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REPORT TO THE MINE SAFETY AND HEALTH ADMINISTRATION



MSHA CAN IMPROVE HOW VIOLATIONS ARE ISSUED, TERMINATED, MODIFIED, AND VACATED

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BRIEFLY...

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March 31, 2021

WHY OIG CONDUCTED THE AUDIT

Mine Safety and Health Administration's (MSHA) inspects mines to ensure they are safe for miners. The Federal Mine Safety and Health Act (Mine Act) gives MSHA the authority to issue notices, safeguards, citations, and orders ("violations" is the blanket term used by MSHA) to mine operators who do not comply with the health and safety standards or the Mine Act.

A violations process should include clear guidance, appropriate internal controls, and a strong monitoring system to ensure the process meets its goals. Incorrectly written violations or untimely verification by MSHA inspectors that operators abated hazards by the due dates can result in miners' unnecessarily continued exposure to hazards. Moreover, incorrectly written violations can result in court challenges.

WHAT OIG DID

Given these risks, we performed an audit to determine the following:

Did MSHA properly manage the process it used to issue, terminate, modify, and vacate violations?

We analyzed more than 736,000 violations, reviewed inspection reports, and reviewed supervisory reports from six districts that we judgmentally selected.

READ THE FULL REPORT

<http://www.oig.dol.gov/public/reports/oa/2021/05-21-002-06-001.pdf>

WHAT OIG FOUND

MSHA did not properly manage the process it used to issue, terminate, modify, and vacate violations. Various areas of MSHA's violations process had significant weaknesses, jeopardizing MSHA's mission to maintain miner safety.

MSHA did not timely verify operators had abated hazards.

For more than 215,000 violations out of the 706,000 we reviewed, MSHA had not verified that operators corrected hazards until after their required due date. Not verifying that operators have abated hazards by the due date unnecessarily jeopardized miner safety.

Violation abatement due dates were longer than necessary and varied widely, and extensions were unjustified. These lengthy hazard abatement periods can expose miners to hazards longer than necessary and affect penalty assessments for operators.

Thousands of violations written by MSHA inspectors did not comply with the Mine Act and MSHA Handbook requirements. Despite MSHA's previous efforts to implement internal controls, controls meant to maintain compliance were missing or not working as intended. This lack of controls resulted in thousands of issued and modified violations that did not comply with Handbook requirements and the Mine Act. Errors make violations subject to court challenges and inaccurate penalty assessments and can jeopardize miner safety.

MSHA guidance was insufficient in certain instances. Specifically, MSHA had not issued sufficient guidance on timely recording of violations in MSHA Centralized Application System (MCAS) or guidance involving issuing multiple safeguards at a single mine. The insufficient guidance affected MSHA's ability to terminate violations and can lead to incorrect violation types, duplicate violations, and avoidance of penalties.

WHAT OIG RECOMMENDED

We made 10 recommendations focused on improving the violations process in this report. MSHA generally agreed with all our recommendations.

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INSPECTOR GENERAL'S REPORT

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One of MSHA's essential roles is inspecting mines to ensure they are safe for miners. During these inspections, the Mine Act gives MSHA the authority to issue notices, safeguards, citations, and orders ("violations," is the blanket term used by MSHA) to mine operators who do not comply with the health and safety standards or the Mine Act (see Exhibit 3). This report presents the results of our audit of MSHA's internal controls over its processes to issue, terminate, modify, and vacate violations.

The violations process should include clear guidance, appropriate internal controls, and a strong monitoring system to ensure the violations process meets its goal of safeguarding miners. For example, MSHA inspectors issuing violations incorrectly or performing untimely verification of abated hazards by required due dates can result in miners' unnecessary continued exposure to work hazards. Moreover, MSHA inspectors issuing incorrectly written violations can result in court challenges.

Given these risks, we performed an audit to determine the following:

Did MSHA properly manage the process it used to issue, terminate, modify, and vacate violations?

We determined MSHA did not properly manage the violation process it used to issue, terminate, modify, and vacate violations because of significant weaknesses in MSHA's violations process. The process weaknesses included untimely verifications that operators corrected hazards by due dates, due dates set longer than necessary and unjustified extensions of those due dates, violations with errors, unclear justifications for vacating violations, and

supervisory reports that were incomplete or inaccurate. These issues were mainly due to MSHA's insufficient oversight and missing or improperly designed system controls. As a result, these significant weaknesses hindered MSHA's essential role in maintaining miner safety.

To answer our audit question, we interviewed MSHA personnel, performed data analytics on MSHA Centralized Application System (MCAS) data for more than 736,000 violations issued between January 1, 2013 and September 30, 2019, reviewed inspection reports or system reports for select violations, and reviewed supervisory reports from six districts we judgmentally selected.

RESULTS

MSHA helps save miners lives and makes their working environments safer by issuing violations to mine operators for hazards requiring abatement. However, MSHA did not properly manage the process it used to issue, terminate, modify, and vacate violations. Various areas of MSHA's violations process had significant weaknesses:

- MSHA did not timely verify whether operators had abated hazards;
- Violation abatement due dates were longer than necessary and varied widely and extensions were unjustified;
- Thousands of violations did not comply with MSHA Handbook requirements and with the Mine Act itself;
- MSHA's guidance was insufficient in certain instances, specifically:
 - for recording of violations in MCAS and
 - for issuing multiple safeguards at a single mine; and
- Supervisory reports were incomplete and inaccurate.

These weaknesses were long-standing. MSHA had identified similar control weaknesses during its own reviews conducted from 2003 through 2012 of previous accident investigations at mines such as No. 5 Mine, Aracoma Alma #1 Mine, Darby Mine No. 1, Sago Mine, and Upper Big Branch Mine South. Although the inability of operators to comply with safety standards caused these mining accidents and miner deaths, deficiencies existed in MSHA's violations process similar to the challenges discussed in this report. Many of these accident investigations made recommendations to address the same or similar issues as those we cite in this report. Addressing and improving these deficiencies would help MSHA in its mission to safeguard miners.

These weaknesses in the violations process affected MSHA's mission to preserve miners' safety. The effects include (1) miners were potentially exposed

to hazards longer than necessary, (2) violations had to be modified or vacated, (3) violations were challenged in court because of errors, and (4) some penalty assessments were likely calculated incorrectly.

MSHA DID NOT TIMELY VERIFY OPERATORS HAD ABATED HAZARDS

MSHA's process for verifying mine operators abated mining hazards on a timely basis had weaknesses. These weaknesses included not terminating violations by their due date and not issuing 104(b) orders in a consistent or timely manner. MSHA jeopardized miner safety by not verifying that mine operators abated hazards by required due dates.

NEARLY ONE-THIRD OF VIOLATIONS NOT TERMINATED BY REQUIRED DUE DATE

It is critical that mine operators abate hazards identified in violations by the required due date because of the danger posed to the health and safety of miners from the hazards. Moreover, it is prudent for MSHA to have inspectors confirm that operators have corrected a hazard by the due date. Once an inspector confirms that a hazard has been abated, the violation is described as "terminated." When a violation has gone past the due date without being terminated, the violation is termed "overdue."

Citations and safeguards are the two types of violations for which inspectors include an abatement due date to the operator. Therefore, we compared due dates to MSHA's termination dates for the 706,007 citations and safeguards issued from January 1, 2013, to September 30, 2019, and we found inspectors terminated almost a third of the 706,007 violations we reviewed (218,354) after the due date, the longest reaching 1,014 days after the due date (see Table 1).

TABLE 1: OVERDUE TERMINATIONS BY AGE

Days Overdue							Total
1-13	14-29	30-89	90-179	180-364	365-729	730+	
199,802	17,685	761	70	22	10	4	218,354

To show how much risk these overdue terminations posed to miners, we analyzed the population for severity of harm. Hazards present varying degrees of

risk, such that some hazards are more likely to cause illness, injury, or death than others. For example, an improperly supported mine roof can cause serious injuries and even death to miners in the event of a roof collapse. On the other hand, a late-filed employment production report is unlikely to have serious consequences to the safety or health of miners. As a result, violations having a “reasonable likelihood of resulting in an illness or injury of a reasonably serious nature” are labeled as “significant and substantial” (S&S) on the violation form. We found that mine inspectors deemed almost a quarter of the violations with overdue terminations as “S&S” citations (see Table 2). Overdue termination of these violations poses a high risk of harm to miners.

TABLE 2: S&S OVERDUE TERMINATIONS BY AGE

	Days Overdue							Total
	1-13	14-29	30-89	90-179	180-364	365-729	730+	
S&S	48,399	4,362	178	12	6	5	3	52,965
Non-S&S	150,591	13,281	578	55	14	5	0	164,524
Safeguards	812	42	5	3	2	0	1	865

Challenges with inspectors’ overdue termination of violations have been a long-standing issue. MSHA’s own accident investigations conducted between 2003 and 2012 found that inspectors did not return to mines by the termination due dates to determine if hazards had, in fact, been abated in a timely manner. See Exhibit 2 for extracts from MSHA’s own accident investigations related to not terminating violations by the due date.

These overdue terminations generally occurred because inspectors did not return to the mines by the due date to confirm the abatement of hazards, as they are responsible for inspecting multiple mines in a large geographic area. In 2018, MSHA was working on improving inspectors’ access to mines through its “blurring” initiative project to cut down on time spent traveling. The methods we used to analyze MSHA’s performance with terminating violations did not show improvements yet from this initiative with the problem of overdue terminations. However, we acknowledge any reductions in traveling time from the “blurring” initiative can help MSHA decrease its percentage of untimely terminations.

Due to overdue terminations, miners could be exposed to hazards longer than necessary and, therefore, have their safety jeopardized.

MSHA DID NOT ISSUE 104(B) ORDERS IN A CONSISTENT OR TIMELY MANNER

In addition to requiring violations be abated by a certain required date, MSHA inspectors have another tool to help ensure mine operators abate hazards. If “upon any follow-up inspection,” MSHA finds a violation has reached its due date, and the mine operator has not yet abated the hazard, the Mine Act requires inspectors either to extend the due date or issue a 104(b) order for failure to abate a hazard listed in a previous violation. We found, however, that MSHA did not consistently issue 104(b) orders. For example, MSHA issued over 3,500 orders during a time when more than 50,000 violations were overdue by seven or more days. As noted, with two options when violations reach their due date, we would have expected to see MSHA issue a higher number of 104(b) orders.

Moreover, when MSHA did issue 104(b) orders, those orders were untimely. Of the more than 3,500 orders issued, we found MSHA issued 2,710 orders after

TABLE 3: DAYS BETWEEN VIOLATION DUE DATE AND 104(B) ORDER

1-6	7-13	14-29	30-89	90-179	180+
1,313	501	808	83	4	1

the original violation’s due date. In fact, MSHA issued 40 percent of those seven or more days late, and MSHA issued one order almost a year later (see Table 3). It is prudent for MSHA to issue 104(b) orders on or very near the due date.

MSHA’s inconsistent use and untimely issuance of 104(b) orders generally occurred because inspectors did not return to the mines by the due date to confirm whether hazards were abated. Even though inspectors often have large geographic territories to cover, making it difficult to return to every mine to verify hazard abatement, MSHA inspectors can issue some 104(b) orders without visiting a mine. For example, MSHA’s *Citation and Order Writing Handbook for Coal Mines and Metal and Nonmetal Mines* (commonly known as the “Citation and Order Writing Handbook”) says inspectors can terminate violations relating to certain records without an on-site inspection. This means inspectors can make the decision to issue a 104(b) order from the MSHA office for violations relating to certain records, such as operators not submitting MSHA form 7000-1 “Mine Accident, Injury and Illness Report” or MSHA 7000-2 “Quarterly Mine Employment and Coal Production Report.” MSHA, during accident investigations conducted from 2003 through 2012, also found problems in the use of 104(b) orders. For example, MSHA’s team found inspectors did not return to a mine by the due date to be able to determine whether issuing a 104(b) order was justified. See Exhibit 2 for extracts related to inconsistent use of 104(b) orders.

Ultimately, inspectors issuing late 104(b) orders or, in some cases, not issuing them at all, allow hazards to remain unabated longer than necessary. The longer hazards remain unabated, the longer they expose miners to health and safety risks. In contrast, these 104(b) orders provide a powerful incentive for mine operators to abate hazards. For example, one of MSHA's accident investigations found a hazard that had been overdue for five days was corrected within three hours after the inspector issued a 104(b) order. At the same time, not making a timely decision to extend the due date or issue a 104(b) order affects the fines that mines have to pay for unabated hazards. Inaccurate reflection of due dates can affect the calculation of fines because mines receive a discount on penalties for on-time hazard abatement, and, conversely, receive daily fines for unabated hazards.

**VIOLATION ABATEMENT DUE DATES WERE
LONGER THAN NECESSARY AND WIDELY
VARIED, AND EXTENSIONS WERE
UNJUSTIFIED**

Inspectors allowed operators due dates longer than necessary when issuing violations, and the time inspectors allowed mines to abate similar hazards varied widely. Moreover, inspectors did not properly justify extensions of time they provided to mines. These issues can expose miners to hazards longer than necessary and affect two aspects of penalty assessments for operators.

MSHA's Citation and Order Writing Handbook instructs inspectors to give primary consideration to the health and safety of miners in establishing due dates. The date must be specific and provide a reasonable time for mine operators to abate the hazard. It also states not to establish due dates for the convenience of the mine operator or the inspector, or because the operator has filed a court challenge or a petition for modification.

We analyzed due dates for citations and safeguards¹ issued between January 1, 2013 and September 30, 2019. Our initial assumption was that inspectors would set relatively consistent and reasonable due dates for violations related to the same hazard, and any due dates outside the normal range would have a specific and justified reason for an extension listed on the violation form. Our analysis, however, showed that inspectors were not following MSHA's Handbook guidance by giving due dates longer than necessary, having wide variances in due dates

¹ Citations and safeguards are the only types of violations for which due dates are assigned. Other violations, such as orders, are not subject to a due date and take effect immediately.

for similar hazards, and not providing sufficient justifications for extensions of due dates.

DUE DATES LONGER THAN NECESSARY

Section 104(a) of the Mine Act requires a “reasonable” time be given for abatement of the violation. This means not too little time, but also not too much time. MSHA guidance does not define “reasonable,” but requires that inspectors should give primary consideration to the health and safety of miners when setting due dates for violations.

Early terminations indicate due dates were longer than necessary and that the inspectors could have set earlier due dates. To verify that inspectors were not allowing too much time, we did a trend analysis on the more than 39,000 violations terminated earlier than their due date. Our analysis found more than 5,600 violations (14 percent) terminated at least 7 days early, of which more than 1,100 violations (20 percent) were deemed S&S.

We found the following examples of due dates set longer than necessary:

- For seat belts not locking in place on a truck, the inspector allowed a due date of 1,097 days. The violation was terminated 2 days later, 1,095 days before the due date;
- For operating a grinder with the guard removed, the inspector allowed a due date of 1,095 days. The violation was terminated 3 days later, 1,092 days before the due date;
- For brake lights not working on a loader, the inspector allowed a due date of 731 days. The violation was terminated the same day the violation was issued, 731 days before the due date;
- For a low air reading not complying with the operator’s methane dust control plan, the inspector allowed a due date of 365 days. The violation was terminated the same day it was issued, 365 days before the due date. The inspector appeared to have typed the wrong year into the system; and
- For a miner not wearing fall protection while working eight feet high on a loader, the inspector allowed a due date of 365 days. The violation was terminated the same day it was issued, 365 days before the due date. In this case also, the inspector appeared to have typed the wrong year into the system.

To their credit, mine operators in these instances abated the hazards before they were required to do so. However, not all mine operators may be as diligent.

Challenges with inspectors providing due dates longer than necessary has been a long-standing issue. MSHA's own accident investigations conducted between 2003 and 2012 also found inspectors allowed due dates longer than necessary for abatement of hazards. See Exhibit 2 for extracts from accident investigations.

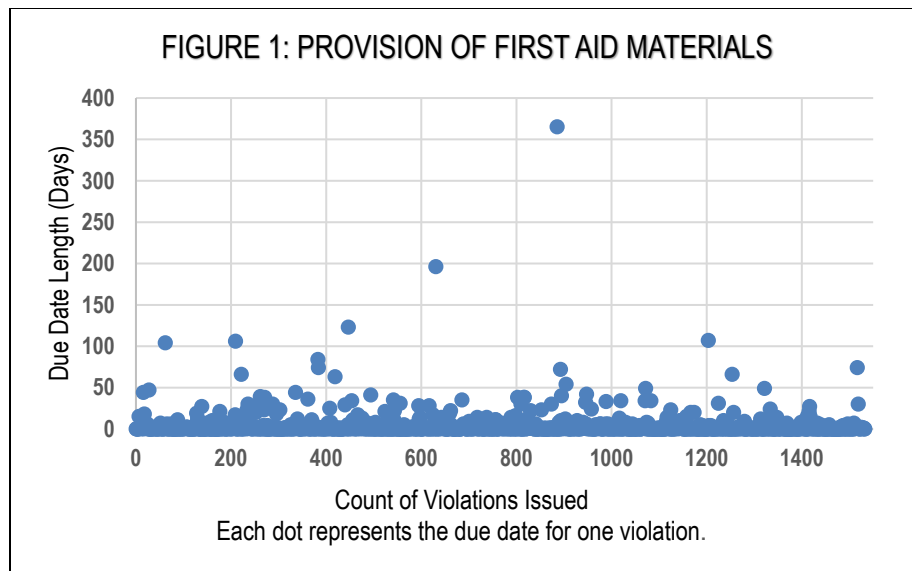
These due dates being longer than necessary occurred because of two factors: insufficient supervisory reviews and lack of system controls to ensure due dates fell within a “reasonable” range as opposed to being longer than necessary.

This practice, if not corrected, could lead to miners being exposed to hazards longer than necessary and could affect two aspects of penalty assessments, as fines to mine operators are based on meeting due dates for abating hazards.

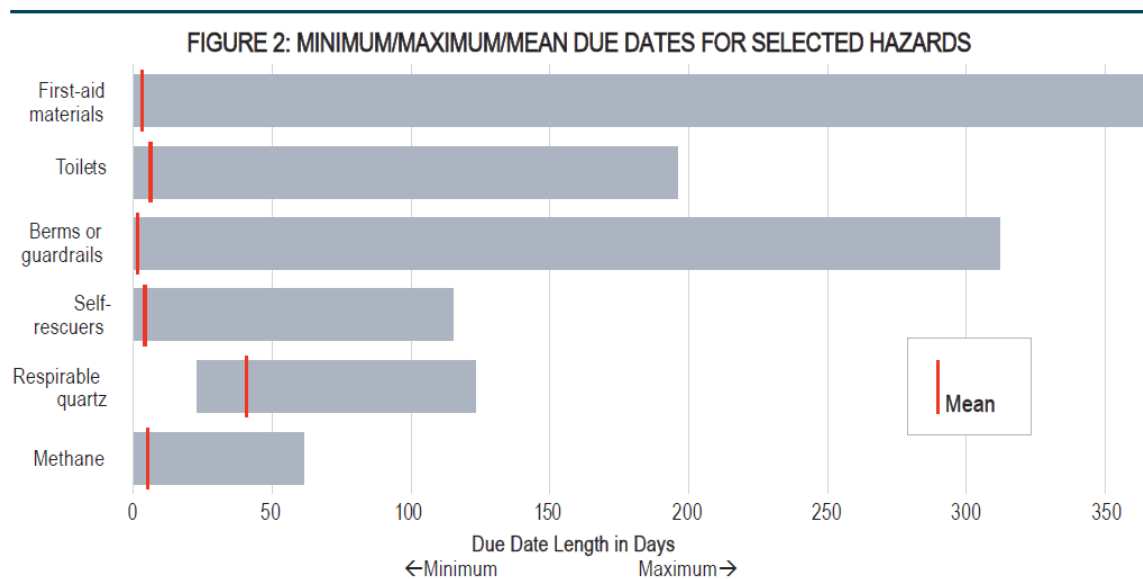
MSHA believes the rollout of tablets for inspectors in 2018 helped MSHA improve in this area. Supporting this assertion, our analysis indicated the longest due date in 2018 and the longest in the first nine months of 2019 were both shorter than had been in prior years. Such a trend is a step in right direction in gaining control over the problem of due dates longer than necessary.

WIDE VARIANCES IN DUE DATES

Section 104(a) of the Mine Act requires a “reasonable” time be given for abatement of the violation. MSHA guidance does not define “reasonable,” but requires that inspectors should give primary consideration to the health and safety of miners when setting due dates for violations. The challenge for inspectors is there are many different types of hazards for which they are trying to determine “reasonable” lengths of time. We found inconsistencies in the length of time allowed as due dates for violations of the same hazard. Widely varying due dates were allowed for the same hazard at different times. We analyzed a judgmental sample of violations to determine the consistency of due dates; overall, we found inconsistencies. For example, our analysis of the 1,532 violations related to the provision of first aid materials (CFR 56.15001) found inspectors provided due dates ranging from a low of zero days to a high of 365 days. To measure the variability within the data, we computed its standard deviation, how far from the mean (average) most of the data resides in a tested population. The higher the standard deviation, the more variability in the underlying data. Violations for this particular hazard had a standard deviation of 14 indicating highly variable data (see Figure 1 for a scatter chart of due dates from violations for this type of hazard).



Violations related to berms and guardrails (CFR 56.9300(a)) exhibited similar variability: the shortest due date was zero days and the longest 312 days, with a standard deviation of 8. See Figure 2 for a selection of hazards with wide ranges between the minimum and maximum due dates given to operators.



We understand inspectors need to be able to consider the circumstances at a mine each time they set a due date. For example, one mine may have on-site capabilities to correct its hazard immediately whereas another mine may have to bring someone from outside the mine or purchase materials to correct its hazard.

Therefore, variances can occur because of justified reasons. However, many of MSHA's wide variances occurred without justifiable reasons.

Our findings indicate wide variability in the due dates given because inspectors did not follow MSHA guidance, and MSHA has not developed sufficient tools to combat inconsistency in due dates, such as a system control to evaluate reasonableness of due dates for each type of hazard.

Inconsistency in due dates as a practice, if not corrected, could lead to miners being exposed to hazards longer than necessary and could affect two aspects of penalty assessments, as fines to mine operators are based on meeting due dates for abating hazards.

Using historical information, MSHA could develop a system control of expected ranges of due dates for each type of hazard to inform inspectors. This would be very useful for newer inspectors or for hazards not often seen by experienced inspectors and would also help ensure consistency within MSHA. In addition, it would help eliminate mistakes found in our earlier examples where inspectors incorrectly entered the due date, for example, the wrong year. Overall, this would improve overall miner safety by ensuring inspectors are providing more consistent due date lengths that consider the health and safety of the miners first.

UNJUSTIFIED EXTENSIONS OF DUE DATES

MSHA's Citation and Order Writing Handbook states not to establish due dates for the convenience of the mine operator or the inspector, or because the operator has filed a court challenge or a petition for modification. However, we found inspectors did not follow this guidance.

We identified over 190 cases in which inspectors were extending due dates either for MSHA's convenience--where, for example, inspectors were unable to return to a mine on a timely basis--or for reasons that did not appear reasonable (e.g., extending even though operator said it had already abated hazard), at least as stated on the form. Some examples we found include the following:

- *"This extension is to allow an inspector to verify the abatement of the hazard."*
- *"This citation is extended to allow time for an MSHA representative to return to the isolated mine to verify the equipment removal from the mine site for termination."*
- *"Operator has stated that the condition has been corrected, this citation is hereby extended."*
- *"Additional time is required to terminate this citation. Therefore, this citation is extended."*

These reasons were used to extend due dates up to 182 days beyond the original required due date. Extending violations without proper justification is a long-standing issue. MSHA's own accident investigations conducted between 2003 and 2012 also found inspectors provided unjustified extensions to operators. See Exhibit 2 for extracts from these accident investigations.

A proper justification for an extension would be a situation where the operator ordered materials to fix the hazard, but, on the due date, the materials had not yet arrived thus delaying hazard abatement. In this case, an extension would be justified to allow more time for the operator to receive the material and fix the hazard. In contrast to proper justifications, the unjustified extensions we found included inspectors extending due dates for MSHA's benefit (e.g., helping MSHA terminate violations by the due date) rather than an operator's need.

The unjustified extension issue occurred because inspectors were not following MSHA guidance since they can be held accountable for late terminations of violations and the accountable timeframe can vary by district. Extending a violation can help an inspector meet performance expectations. In addition, as shown by each violation's history, supervisors did not correct this issue during their reviews of the violations.

Unjustified extensions put miners at risk of being exposed to hazards longer than necessary because operators were allowed a longer time than necessary to fix the hazard. It can also affect two aspects of penalty assessments as fines to mine operators are based on meeting due dates for abating hazards.

THOUSANDS OF VIOLATIONS DID NOT COMPLY WITH MINE ACT AND MSHA HANDBOOK REQUIREMENTS

We found thousands of violations that did not comply with MSHA's Handbook requirements and even, in some cases, with the Mine Act itself. This included issued and modified violations containing errors and inspectors vacating violations without clear, specific reasons. While MSHA provides training to its inspectors on the Handbook requirements and implemented numerous system controls and supervisory oversight controls to enforce those requirements, we nevertheless found internal controls either missing or not working as intended. Noncompliant violations have various effects, such as making them subject to court challenges, causing inaccurate penalty assessments, using unreliable system data in decision-making, and hampering MSHA's ability to ensure vacate actions are justified or to identify trends that signal a need for additional training.

ISSUED AND MODIFIED VIOLATIONS CONTAINED ERRORS

We found thousands of violations that were either written up incorrectly or missing required information. A single error on a violation form can force MSHA to modify or vacate the violation. See Exhibit 1 for an example of a violation form and the different entries where an inspector can make a mistake.

MSHA developed the Citation and Order Writing Handbook for its workforce to follow in writing violations that comply with the Mine Act. It provides general guidance that applies to all violation types and detailed instructions unique to each violation type. MSHA has trained its workforce on these Handbook requirements and has implemented supervisory oversight controls and many system controls to help ensure violations complied with its Handbook and the Mine Act. The various supervisory oversight controls include the following:

- Continuous review of inspection documents by the supervisor, which includes all violations issued by inspectors for each inspection;
- Periodic reviews by the MSHA headquarters accountability office or other MSHA districts of inspection documents, which include violations written during the inspection(s) reviewed; and
- Periodic reviews done by supervisors and Assistant District Managers of inspection documents, which include violations written during the inspection(s) reviewed.

Despite MSHA's efforts, errors still existed. We analyzed more than 736,000 violations MSHA issued between January 2013 and September 2019 to identify violations not meeting the detailed requirements for each violation type found in MSHA's Citations and Order Writing Handbook. Our analysis found thousands of violations containing a variety of errors², including:

- More than 3,000 violations lacked required phrases for specific violation types, while more than 750 additional violations included modified phrases that only partially addressed the required phrase's intent;
- More than 1,000 violations did not discuss key aspects (e.g., when and to whom) of oral orders issued by inspectors to mine personnel upon seeing an imminent danger;
- More than 2,000 violations had improperly completed "Area or Equipment" entries where inspectors listed the specific area of the mine or piece of equipment from which miners were to be withdrawn;

² A single violation may contain multiple errors.

- 606 violations had the “Area or Equipment” entry left blank when the inspector initially issued the violation to the operator;
- 81 violations incorrectly cited regulations or Mine Act sections;
- More than 300 violations no longer complied with the Mine Act or MSHA Handbook requirements after they were modified due to settlements or court decisions; and
- More than 900 violations that had to be issued in a certain order and had to refer to a specific prior violation likely were not issued in the correct order or did not correctly reference prior violations.

These errors occurred for a variety of reasons:

- Inspectors did not sufficiently use the Handbook when developing violations;
- Inspectors lacked additional guidance that would enable them to correctly determine the “subsequent inspection” when multiple inspections overlap and write up violations in the same order identified;
- Inspectors did not always document the specific location in their “Area or Equipment” entry and were confused as to when to list “No area affected” as the entry;
- Examples used in the Handbook itself did not follow Handbook requirements;
- When violations were modified due to settlements or court decisions, personnel made errors when entering the violation changes in the system. Some settlements or court decisions did not include additional modifications to those violations (e.g., changes to violation type or the S&S supporting rating) needed to remain in compliance with the Handbook or the Mine Act;³ and
- Missing or improperly designed system controls.

Additionally, we found the following system controls were missing or not working as intended in MCAS or the inspector’s mobile device:

- *Include all required phrases automatically in the “Condition or Practice” entry when the inspector selects 103(a) citations, 104(g)(1) orders, 104(d) violations, 104(e) orders, or 107(a) orders.* There was a system control to add the phrase for 104(d) violations, but it was not working as intended.

³ An example is when a 104(d)(1) citation’s S&S rating was modified from “Yes” to “No.” Because section 104(d)(1) of the Mine Act requires the citation to be S&S, this means the violation type needed to be modified from a 104(d)(1) citation to a 104(a) citation that does not require S&S to remain in compliance with the Mine Act.

The system control was missing to add the phrase for the other violation types;

- *Ensure 104(d) orders and 104(g)(1) orders cite eligible CFR sections.* A system control was present to compare the CFR listed on the violation against the eligible CFR sections listed in the Citation and Order Writing Handbook for 104(d) orders and 104(g)(1) orders, but it was not working as intended;
- *Verify the correlation between the CFR or Mine Act sections of 104(b) orders and the original violation.* A system control was missing to compare the CFR and Mine Act entries of the 104(b) order against the CFR and Mine Act entries of the original violation to ensure they matched;
- *Verify 104(d) violations and 104(e) violations reference the correct parent violation by including additional crucial attributes in the system controls, such as issue date, event number, and event start date.* There was a system control to verify the violations were in the correct order, but the control did not verify the violation referenced the specific violation (first) as required in MSHA's Citation and Order Writing Handbook when there were multiple violation choices;
- *Verify orders have the "Area or Equipment" entry populated when initially issuing the violation.* There was a system control to make this entry required for orders, but it was not working as intended;
- *Apply system controls to modifications done directly in MCAS, such as modifications due to court decisions or settlements;*
- *Verify only authorized violation types were being issued.* There were system controls to verify the violation types, but the control allowed invalid violation types of a 104(a) notice during initial issuance and 104(a) orders and a 103(k) citation through modifications; and
- *Identify modifications needed to other violations when vacating or modifying a violation.* A system control was missing to identify other violations impacted by a modification or vacated violation, such as referenced violations or violations written in a specific order.

There are several effects of errors in violations. Most notably, errors in completing the "Area or Equipment" entry of an order can lead to the wrong part of the mine being shut down. Worse yet, it can lead to no part of the mine being shut down if the inspector incorrectly lists "No area affected."

Importantly, errors can also make violations vulnerable to legal challenge. MSHA's own Handbook states, "a significant number of violations have been overturned during the legal process" for reasons such as failure to cite the applicable standard or correctly describe the specific area of the mine affected. We saw this in our testing when MSHA vacated some of the 104(d) violations

citing ineligible regulations. Even if violations are not vacated, errors can also require MSHA to spend additional effort to modify the violations.

In addition, errors can affect MSHA's penalty assessment process. We found two ways such errors can affect penalty assessments.

- Accurate citing of regulations or Mine Act sections is important because the criteria in MSHA's penalty assessment includes the number of repeat violations of the same standard in a preceding 15-month period.
- For violations that must be written in a certain order, penalty assessment amounts increase as violations move up the order. Therefore, having the correct violation type is critical for MSHA to administer an accurate penalty assessment.

Finally, errors affect the reliability of MSHA's data. We found violations with invalid violation types, violations marked S&S or not S&S whose supporting ratings did not match with those markings, and violations with incorrect negligence or S&S markings. These inaccuracies affected MSHA's reporting and the public's use of the "violations" dataset available on MSHA's website.

INSPECTORS VACATED VIOLATIONS WITHOUT PROVIDING CLEAR, SPECIFIC REASONS

For the 12,278 vacated violations issued between January 1, 2013, and September 30, 2019, more than 20 percent had either vague reasons listed or no reasons listed at all. Examples of the vague reasons included the following:

- "issued in error,"
- "after further review, this citation is vacated,"
- "after further review it was determined that a citation was not justified," and
- "upon further review it has been determined that this is not a violation."

In the above examples, a clear, specific reason would have told the reader what the error actually was. For example, the error could have been an incorrect mine identification number or a wrong regulation cited. The system does not allow MSHA to modify the mine identification number on a violation, but MSHA could modify an incorrect regulation. Given that we heard a concern that MSHA had improperly vacated some violations, this type of detail is important to ensure the integrity of the process. Stating the obvious, that a violation was "issued in error," does not inform the reader about the actual error that occurred. Thus, there is no way to know if the "error" was in fact an error. This omission clouds critical accountability when vacating violations. Knowing specifically why each violation

is vacated is a required part of the violation process. Requiring adherence to specific reasoning would help MSHA identify weak areas that should be addressed by, for example, providing more training to inspectors on how to write up certain types of violations.

GAO's *Standards for Internal Control in the Federal Government* requires federal agencies to maintain appropriate documentation of all transactions. MSHA also has its own internal policies that require proper documentation of transactions, such as the following:

- Program Policy Manual Volume I requires personnel to state the reason for vacating an issuance on the violation form and
- The Citation and Order Writing Handbook requires personnel to state **specific** reasons for vacating an issuance on the violation form.

Vacating violations without documenting clear, specific reasons has been a long-standing issue. MSHA's own accident investigations, conducted from 2003 through 2012, found personnel had not documented clear, specific reasons for vacating violations. See Exhibit 2 for extracts from these accident investigations.

The lack of specificity in the reasons for vacated violations occurred because inspectors did not follow guidance due to insufficient training and due to insufficient supervisory review of violations. Vague or missing reasons make it difficult if not impossible to determine if the actions taken were justified and identify trends that signal a need for additional training. There is also the potential that a violation is vacated prior to the listed hazard being abated, meaning the hazard could remain unabated, unnecessarily prolonging the risk to miner safety.

MSHA GUIDANCE WAS INSUFFICIENT IN CERTAIN INSTANCES

MSHA had not developed sufficient guidance for how timely violations should record in MCAS or when multiple safeguards could be issued to a single mine. The insufficient guidance affected MSHA's ability to terminate violations and could lead to incorrect violation types, duplicate violations for the same hazard, and penalties avoided.

GUIDANCE WAS INSUFFICIENT FOR TIMELY RECORDING OF VIOLATIONS IN MCAS

MSHA guidance did not sufficiently address recording of violations in MCAS even though recording needs to occur promptly so other MSHA personnel can view

the violations. We found 81 percent of violations in MCAS issued between January 1, 2013, and September 30, 2019, were not uploaded into MCAS until days after inspectors issued them. A couple violations did not appear in the MCAS system for almost two years after issuance. Table 4 shows how many days it took for the 591,200 violations to be uploaded into MCAS after inspectors issued the violations (“issue date”).

Inspectors issue violations at the mine using a mobile device, such as a laptop or tablet.

TABLE 4: DAYS LAG IN RECORDING VIOLATIONS

1-6	7-13	14-29	30-89	90-179	180-359	360+
545,006	38,838	5,397	1,507	200	223	29

Inspectors upload the violation data from their mobile device to MCAS where the rest of MSHA personnel can view them or download the violation data to their mobile device.

MSHA’s guidance was not sufficient because MSHA had not developed a metric for how long it should take violations to appear in MCAS or developed an internal control to verify violations appear in MCAS in a timely manner. Implementing a metric should also help MSHA oversee how personnel are correcting violations in its “status list” report. The report lists violations where the system identified a problem with the violation. Our review of a status list from 2018 showed 34 pages of violations with issues that still needed to be addressed, dating back as far as 2006. Even if the inspector uploaded the violation on time, it will not record in MCAS until someone corrects the problem with the violation.

Unless inspectors upload violations into MCAS in a timely manner, other inspectors cannot view them and terminate them. This can affect miner safety because the operator may not have fully abated the hazard, but this is not known until an inspector checks the corrective actions taken. This can only happen if an inspector knows the violation exists. Moreover, since multiple inspectors may visit the same mine, they must be able to see previously issued violations that may inform their inspections, such as when violations need to be written in a specific order. This can lead to issuing the wrong violation type or a duplicate violation for the same hazard, which we saw as reasons in our analysis for why MSHA vacated violations.

In 2018, MSHA deployed tablets to inspectors that changed how inspectors upload violations. MSHA personnel believe this will help improve timely recording of violations in MCAS. Because we still saw issues with timely recording of violations in MCAS after this change, it shows there is still improvement needed in this area (e.g., connectivity) along with better management of the status list.

GUIDANCE WAS UNCLEAR REGARDING MULTIPLE SAFEGUARDS ISSUED PER MINE

MSHA's guidance was not clear regarding situations when inspectors could issue multiple safeguards for a single mine. Section 314(b) of the Mine Act allows MSHA to issue safeguards to minimize hazards with transportation of people and materials. However, MSHA's Citation and Order Writing Handbook states "[w]hen an inspector identifies a hazard specific to the mine and similar to those already identified in 30 CFR, Subpart O, Sections 75.1403-2 through 75.1403-11, he/she will issue a notice to provide safeguards to the mine operator *if one has not been previously issued*" (emphasis added). Using the Handbook guidance verbatim, we analyzed all safeguards issued between January 1, 2013, and September 30, 2019 to identify mines where MSHA issued more than one safeguard. Our analysis found 265 mines with multiple safeguards citing the same regulation (75.1403). Based on the limited guidance, we concluded some of these safeguards likely should have been citations rather than safeguards.

MSHA's guidance was not clear because it did not address if any situations existed where multiple safeguards could be issued for a single mine. For instance, the Handbook does not address situations such as the same hazard in different parts of the mine, different types of hazards that may be applicable under a single regulation, or if a timeframe applies. As a result, operators likely received the wrong violation type and avoided monetary penalties. Unlike safeguards, citations carry monetary penalties.

SUPERVISORY REPORTS WERE INCOMPLETE AND INACCURATE

Supervisory reports were incomplete and inaccurate. In all six districts we analyzed, we found a number of issues with the supervisory reports, such as incomplete checklists or checklist questions that were incorrectly or incompletely answered. We reviewed checklists in three Coal and three Metal and Nonmetal districts.

These checklists are a key supervisory oversight tool, which a supervisor completes after either reviewing the products (e.g., violations) of a completed inspection or traveling with an inspector during a mine visit. MSHA requires supervisors to complete checklists for each inspector. The checklist had questions covering the four aspects of the violation process we reviewed:

- For each citation/order issued, did the inspector or specialist properly enforce the Mine Act, standards, regulations, approved plans, variances, waivers, and petitions for modifications?
- Did the inspector or specialist properly consider the health and safety of miners first when setting the termination due date and time for each citation issued?
- For each subsequent action issued to extend the termination due date and time for a previously issued citation, did the inspector or specialist properly consider the health and safety of miners and the actions taken by the operator to correct the condition/practice?
- For each citation/order vacated, did the inspector or specialist document proper justification?
- For each Section 104(d) citation/order issued, did the inspector or specialist include the statement “This is an unwarrantable failure to comply with a mandatory standard” in the Condition or Practice section of each citation/order?
- For each order issued, did the inspector or specialists properly consider the full extent of hazards presented and contributed to by the condition/practice when determining the area or equipment affected?
- Were citations/orders issued, modified, or terminated according to policy (Program Policy Manual and Citation/Order Handbook)?
- Were termination due dates established giving primary consideration to the hazard and associated exposure?

The Assistant District Manager (ADM) is supposed to review the supervisor’s checklist as part of a second level review of the inspector’s work and a review of the supervisor’s skills. The checklist completed by the ADM also had to answer questions covering the four violation processes we reviewed:

- Did the supervisor review all inspection reports, forms, citations and orders, and notes for the field activity review?
- Do you agree with the supervisor’s assessment and, if applicable, the corrective actions taken by the supervisor? (listed multiple times in checklist for questions in supervisor checklist)

Our analysis found supervisors did not meet the reporting requirements for each inspector in our sample. Supervisors either did not complete all required supervisory reports or did not complete them correctly. Specifically, supervisors had not completed all the required supervisory reports for 197 of the 414 inspectors in our sample. In addition, in the same sample, we found:

- 210 instances in which supervisory reports were filled out with multiple conflicting answers (e.g., both “yes” and “no”),
- 140 instances in which questions were left blank,

- 17 instances in which questions were missing required dates (e.g., debriefing to inspector), and
- 7 instances in which questions with a “no” answer were missing a required explanation, among other errors.

This is also a long-standing issue. MSHA’s own monitoring efforts found issues with the completion of supervisory reports through its accountability audits and previous accident investigations. See Exhibit 2 for extracts from the accident investigations.

The checklist problems occurred because MSHA did not design some questions appropriately in the checklist, did not sufficiently train staff on how to complete the checklists, or did not sufficiently monitor that supervisors completed the checklists appropriately. For example, the checklist had compound questions that resulted in supervisors providing two conflicting answers (e.g., yes and no, yes and not applicable, or no and not applicable) for a single question.

Insufficient supervisory reviews affect workforce performance. MSHA developed these checklists to ensure inspections happen in accordance with MSHA policies and procedures. This includes reviewing inspection products, such as violations, for completeness and thoroughness. In some cases, supervisors travel with the inspectors on a mine visit to verify the quality of inspections. When supervisors do not use the checklists properly, then the quality of inspections and violations can suffer and affect miner safety.

OIG’S RECOMMENDATIONS

We recommend the Assistant Secretary for Mine Safety and Health:

1. Provide refresher training to inspectors and supervisors on complying with MSHA guidance for each violation type.
2. Provide training on how to determine the subsequent inspection when multiple inspections overlap, enter violations into the system in the same chronological order identified, be specific when writing the “Area or Equipment” entry, and when it is appropriate to list “No area affected” for an order.
3. Update system controls to improve compliance of MSHA violations with the Mine Act and MSHA guidance in the following instances:
 - a. Verify only authorized violation types used;

- b. Include all required phrases automatically in the “Condition or Practice” entry when the inspector selects 103(a) citations, 104(g)(1) orders, 104(e)(1)/104(e)(2) orders, or 107(a) orders;
 - c. Ensure 104(d) orders and 104(g)(1) orders cite eligible CFR sections;
 - d. Verify the correlations between the CFR or Mine Act sections of 104(b) orders and the original violation;
 - e. Verify 104(d)(1) orders, 104(d)(2) orders, 104(e)(1) orders, and 104(e)(2) orders reference the correct “initial action” by including additional crucial attributes in the system controls, such as issue date, event number, and event start date;
 - f. Verify orders have the “Area or Equipment” entry populated when initially issuing the violation;
 - g. Apply system controls to modifications done directly in MCAS, such as modifications due to court decisions or settlements;
 - h. Identify modifications needed to other violations when vacating or modifying a violation;
 - i. Verify the reasonableness of the due dates and provide warnings to inspectors when due dates appear longer than necessary; and
 - j. Provide a warning message to inspectors when trying to issue a safeguard at a mine that would lead to multiple safeguards citing the same regulation issued for a single mine.
- 4. Update the Citation and Order Writing Handbook to clarify situations when multiple safeguards can be issued for a single mine and to correct any examples that do not comply with the instructions listed in the Handbook.
 - 5. Improve the violations termination process by decreasing the percentage of future overdue terminations, improving the use of 104(b) orders, and not allowing due dates to be extended unless for specific, justified reasons listed on the violation form.
 - 6. Provide training on how to write specific supporting reasons on the violation forms or other documentation (e.g., vacate memos) when extending, modifying, or vacating violations.
 - 7. Develop a metric to measure performance and an internal control to verify timely uploading of violations from the inspector’s laptop/tablet into MCAS.
 - 8. Complete periodic reviews to determine whether MSHA personnel are meeting the timely upload and recording of violations in MCAS, terminating violations by the due date, and effectively using 104(b) orders.
 - 9. Simplify the design of the supervisory checklists by revising compound questions into simple questions answerable by a single response (yes, no, or not applicable) and provide refresher training on the quantity completion

requirements, how to properly complete and review the checklist, and the importance of providing feedback using the checklist.

10. Work with the Solicitor's Office and the Federal Mine Safety and Health Review Commission to implement a process to ensure violations listed in settlement agreements or court decisions still comply with the Mine Act and Mathies test.

SUMMARY OF MSHA'S RESPONSE

MSHA generally agreed with our recommendations and stated two had already been addressed during the audit. MSHA noted one of the Mine Act sections OIG cited in the recommendation referred to a "notice" rather than a "violation." We revised this recommendation in the final report.

In its response, MSHA expressed concerns about the balance and tone of the report and the fact that we did not give it credit for improvements resulting from organizational changes it made toward the end of our scope period. Our data analysis covered calendar years 2013 to 2019, and we verified that our audit results existed throughout this period, including after MSHA made the changes it discussed in its response. In our report, we give MSHA credit for improvements when appropriate.

MSHA's full response to this report can be found in Appendix B.

We appreciate the cooperation and courtesies MSHA extended us during this audit. OIG personnel who made major contributions to this report are listed in Appendix C.



Carolyn Hantz
Assistant Inspector General for Audit

EXHIBIT 1: EXAMPLE OF MSHA VIOLATION FORM

Example of MSHA form 7000-3 (Mine Citation/Order Form) that inspectors issue to mine operators when they find a hazard at a mine.

Mine Citation/Order										U.S. Department of Labor Mine Safety and Health Administration																																										
Section I – Violation Data																																																				
1. Date		Mo	Da	Yr	2. Time (24 Hr. Clock)					3. Citation/Order Number																																										
		0	7	0	3	0	8	0					8					4					4					1					0					1					6					5				
4. Served To										5. Operator																																										
RICHARD MORE										CB ENTERPRISES																																										
6. Mine										7. Mine ID																																										
CRUSHED AND BROKEN MINE										5 6 - 0 3 1 1 2 - (contractor)																																										
8. Condition or Practice										8a. Written Notice (103g) <input type="checkbox"/>																																										
<p>The self-cleaning tail pulley of the No. 2 conveyor belt was not guarded. The conveyor was not operating at the time of the inspection but had operated the day before. The guard was lying on the ground. Several feet of dust had accumulated around the guard indicating that it had not been in place for an extended period of time. Employees were required to work in this area when the conveyor was operating. The unguarded conveyor tail pulley was within two feet of an active workplace and was visible to anyone in the area. Miners would be seriously injured if they came in contact with the unguarded pulley.</p>																																																				
See Continuation Form (MSHA Form 7000-3a)																																																				
9. Violation		A. Health Safety Other		B. Section of Act		C. Part/Section of Title 30 CFR																																														
						5 6 - 1 4 1 1 2 b																																														
Section II – Inspector's Evaluation																																																				
10. Gravity:																																																				
A. Injury or Illness (has) (is): No Likelihood <input type="checkbox"/> Unlikely <input type="checkbox"/> Reasonably Likely <input checked="" type="checkbox"/> Highly Likely <input type="checkbox"/> Occurred <input type="checkbox"/>																																																				
B. Injury or illness could reasonably be expected to be: No Lost Workdays <input type="checkbox"/> Lost Workdays or Restricted Duty <input type="checkbox"/> Permanently Disabling <input checked="" type="checkbox"/> Fatal <input type="checkbox"/>																																																				
C. Significant and Substantial (See Reverse): Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																				
D. Number of Persons Affected 0 0 1																																																				
11. Negligence (check one)																																																				
A. None <input type="checkbox"/> B. Low <input type="checkbox"/> C. Moderate <input checked="" type="checkbox"/> D. High <input type="checkbox"/> E. Reckless Disregard <input type="checkbox"/>																																																				
12. Type of Action																																																				
1 0 4 - a - - - - -																																																				
13. Type of Issuance (check one)																																																				
Citation <input checked="" type="checkbox"/> Order <input type="checkbox"/> Safeguard <input type="checkbox"/> Written Notice <input type="checkbox"/>																																																				
14. Initial Action																																																				
A. Citation <input type="checkbox"/> B. Order <input type="checkbox"/> C. Safeguard <input type="checkbox"/> D. Written Notice <input type="checkbox"/> E. Citation/Order Number																																																				
F. Dated Mo Da Yr																																																				
15. Area or Equipment																																																				
16. Termination Due																																																				
Mo Da Yr A. Date B. Time (24 Hr. Clock)																																																				
0 7 0 3 0 8 1 2 0 0																																																				
Section III – Termination Action																																																				
17. Action to Terminate																																																				
THE GUARD WAS REINSTALLED ON THE TAIL PULLEY.																																																				
18. Terminated																																																				
Mo Da Yr A. Date B. Time (24 Hr. Clock)																																																				
0 7 0 3 0 8 1 3 3 0																																																				
Section IV – Automated System Data																																																				
19. Type of Inspection (activity code)																																																				
E 0 1																																																				
20. Event Number																																																				
0 0 8 9 6 6 9																																																				
21. Primary or Mill																																																				
22. Signature																																																				
JANE JONES																																																				
23. AR Number																																																				
0 2 1 3 6																																																				
MSHA Form 7000-3 Mar 85 (Revised)																																																				
104(a) CITATION - "S&S"																																																				

EXHIBIT 2: EXTRACTS FROM MSHA INTERNAL REVIEWS

Various MSHA internal reviews from accident investigations conducted from 2003 through 2012 identified many of the same issues we found during our audit. We provide extracts from them related to the following findings:

- Not terminating violations by the due date,
- Unreasonably long termination due dates,
- Inconsistent use of 104(b) orders,
- Lack of specific reasons for vacated violations, and
- Improperly completed supervisory checklists.

Not terminating violations by the due date

- Aracoma Alma Mine #1 report stated:
 - “Inspectors set the time for abatement at 1 day or less for 77 percent of the citations. However, enforcement personnel did not follow up on 60 percent of all citations by the termination due dates.”
 - “The Logan field office supervisors did not have an effective system to ensure follow up on citations issued at the Aracoma Alma Mine #1 by the termination due date stated on the citations. During the review period, inspectors did not follow up on 60 percent of all citations on or before the termination due dates. In many instances, the inspectors returned to an area of the mine previously cited, but did not reexamine the cited condition during that visit.”
- Sago Mine report stated:
 - “Inspectors did not always terminate citations in a timely manner.”
 - “District 3 supervisors and managers should have recognized these deficiencies during their review of citations, orders, and inspection notes and taken corrective actions.”
- Darby Mine No. 1 report stated:
 - “The level of enforcement was not always appropriate at the Darby Mine.”
 - “While District 7 personnel generally set appropriate abatement times when issuing citations, they did not always return on the termination due dates to determine if the condition had been abated in a timely manner or if an extension of abatement time was justified.”

- “District 7 supervisors, managers, and the conference litigation representatives did not recognize that MSHA policy and procedures were not consistently followed and take appropriate corrective action.”
- No. 5 Mine report stated:
 - “District 11 inspectors set the time for abatement at one day or less for 92 percent of the citations. However, District 11 enforcement personnel did not follow up on a significant number of citations on the termination due dates.”
 - “During interviews with the internal review team, District 11 inspectors stated that their practice was to terminate S&S citations on the termination due dates. They also stated that in some instances the inspectors assigned to the No. 5 Mine were not aware of citations issued by District specialists. This lack of communication resulted in citations not being terminated in a timely manner. On several occasions, citations were issued to mine management not present at the time of issuance, which caused delays in the abatement of violations.”
 - “Inspectors did not always return to the area cited to determine if the condition had been abated in a timely manner or if an extension of abatement time was justified. While District 11 personnel set appropriate abatement times when issuing citations, they did not always return on the termination due dates. As a result, inspectors could not always determine if the cited condition was corrected but had reoccurred, or if the condition warranted the issuance of a section 104(b) order. Supervisors and inspectors did not have an effective method for tracking and directing the timely termination of violations at the No. 5 Mine.” “District 11 supervisors and managers should have recognized these deficiencies during their review of citations, orders, and inspection notes and taken corrective action.”

Unreasonably long termination due dates

- Upper Big Branch (UBB) Mine South report stated:
 - “Inspector documentation indicates that a reasonable abatement time was initially established for more than three-fourths of the citations issued at UBB during the review period. In the remaining cases, the Internal Review team believes the length of time allowed to abate the violation was longer than appropriate for the documented condition or practice.”

- “In 45 of the 49 instances when inspectors extended termination due times, they did not document a reasonable basis for the extension or they allowed an excessive amount of time based on the documentation.” “There were at least 12 instances where citations were extended for the convenience of MSHA, including five citations that were extended because an inspector was injured. Multiple citations were extended to allow time for MSHA to review ventilation plan submittals, including six citations issued for noncompliance with respirable dust standards which required a plan revision. These extensions, which effectively set a new termination due date, did not show that the primary consideration was the health and safety of the miners. In his interview, the Assistant District Manager with responsibility for the Mt. Hope Field Office stated that he monitored weekly oversight reports of past due citations. He indicated that inspectors were directed to provide him a memorandum explaining why any citation was not terminated within 15 days of its due date. MSHA Headquarters also generated quarterly oversight reports that listed ‘Citations Past 30 Days Due When Terminated.’ Such oversight was intended to ensure timely abatement of known violations and associated hazards. However, the system allows inspectors to prevent un-terminated citations from being listed on the oversight reports by issuing extensions.”
- Darby Mine No. 1 report stated “some abatement times appeared extensive and did not always appear justified.”

Inconsistent use of 104(b) orders

- Sago Mine report stated “while they generally set appropriate abatement times, inspectors extended some citations for an unjustifiable amount of time, instead of issuing section 104(b) orders.”
- No. 5 Mine report stated “while District 11 personnel set appropriate abatement times when issuing citations, they did not always return on the termination due dates. As a result, inspectors could not always determine if the cited condition was corrected but had reoccurred, or if the condition warranted the issuance of a section 104(b) order.”

Lack of specific reasons for vacated violations

- Upper Big Branch Mine South report stated, “Inspectors provided adequate documentation for vacating two of the five enforcement actions. In one case, an inspector vacated a citation with a justification that

indicated that, after consulting with an MSHA ventilation specialist, it was decided that this citation was issued in error. The inspector did not explain the reason provided by the specialist. None of the supervisors and only one inspector documented the reasons and circumstances for vacating the enforcement actions.”

- Sago Mine report stated, “District 3 supervisors did not submit notes with the inspection report describing the reasons why enforcement actions were vacated.”
- No. 5 Mine report stated:
 - “Excluding Safety and Health (S&H) Conferences, seven citations and one order were vacated by the issuing inspectors during the review period. The reason for subsequent actions shown on MSHA Form 7000-3a typically stated that based upon additional facts and circumstances, the citation (or order) is hereby vacated. The supervisor did not submit notes with the inspection reports describing the reasons or circumstances that caused the enforcement action to be vacated.”
 - “Based on interviews, the inspector was then instructed by the supervisor to vacate the order and issue a second citation. Although the inspector did not agree with the decision, the §104(b) order was vacated and the original citation was terminated on July 25, 2001. Also on that date, the inspector issued another citation for a violation of 30 CFR 75.333(h). The justification for vacating the §104(b) order, as documented on MSHA Form 7000-3a, was ‘Based on additional information presented, this order is hereby being vacated.’ No notes were provided in the inspection report by the inspector or the supervisor for this action.”
 - “District 11 personnel did not always clearly describe the reasons for vacating citations and orders on MSHA Form 7000-3a. District 11 supervisors did not submit notes with the inspection report describing reasons that caused enforcement actions to be vacated.”

Improperly completed supervisory checklists

- Upper Big Branch Mine South report stated:
 - “Supervisors did not document required information on many of the AA and FAR forms. Some supervisors did not document the correct event activity code on the forms, the dates of Uniform Mine File reviews, or the dates when inspectors were debriefed. One acting supervisor documented conducting five combined AAs and FARs during the review period. He did not fully complete any of the forms, and did not sign four of the forms. During interviews, acting supervisors stated they were not trained to perform the supervisory

- duties they were assigned. While there was no requirement for acting supervisors to be trained in these duties, they stated that such training would have been beneficial.”
- “Twenty-eight FARs (which included some from Technical Division work groups) were conducted on incomplete inspections. During interviews, supervisors stated that they were aware that FARs had to be conducted on completed events. One specialist supervisor indicated it would be difficult to conduct a FAR on a completed event because his specialists usually did not conduct complete events. Another specialist supervisor stated he had never thought about doing a FAR on a completed event. Interviews also revealed that most supervisors were not aware of all of the elements required to be evaluated during a FAR. Some supervisors confused the requirements for conducting FARs with the requirements for conducting AAs.”
 - Aracoma Alma Mine #1 report stated:
 - “Many of the deficiencies identified by the internal review team during this internal review should have been identified through adequate oversight by the District 4 Manager, Assistant District Manager and Logan field office supervisors. The required supervisory and second level reviews for all inspection activities for the Logan field office were incomplete, and the reviews conducted at the Aracoma Alma Mine #1 were not adequate. Logan field office supervisors did not document the required number of supervisory level reviews between January 1 and December 31, 2005.”
 - “The supervisory FAR/AA review conducted at the Aracoma Alma Mine #1 was inadequate because the review did not identify several deficiencies identified by the internal review team.” “The Assistant District Manager with oversight responsibility for the Logan Field office did not document that any second level reviews were conducted during calendar year 2005. As a result, the failure of Logan Field Office supervisors to conduct required FAR/AA reviews went undetected and uncorrected. Additionally, the District 4 Manager did not hold the Assistant District Manager accountable for conducting required second level reviews during calendar year 2005.”
 - Sago Mine report stated, “The internal review team determined that both the supervisory and second level reviews for inspection activities were not adequate. The first and second level reviews conducted by District 3 managers did not identify several procedural and enforcement deficiencies. The Assistant District Manager - Inspection Division did not document any second level reviews.”
 - Darby Mine No. 1 report stated, “The second level reviews did not provide the necessary oversight to correct many of the issues identified by both

- District 7 and headquarters reviews. While supervisors and managers conducted first and second level reviews, a number of deficiencies were not addressed.” “The field office supervisor conducted accompanied and field activity reviews. The internal review team identified that first level reviews did not provide effective oversight to prevent recurrences of issues previously identified.” It also stated, “District management did not ensure accountability relative to supervisory review and oversight.”
- No. 5 Mine report stated, “The internal review team determined that both the supervisory and second level reviews for inspection activities at the No. 5 Mine were not adequate. These reviews did not identify several procedural and enforcement deficiencies documented in the No. 5 Mine inspection reports.”

EXHIBIT 3: MINE ACT AUTHORITY FOR VIOLATIONS

The Mine Act gives MSHA the authority to issue notices, safeguards, citations, and orders. Below are the applicable sections of the Mine Act for each violation type.

One section of the Mine Act discusses notices:

- Section 104(e)(1) states to issue a written notice upon finding a pattern of violations (POV) of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a safety or health hazard. These are called 104(e)(1) written notices or POV written notices.

One section of the Mine Act discusses safeguards:

- Section 314(b) allows other safeguards adequate to minimize hazards with respect to transportation of men and materials. These are called 314(b) safeguards.

Two sections of the Mine Act discuss citations:

- Section 104(a) states to issue a citation to the operator in writing and describe the nature of the violation with a reference to the provision of the act, standard, rule, regulation, or order alleged to have been violated. The citation shall include a reasonable time for abatement of the violation. These are called 104(a) citations, and
- Section 104(d)(1) allows issuing a citation upon finding a violation of a mandatory health or safety standard that could significantly and substantially contribute to the cause and effect of a safety or health hazard and was caused by an unwarrantable failure of the operator. These are called 104(d)(1) citations.

Various sections of the Mine Act discuss orders:

- Section 103(k) allows issuing an order in the event of an accident occurring in a mine. These are called 103(k) orders;
- Section 104(b) allows issuing an order upon finding that a 104(a) citation has not been totally abated with the allowable period of time. These are called 104(b) orders;
- Sections 104(d)(1) and 104(d)(2) allow issuing an order upon finding another violation of a mandatory health or safety standard caused by an

- unwarrantable failure of the operator during the same or subsequent inspection within 90 days after issuing a 104(d)(1) citation. These are called 104(d)(1) orders and 104(d)(2) orders;
- Sections 104(e)(1) and 104(e)(2) allow issuing an order upon finding another violation of a mandatory health or safety standard that could significantly and substantially contribute to the cause and effect of a safety or health hazard within during the same or subsequent inspection within 90 days after issuing a 104(e)(1) written notice. These are called 104(e)(1) orders and 104(e)(2) orders; and
 - Section 104(g)(1) allows issuing an order upon finding a miner who has not received requisite safety training. These are called 104(g)(1) orders.
 - Section 107(a) allows issuing an order upon finding an imminent danger at the mine. These are called 107(a) orders.

APPENDIX A: SCOPE, METHODOLOGY, & CRITERIA

SCOPE

Our scope for the audit included the more than 736,000 violations MSHA issued between January 1, 2013, and September 30, 2019.

At MSHA headquarters, we interviewed personnel in various program areas: Coal Mine Safety & Health; Metal and Nonmetal Mine Safety & Health; Education Policy and Development; Program Evaluation and Information Resources; and the Office of Assessments.

We did site work at three Coal Districts (5, 7, and 10) and three Metal/Nonmetal Districts (Northeastern, Rocky Mountain, and Western). At the districts, we interviewed the District Managers, Assistant District Managers for Technical Division, Assistant District Managers for Enforcement Division, Field Office Supervisors, inspectors, and specialists.

METHODOLOGY

We conducted this performance audit in accordance with generally accepted government auditing standards. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

To answer our audit objective, we did the following:

- Interviewed MSHA headquarters, district, and field office personnel to learn the violations process;
- Interviewed people who submitted hotline complaints to the OIG related to allegations of inappropriate modifying or vacating of violations;
- Interviewed a representative from the United Steel Workers Union, United Mine Workers of America Union, and the Solicitor's Office within the Department of Labor;
- Reviewed public laws, United States Code, and MSHA guidance related to the violations process;
- Analyzed MCAS data for more than 736,000 violations issued between January 1, 2013, and September 30, 2019;

- Reviewed system reports or inspection reports for select violations. This included documentation such as the MSHA Form 7000-3 (Mine Citation/Order Form), MSHA Form 7000-3a (Mine Citation/Order Continuation Form), inspectors' field notes, and vacate memos (if prepared);
- Reviewed fiscal year (FY) 16 supervisory checklists at six MSHA districts;
- Analyzed internal controls related to the violation process; and
- Reviewed dockets for modified violations no longer complying with the Mine Act or MSHA guidance.

We assessed the reliability of computer-processed data. Through our testing, we found the data was generally complete but sometimes inaccurate. For completeness, there was one field (citation numbers) we could not determine was complete because the numbers ranged over nine million numbers and MSHA's method to distribute those numbers to inspectors created numerous gaps to explore. For example, the numbers ranged from 1,000,120 to 9,988,634 for the more than 736,000 violations issued between January 1, 2013, and September 30, 2019. However, this was the best available data. For accuracy, we found violations that no longer complied with MSHA guidance or the Mine Act. We addressed these accuracy issues in our report and made recommendations to correct them going forward, such as adding system controls and providing additional training.

CRITERIA

We used the following key criteria to answer our audit objective:

- Federal Mine Safety and Health Act of 1977, as amended (Mine Act)
- Title 30 Code of Federal Regulations (2019)
- Program Policy Manual Volume I (November 2013)
- Citation and Order Writing Handbook for Coal Mines and Metal and Nonmetal Mines (PH08-I-1 March 2008 and PH13-I-1(1) December 2013)
- Coal Mine Safety and Health Supervisor's Handbook (AH08-III-1 February 2008 and AH14-III-4 January 2014)
- Metal and Nonmetal Mine Safety and Health Supervisors Handbook (AH09-III-1(1) June 2009)

- MSHA Standardized Information System (MSIS) User Manual, April 17, 2015
- Inspectors' Portable Applications for Laptops (IPAL) User Manual, January 19, 2016
- Various MSHA internal reviews for accident investigations:
 - No. 5 Mine, Jim Walter Resources, Inc., Brookwood, Tuscaloosa County, Alabama, January 24, 2003
 - Aracoma Alma Mine #1, Aracoma Coal Company, Inc., Stollings, Logan County, West Virginia, June 28, 2007
 - Darby Mine No. 1, Kentucky Darby LLC, Holmes Mill, Harlan County, Kentucky, June 28, 2007
 - Sago Mine, Wolf Run Mining Company, Sago, Upshur County, West Virginia, June 28, 2007
 - Upper Big Branch Mine-South, Performance Coal Company, Montcoal, Raleigh County, West Virginia, March 6, 2012

APPENDIX B: AGENCY'S RESPONSE TO THE REPORT

U.S. Department of Labor

Mine Safety and Health Administration
201 12th Street South, Suite 401
Arlington, Virginia 22202-5452



MAR 30 2021

MEMORANDUM FOR: CAROLYN RAMONA HANTZ
Assistant Inspector General for Audit

FROM: *Jeannette J. Galanis*
JEANNETTE J. GALANIS
Deputy Assistant Secretary for Policy
For Mine Safety and Health Administration

SUBJECT: Response to the Office of the Inspector General's (OIG) Draft
Audit Report, *MSHA Can Improve How Violations Are Issued,
Terminated, Modified, and Vacated*

The Mine Safety and Health Administration (MSHA) appreciates the opportunity to comment on the work the OIG performed in evaluating MSHA's citation and order writing process. MSHA understands the importance of the program and the necessity for operators to comply with health and safety standards to ensure the health and safety of miners.

Further, MSHA would like to thank OIG for incorporating MSHA's comments into the report, as to show a more balanced picture of circumstances surrounding their findings. However, MSHA does have concerns over the objectivity of information presented in the report and its timeliness. Generally Accepted Government Auditing Standards (GAGAS), as prescribed in Chapter 9 "Reporting Standards for Performance Audits" of the General Accountability Office's (GAO) 2018 revision to their *Government Auditing Standards* publication (Yellow Book), has guidance MSHA recommends OIG take into consideration. Specifically, paragraphs 9.17b-c (objectivity) and 9.17g (timeliness).

1. Objectivity

Paragraph 9.17b of the Yellow Book states:

Objective means that the presentation of the report is balanced in content and tone. A report's credibility is significantly enhanced when it presents evidence in an unbiased manner and in the proper context. This means presenting the audit results impartially and fairly. This balanced tone can be achieved when reports present sufficient, appropriate evidence to support conclusions while refraining from using adjectives or adverbs that characterize evidence in a way that implies criticism or unsupported conclusions.

MSHA's response did not include a page numbered "page 2."

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Additionally, with respect to termination and abatement due dates, the OIG mistakenly refers to extended due dates as "overdue" due dates, and wrongly concluded that "extended" due dates means that miners are exposed to hazards. Once a hazard has been identified, it is the operator's responsibility to abate the hazard, and if this cannot be done immediately, the operator will danger off the hazardous areas or remove equipment from use, etc., to assure miners are not exposed to the hazard. For example, an area with an inadequate roof may take time to abate and need multiple extensions to terminate the citation depending on the conditions of the mine, materials needed, and the time it would take to get materials. Moreover, it may take additional time for MSHA inspectors to physically return to the mine and terminate the citation. In such a circumstance, the mine operator would danger off the area to assure miners are not exposed. The OIG's conclusion that citations that have "overdue" (extended) due dates means the hazards have been unabated, thereby exposing miners to hazards longer than necessary, or putting the safety of miners in jeopardy is incorrect.

2. Timeliness

Paragraph 9.17b of the Yellow Book states:

To be of maximum use, providing relevant evidence in time to respond to officials of the audited entity, legislative officials, and other users' legitimate needs is the auditors' goal. Likewise, the evidence provided in the report is more helpful if it is current. Therefore, the timely issuance of the report is an important reporting goal for auditors.

OIG's audit scope analyzed violations issued between January 1, 2013 and September 30, 2019. This is problematic. During the pendency of this audit, there were two Administrations, three by the time of the issuance of this report, and multiple changes implemented at the Department of Labor and MSHA that were not addressed by the report. Specifically, the implementation of DOL's Shared Services initiative, the modernization of MSHA systems, and numerous updates to policies and procedures. The OIG did not adjust their scope to reflect the changes, nor did they significantly interact with MSHA subject matter experts post-2017 to understand the impacts of the changes taking place. As a result, the OIG missed a meaningful opportunity to provide recommendations tailored to MSHA's current environment.

Nonetheless, MSHA acknowledges there are always opportunities for improvement and offers the following comments in response to the OIG recommendations.

Recommendation 1: Provide training to inspectors and supervisors on complying with MSHA guidance for each violation type.

MSHA Response: MSHA agrees with the spirit of this recommendation, as demonstrated by the fact we provide 35 hours of citation and order writing training for entry level inspectors and a refresher citation and order writing review course for journeyman training. Additionally, the

Agency provides citation and order writing review training for field office supervisors. MSHA will review how it may use its current training courses, if necessary, to provide additional guidance to inspectors or supervisors.

Recommendation 2: Provide training on how to determine the subsequent inspection when multiple inspections overlap, enter violations into the system in same chronological order identified, be specific when writing the “Area or Equipment” entry, and when it is appropriate to list “No area affected” for an order.

MSHA Response: MSHA will address this recommendation, as necessary, in its existing journeyman and entry level inspector training programs.

Recommendation 3: Update system controls to improve compliance of MSHA violations with the Mine Act and MSHA guidance in the following instances:

- a. Verify only authorized violation types used
- b. Include all required phrases automatically in the “Condition or Practice” entry when the inspector selects 103(a) citations, 104(g)(1) orders, 104(e)(1)/104(e)(2) orders, or 107(a) orders.
- c. Ensure 104(d) orders and 104(g)(1) orders cite eligible CFR sections.
- d. Verify the correlations between the CFR or Mine Act sections of 104(b) orders and the original violation.
- e. Verify 104(d) violations and 104(e) violations reference the correct parent violation by including additional crucial attributes in the system controls, such as issue date, event number, and event start date.
- f. Verify orders have the “Area or Equipment” entry populated when initially issuing the violation.
- g. Apply system controls to modifications done directly in MCAS, such as modifications due to court decisions or settlements.
- h. Identify modifications needed to other violations when vacating or modifying a violation.
- i. Verify the reasonableness of the due dates and provide warnings to inspectors when due dates appear excessively long.
- j. Provide a warning message to inspectors when trying to issue a safeguard at a mine that would lead to multiple safeguards citing the same regulation issued for a single mine.

MSHA Response: MSHA will review the recommended modifications and impacts to data reporting to determine what, if any, systems controls are necessary. However, MSHA cannot agree to the recommendation as written because it contains incorrect references to certain regulatory requirements (e.g. recommendation 3e. - 104(e) addresses issuance of a notice and is not a violation).

Recommendation 4: Update the Citation and Order Writing Handbook to clarify situations when multiple safeguards can be issued for a single mine and to correct any examples that do not comply with the instructions listed in the Handbook.

MSHA Response: MSHA agrees with the spirit of the recommendation but does not intend to update the text of the Citation and Order Writing handbook. MSHA has already addressed this issue to ensure compliance with the Mine Act, and the Agency has instructed inspectors to issue safeguards under the specific criteria in the standard. We will review whether additional examples need to be included in the handbook.

Recommendation 5: Improve the violations termination process by decreasing the percentage of future untimely terminations, improving the use of 104(b) orders, and not allowing due dates to be extended unless for the specific, justified reasons listed on the violation form.

MSHA Response: MSHA disagrees with the OIG's use of "abate" and "terminate" as synonyms in this report and disagrees with the OIG's conclusions, which lead to this recommendation. MSHA will assure the topic of citation/order termination is covered in journeyman and entry level inspector training.

Recommendation 6: Provide training on how to write specific supporting reasons on the violation forms or other documentation (e.g., vacate memos) when extending, modifying, or vacating violations.

MSHA Response: MSHA will assure this recommendation is addressed in existing journeyman training and entry level inspector training.

Recommendation 7: Develop a metric to measure performance and an internal control to verify timely uploading of violations from the inspector's laptop/tablet into MCAS.

MSHA Response: MSHA believes the spirit of this recommendations is already addressed. MSHA's Inspector Application System (IAS) has a built-in control mechanism to determine when violations transmitted for upload have not occurred and will automatically resend on the next upload action. Additionally, the inspectors and MCAS maintain transaction logs that show the status of individual uploads and can be used to address this recommendation. MSHA will use this information along with measuring the average time to upload violations to ensure the Agency is trending in the right direction. MSHA will continue review Agency data to determine if there are outliers and address appropriately, as necessary.

Recommendation 8: Complete periodic reviews to determine whether MSHA personnel are meeting the timely upload and recording of violations in MCAS, terminating violations by the due date, and effectively using 104(b) orders.

MSHA Response: MSHA agrees with the spirit of this recommendation. Since Recommendation 7 captures the substance of this Recommendation, please see response to Recommendation 7.

Recommendation 9: Simplify the design of the supervisory checklists by revising compound questions into simple questions answerable by a single response (yes, no, or not applicable) and

provide refresher training on the quantity completion requirements, how to properly complete and review the checklist, and the importance of providing feedback using the checklist.

MSHA Response: The Mine Safety and Health Enforcement Supervisors Handbook was updated in December 2020. The updates to the handbook also included revisions to the checklists that addressed the OIG's concerns. This recommendation should be closed. See attached.

Recommendation 10: Work with the Solicitor's Office and the Federal Mine Safety and Health Review Commission to implement a process to ensure violations listed in settlement agreements or court decisions still comply with the Mine Act and Mathies test.

MSHA Response: MSHA agrees with the importance of this recommendation and ensuring violations listed in settlement agreements comply with the Mine Act, and Commission decisions accurately reflect the outcome of the contest proceeding. Further discussions, however, will be needed to determine what, if any, changes are necessary to address this recommendation.

We appreciate the opportunity to comment on the report. If you have any questions or need further information, please contact Reza Noorani, Office of Program Policy Evaluation (OPPE) Chief at noorani.reza@dol.gov

APPENDIX C: ACKNOWLEDGEMENTS

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