniform Mine File books are being maintained and reviewed according to current agency policy and procedures.
   Adequate X  Corrective Action Needed □  Comments Below □

22. Are supervisors thoroughly reviewing Uniform Mine Files at least annually?
   Adequate X  Corrective Action Needed □  Comments Below □

23. Determine if supervisors are visiting each active underground mine at least annually.
   Adequate X  Corrective Action Needed □  Comments Below □

24. Are all sections where retreat mining is occurring (not to include longwall mining) being inspected at least monthly?
   Adequate X  Corrective Action Needed □  Comments Below □

25. Review documentation of staff meetings/safety meetings to determine their effectiveness and relevance to current issues and the Agency’s mission.
   Adequate X  Corrective Action Needed □  Comments Below □

26. After an in-mine visit, evaluate approved plans (ventilation, roof control, training, etc.) for compatibility with mining conditions and equipment.
   Adequate X  Corrective Action Needed □  Comments Below □
27. Determine if approved plans are being revised or updated to reflect changes in conditions and/or equipment.

Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

28. Determine if plan reviews are in compliance with current agency policy and procedures (performed within required timeframes, tracked from the date of submission, properly documented, and contain input from all affected departments and field offices).

Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

29. Determine if Assistant District Manager is conducting the required second level reviews and holding supervisors accountable for oversight of Field Activity Reviews and Accompanied Activities.

(b) (6)

30. Determine if district management personnel are reviewing work products and reports for accuracy and completeness.

Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]

As part of second level reviews.

31. Determine if District Managers, Assistant District Managers, and supervisors are conducting required mine visits and properly completing the required spreadsheet.

Adequate [X]  Corrective Action Needed [ ]  Comments Below [ ]
32. Determine if District Manager is using discretion in granting conferences and monitoring the ACR program to ensure that all decisions (including upholding, modifying or vacating citations) are properly documented and justified by the CLR.

Adequate [ ] Corrective Action Needed [ ] Comments Below [X]

The ACR program was not audited.

33. Determine if District Manager is holding the Supervisory Special Investigator accountable for properly evaluating and initiating or denying potential cases.

Adequate [ ] Corrective Action Needed [ ] Comments Below [X]

The Possible Wilful and Knowing forms were not reviewed during this audit.

34. Determine if managers and supervisors are using required standardized reports to review critical data relevant to inspections and investigations.

Adequate [X] Corrective Action Needed [ ] Comments Below [ ]

Use monthly data reports.

35. Determine if Districts are conducting in-depth Peer Reviews in compliance with agency policy and procedures including follow-up to determine the effectiveness of corrective actions.

Adequate [X] Corrective Action Needed [ ] Comments Below [ ]

36. Is information (mine status, methane liberation, number of employees, etc) being entered into the MHSA Standardized Information System (MSIS) accurately and in a timely manner?

Adequate [X] Corrective Action Needed [ ] Comments Below [ ]
37. Evaluate the overall condition of the mine relative to the level of enforcement documented in previously completed inspections.

Adequate X  Corrective Action Needed  Comments Below
Attachment C- Statistics

S&S Rate Comparison

During FY 2011 and FY 2012, the average S&S rate for the Harlan field office was below both the district and the national average.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Harlan, KY Field Office</th>
<th>Coal District 7</th>
<th>National Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>27%</td>
<td>38%</td>
<td>34%</td>
</tr>
<tr>
<td>2012</td>
<td>27%</td>
<td>33%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Time and Activity Comparison

A comparison of FY 2011 and FY 2012 time distribution for regular (E01) inspections at surface facilities inspected by the Harlan field office shows time in the other category is lower than the national average and on-site time is higher than the national average.

<table>
<thead>
<tr>
<th>FY</th>
<th>Area/Office</th>
<th>Travel</th>
<th>**Other</th>
<th>*Total On-Site</th>
<th>Citations Issued On-Site</th>
<th>Citations Issued Off-Site</th>
<th>Total Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Harlan, KY</td>
<td>15%</td>
<td>13%</td>
<td>72%</td>
<td>6%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Nat'l Avg</td>
<td>17%</td>
<td>17%</td>
<td>66%</td>
<td>6%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>2012</td>
<td>Harlan, KY</td>
<td>16%</td>
<td>15%</td>
<td>69%</td>
<td>6%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Nat'l Avg</td>
<td>17%</td>
<td>17%</td>
<td>66%</td>
<td>5%</td>
<td>1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Total On-Site time includes citations written on-site
**Includes calibration of gas detectors, respirable dust pumps, preparation and mailing of gas and rock dust samples and citation written off site
A comparison of FY 2011 and FY 2012 time distribution for regular (E01) inspections at surface mines inspected by the Harlan field office shows time in the other category to be about the same as the national average and on-site time to also is about the same as the national average.

<table>
<thead>
<tr>
<th>FY</th>
<th>Area/Office</th>
<th>Travel</th>
<th>**Other</th>
<th>*Total On-Site</th>
<th>Citations Issued On-Site</th>
<th>Citations Issued Off-Site</th>
<th>Total Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Harlan, KY</td>
<td>18%</td>
<td>14%</td>
<td>68%</td>
<td>5%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Nat'l Avg</td>
<td>18%</td>
<td>14%</td>
<td>68%</td>
<td>5%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>2012</td>
<td>Harlan, KY</td>
<td>17%</td>
<td>15%</td>
<td>68%</td>
<td>5%</td>
<td>0%</td>
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<tr>
<td></td>
<td>Nat'l Avg</td>
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<td>15%</td>
<td>67%</td>
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</tbody>
</table>

* Total On-Site time includes citations written on-site  
** Includes calibration of gas detectors, respirable dust pumps, preparation and mailing of gas and rock dust samples and citations written off site

A comparison of FY 2011 and FY 2012 time distribution for regular (E01) inspections at underground mines inspected by the Harlan field office shows time in the other category is about the same or slightly higher than the national average and on-site time is lower than the national average.

<table>
<thead>
<tr>
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<th>Travel</th>
<th>**Other</th>
<th>*Total On-Site</th>
<th>Citations Issued On-Site</th>
<th>Citations Issued Off-Site</th>
<th>Total Percent</th>
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<tbody>
<tr>
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<td>5%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Nat'l Avg</td>
<td>16%</td>
<td>16%</td>
<td>68%</td>
<td>6%</td>
<td>1%</td>
<td>100%</td>
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<tr>
<td></td>
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<td>68%</td>
<td>6%</td>
<td>1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Total On-Site time includes citations written on-site  
** Includes calibration of gas detectors, respirable dust pumps, preparation and mailing of gas and rock dust samples and citations written off site.
Attachment D – Citations Issued During Audit

No citations were issued during mine site visit portion of this audit.
Attachment E – Examples of Citations Issued During Previous Inspections

There were no issues identified with previously issued citations and orders.
Attachment F – District Corrective Action Plan

April 5, 2013

MEMORANDUM FOR:  TED SMITH
   Supervisor Office of Accountability
   Mine Safety and Health Administration

FROM:  IRVIN T. HOOKER
   District Manager
   District 7 Mine Safety and Health Administration

SUBJECT:  Proposed Corrective Action

This is in response to the audit conducted by your office from (b) (6)
(b) (6) at the Harlan Field Office and the (b) (6)
(b) (6) The results of the audit identified one deficiency which is
required to be addressed by this office.

DEFICIENCY:
The inspection tracking map was not marked to identify all areas that were traveled
during the 6246306 Event.

ROOT CAUSE:
The root cause was found to be Management System –
Standards/Policies/Administrative Controls Inadequate. A root cause analysis was
conducted by reviewing the inspection event information identified in the issue and
interviewing both the (b) (6) regarding the same. In agreement with
the audit issue, it was determined that (b) (6) oversight did not assure that two
separate locations (returns) where overcasts were located were noted as traveled on
the inspection tracking map. The (b) (6) traveled to each side of the overcasts rather
than travel through/over each. The (b) (6) failed to identify this area on his review
of the inspection notes and supporting data.

PROPOSED CORRECTIVE ACTIONS:
The audit issues were discussed in a meeting with the District Manager and the
Assistant District Managers. As noted, it was determined that (b) (6) did
not assure that the inspection tracking map was marked to indicate two areas at
overcasts in a return entry/crosscut were traveled. Both areas had overcasts and the
had traveled to both sides of the overcasts, but did not physically travel on top of the overcasts.

To correct the aforementioned issues, the District Manager directed that all district supervisors be given clear instructions to assure that all inspected areas are documented on the inspection tracking map and that areas with overcasts are traveled through/over.

The Assistant District Managers will formally go over this issue and corrections with each supervisor. In turn, each supervisor will go over this issue and the corrections with their respective underground staff employees at the next branch/field office staff meeting.

OFFICE RESPONSIBLE FOR IMPLEMENTING:
The Assistant District Managers are responsible for training all district supervisors at the next staff supervisory meeting. In turn, the district supervisors are to train all underground inspection personnel in staff meetings.

TIMEFRAME FOR COMPLETION:
Implementation dates for the corrective measures and follow-up are as follows:

- ADM training supervisors: no later than, April 30, 2013
- Field Office Staff Meeting to train the inspectorate: no later than, May 24, 2013

METHOD FOR DETERMINING SUCCESS:
There are two parts of the follow-up to measure the results of the training and resolution of the audit issue. First, each field office supervisor will document in their field notes (when conducting their required Accompanied Activities (AA)) that each inspector is traveling through/over overcasts and subsequently correctly noting the extent of travel on the inspection tracking map as a part of their inspection process. This will be accomplished by a detailed discussion with each individual inspector while traveling underground during the AA. Details of the discussion and travel will be documented in the supervisor’s AA notes.

Another part of the follow-up, to assure the issue is indeed resolved, is that the Inspection Division Assistant District Manager will select and check random inspection reports (two (2) per field office) to assure that all areas are being traveled in their entirety—especially areas where overcasts must be traveled through/over. Simultaneously with the review, the inspection tracking map will be checked to verify the correct notation concerning the inspector’s travels. The results of the chosen random
inspection report check will be documented by the Assistant District Manager and such documentation will be reviewed by the District Manager.