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Office of Inspector General—Office of Audit

**REPORT TO THE MINE SAFETY
AND HEALTH ADMINISTRATION**



**COVID-19: MSHA DID NOT COMPLETE
OR ACCURATELY REPORT
MANDATORY INSPECTIONS**

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BRIEFLY...

COVID-19: MSHA DID NOT COMPLETE OR ACCURATELY REPORT MANDATORY INSPECTIONS

October 17, 2023

WHY OIG CONDUCTED THE AUDIT

The Federal Mine Safety and Health Act of 1977 requires each underground mine to be inspected in its entirety at least four times a year and each surface mine in its entirety at least two times a year. On behalf of the U.S. Secretary of Labor, the Mine Safety and Health Administration (MSHA) conducts mandatory inspections to prevent death, illness, and injury at mines and promote safe and healthy work environments for miners.

The OIG has long-standing concerns regarding MSHA's operational risks associated with its mandatory inspections program and how such risks impact MSHA's mission to protect the lives of miners.

WHAT OIG DID

Based on these concerns, we performed this audit to determine the following:

Did MSHA complete mandatory safety and health mine inspections before and during the COVID-19 pandemic?

We interviewed MSHA personnel, reviewed MSHA policies, analyzed 78,598 mandatory inspections ending in Fiscal Year 2018 through Fiscal Year 2021, and evaluated MSHA's inspection completion data.

READ THE FULL REPORT

<https://www.oig.dol.gov/public/reports/oa/2024/19-24-001-06-001.pdf>

WHAT OIG FOUND

MSHA did not complete an estimated 1,589 mandatory safety and health mine inspections before and during the COVID-19 pandemic.

MSHA did not complete an estimated 1,589 mandatory mine inspections during Fiscal Year 2018 through Fiscal Year 2021 although it reported a nearly 100 percent completion rate. These were largely due to inspections eliminated from idle mine visits and errors in accounting for the types of activities performed. This occurred because MSHA had not effectively improved the design or execution of its internal control system since a 2011 OIG audit found similar internal control issues with the mandatory inspections program. This led to missed opportunities to protect miners by identifying hazards to miners and requiring corrections.

Weaknesses in MSHA's ability to accurately determine a mine's status increased the risk of MSHA not completing mandatory inspections. We identified weaknesses related to seven areas that generally affected when or how often to conduct a mine status verification, what aspects to check, and what tools to use. Breakdowns in MSHA's internal control system created these weaknesses, and increased the risk of MSHA incorrectly calculating inspections required and not completing inspections.

Other issues affected MSHA's ability to accurately calculate and report completed mandatory inspections. The issues included inaccurate or incomplete data, ineffective communication, and missing policies. These increased the likelihood of MSHA incorrectly reporting to Congress and the public how many inspections it completed. This led to MSHA incorrectly reporting for fiscal years 2019, 2020, and 2021. As a result, Congress was unaware of the increased risk to miners given the lower number of inspections MSHA had performed.

WHAT OIG RECOMMENDED

We made 11 recommendations to improve the policies, processes, and system data for the mandatory inspections program. MSHA generally agreed with our recommendations.

TABLE OF CONTENTS

INSPECTOR GENERAL’S REPORT 1

RESULTS 3

 MSHA Did Not Complete an Estimated 1,589 Mandatory Mine
 Inspections Although It Reported a Nearly 100 Percent Completion
 Rate 4

 Weaknesses in MSHA’s Ability to Accurately and Timely Determine
 a Mine’s Status Increased the Risk of MSHA Not Completing
 Mandatory Inspections 12

 Other Issues Affected MSHA’s Ability to Accurately Calculate and
 Report Completed Mandatory Inspections 27

CONCLUSION 38

OIG’S RECOMMENDATIONS 39

 OIG Analysis of Management’s Comments 40

EXHIBIT 1: MSHA ENFORCEMENT ACTIVITY CODES 42

EXHIBIT 2: MSHA FORM 2000-209, MINE STATUS DEFINITIONS 45

EXHIBIT 3: MSHA FORM 7000-2 QUARTERLY MINE EMPLOYMENT AND
COAL PRODUCTION REPORT 46

EXHIBIT 4: ACCIDENT DETAILS FROM MINES NOT REQUIRING
MANDATORY INSPECTIONS 47

APPENDIX A: SCOPE AND METHODOLOGY 50

APPENDIX B: AGENCY’S RESPONSE TO THE REPORT 54

APPENDIX C: ACKNOWLEDGMENTS 59



INSPECTOR GENERAL'S REPORT

Christopher J. Williamson
Assistant Secretary
for Mine Safety and Health
U.S. Department of Labor
201 12th Street South
Arlington, VA 22202

This report presents the results of the U.S. Department of Labor Office of Inspector General's (OIG) audit of the Mine Safety and Health Administration's (MSHA) mandatory inspections program. The Federal Mine Safety and Health Act of 1977 (Mine Act) requires the U.S. Secretary of Labor to inspect each underground mine in its entirety at least four times a year and each surface mine in its entirety at least two times a year. MSHA conducts these inspections on behalf of the Acting Secretary to prevent death, illness, and injury, and to promote safe and healthy work environments for miners. At the start of our audit, MSHA was responsible for monitoring worker safety at approximately 89,000 mines, around 12,000 of which required a mandatory inspection according to their operating status (referred to as "mine status" by MSHA and in this report). Most of the mines not requiring a mandatory inspection in MSHA's system were abandoned mines.

Prior OIG audit work identified concerns regarding the impact of MSHA's operational guidance, policies, and procedures on its mandatory inspections program. In March 2020, the onset of the COVID-19 pandemic introduced new risks to the program, including the limited availability of mine inspectors and restrictions on travel to mines, further challenging MSHA's ability to inspect mines. Together, these risks could limit MSHA's ability to identify hazards and pursue corrective actions to prevent possible deaths, illnesses, and injuries of miners. Given these concerns, we performed an audit to determine the following:

Did MSHA complete mandatory safety and health mine inspections before and during the COVID-19 pandemic?

To answer our objective, we interviewed MSHA personnel at its headquarters and in six districts, reviewed MSHA policies and procedures for the mandatory inspections program, and evaluated MSHA’s completion rate calculations for the program. In addition, we analyzed MSHA mine status criteria, data for 78,598 mandatory inspections ending in Fiscal Year (FY) 2018 through FY 2021 (the audit period), and other relevant inspection data.

While the Mine Act requires at least four underground mine inspections and two surface mine inspections a year, the Mine Act does not discuss reductions of, or exemptions from, required inspections based on the mine’s status. To identify mines that would be exempt from the required inspections or require a lower number of inspections, MSHA developed seven mine statuses. Table 1 shows the inspection requirement found in MSHA’s Program Policy Manual (PPM) for the seven statuses.

Table 1: Required Inspections by Mine Status

Mine Status	Underground Mine Inspections Required (per year)	Surface/Facility Mine Inspections Required (per year)
New Mine ¹	0	0
Active	4	2
Non-Producing	4	2
Intermittent	0	1
Temporarily Idle	0	0
Abandoned	0	0
Abandoned-Sealed	0	0

Source: MSHA’s PPM Volume I

¹ “New Mine” status is for mines that have not reported any employment hours yet to MSHA, which means they have not started operating and thus require no inspections. MSHA assigns this status to a mine at the time when the mine is assigned a mine identification number. This status typically does not change unless the mine operator reports employment hours to MSHA or MSHA otherwise determines the status to be incorrect during an inspection. As such, a mine can remain in new mine status for years.

RESULTS

Given the dangers associated with working in mines, the Mine Act requires each underground mine to be inspected in its entirety at least four times a year and each surface mine in its entirety at least two times a year. However, we found that MSHA did not complete an estimated 1,589 mandatory safety and health mine inspections before and during the COVID-19 pandemic. A majority of these occurred because MSHA eliminated mandatory mine inspection requirements by instead counting inspectors' visits to mines that were not operating² at the time of the visit (called an E28 idle mine visit and herein referred to as an idle mine visit).³

In addition, we found weaknesses in MSHA's ability to accurately determine a mine's status. The weaknesses related to: (1) when or how often to conduct a mine status verification, (2) what aspects to check, and (3) what tools to use. These issues affected MSHA's ability to determine a mine's status, identify required inspections, and document completed inspections.

Finally, we found other issues affecting MSHA's ability to accurately calculate and report completed mandatory inspections to Congress and the public. The range of issues identified included inaccurate or incomplete inspection data, ineffective communication, and missing policies.

The issues discussed in this report generally occurred because MSHA had not effectively improved the design or execution of its internal control system after a September 2011 OIG audit report⁴ found similar issues with the mandatory inspections program. The 2011 report identified MSHA:

- did not have clearly defined and objective mine status criteria,
- did not identify required inspections,

² This can occur because MSHA is not allowed to provide advance notice to the operator of an inspection and may visit a mine that operates intermittently (e.g., work specific months of year or days of week) on a day the mine is not in operation. Another example is if the mine is portable and relocated (but MSHA does not have the new location in its records), so the inspector attempts to visit the mine at the old location rather than the current location.

³ Per MSHA guidance, an E28 "idle mine visit" is "a mine visit specifically for the purpose of conducting an enforcement activity, but the activity could not be accomplished because the mine was not operating."

⁴ MSHA Must More Consistently Determine the Number of Required Inspections and More Transparently Report Inspection Results for Metal and Nonmetal Mines, Report No. 05-11-004-06-001 (September 29, 2011), <https://www.oig.dol.gov/public/reports/oa/2011/05-11-004-06-001.pdf>

- did not conduct mandatory inspections for certain mines over the course of multiple consecutive years, and
- overstated its completion rate for mandatory inspections by counting inspections as completed prior to their certification.

However, MSHA has not been successful in effectively correcting the issues over time. Our current audit found many of the issues identified in 2011 still existed, with new issues emerging because MSHA had not effectively improved the design or execution of its internal control system for the mandatory inspections program.

As a result, these issues affected MSHA's ability to accurately determine a mine's status and provide quality system data proving that it met the Mine Act's requirements. These issues also increased the risk of MSHA incorrectly calculating inspections required and not completing mandatory inspections. Uncompleted inspections are missed opportunities to promote safe and healthy working environments for miners by identifying hazards that can potentially cause death, illness, and injury to miners, and requiring mine operators to correct them.

In addition, the issues increased the likelihood of MSHA incorrectly reporting its completion rate to Congress and the public. For example, MSHA incorrectly reported to Congress and the public how many mandatory inspections it completed during FY 2019, FY 2020, and FY 2021. Also, MSHA was not transparent about the number of times it eliminated mandatory inspections by instead counting an inspector's visit to a mine that was not operating (idle mine visit). As such, Congress was unaware of the increased risk to miners given the lower number of inspections MSHA had performed.

**MSHA DID NOT COMPLETE AN ESTIMATED
1,589 MANDATORY MINE INSPECTIONS
ALTHOUGH IT REPORTED A NEARLY 100
PERCENT COMPLETION RATE**

MSHA reported a 100 percent completion rate for mandatory inspections performed in fiscal years 2019 and 2020, and a 99.71 percent completion rate for FY 2021 (with 1 missed inspection reported). However, MSHA was unable to provide supporting documentation that substantiated the completion of these inspections, and our analysis identified different results. In total, we found that MSHA did not complete an estimated 1,589 mandatory mine inspections, largely the result of eliminating inspection requirements due to idle mine visits and errors in accounting for the type of activities performed.

The data MSHA provided to support its high inspection completion rates was not sufficient to support MSHA's completion rate percentages or its processes. Specifically, the data included uncertified inspections despite MSHA providing us guidance that prohibited the use of this data. Further, the completion rates supported by the data differed from those reported to Congress and no data indicated when the elimination of a mandatory mine inspection was due to the use of idle mine visits or denial of entry.

As a result, we analyzed the various inputs that can affect MSHA's calculation of its completion rates, such as:

- the quality of the mine status criteria and tools supporting it, which MSHA districts used to determine a mine's status and the number of required inspections;
- the quality of key inspection dates (start, end, and certification) and their activity codes;
- the timeliness of supervisory certifications of mandatory inspections; and
- policies or practices potentially impacting MSHA's ability to effectively determine a mine's status or calculate its completion rate.

Due to the complexity of MSHA's mine status determination process and the magnitude of challenges that we found with MSHA's data, policies, and processes, we could not definitively calculate the full extent of mandatory inspections MSHA did not complete for the period of our audit. However, we were able to identify an estimated 1,589 mandatory inspections that were not completed using two alternative testing methods:

- **Method 1: Calculation Process Analysis**—MSHA's mandatory inspections calculation process failed to identify all mandatory inspections that were not completed, including inspection requirements it eliminated from idle mine visits (which are not completed inspections). We identified that MSHA did not complete 991 mandatory inspections; and
- **Method 2: Activity Code Analysis**—Inspectors did not correct the activity code⁵ in the system when they were unsuccessful in conducting a mandatory inspection. This led to MSHA overstating its completion rate for mandatory inspections and miscalculating the number of inspections eliminated due to non-inspection activities (e.g., idle mine visits). We estimate MSHA did not complete an additional 598 inspections based on inaccurate activity codes.

⁵ MSHA tracks different activity codes in its system to differentiate between regular inspections, spot inspections, accident investigations, compliance assistance visits, mine emergency operations, and so forth.

These issues occurred because MSHA had not effectively designed or executed its internal control system for the mandatory inspections program. For example, MSHA was not conducting a sufficient periodic review of the policies and procedures it developed for its mandatory inspections program to ensure adequacy and adherence.

As a result, MSHA missed opportunities to promote safe and healthy working environments for miners by identifying hazards that can potentially cause death, illness, and injury to miners, and requiring mine operators to correct them. In addition, the issues led to MSHA incorrectly reporting its completion rate to Congress and the public, thereby making them unaware of the increased risk to miners given the lower number of inspections performed.

METHOD 1: CALCULATION PROCESS FAILED TO IDENTIFY ALL MANDATORY INSPECTIONS NOT COMPLETED

We found deficiencies in the calculation process MSHA used to determine its completion rate for the mandatory inspection program. Specifically, MSHA's calculations did not identify all the mandatory inspections missed, nor did it properly account for the inspections eliminated each year as a result of other non-inspection activities (e.g., idle mine visits).

We tested MSHA's calculation process by analyzing⁶ 80,177 mines that did not change status during FY 2018 through FY 2021. To do this, we used an alternative approach⁷ of assuming MSHA's system data as listed was accurate. MSHA's system showed this segment of the mine universe stayed in the same mine status throughout FY 2018 through FY 2021; therefore, we did not have to try to manually recalculate the mine status for any of these mines.

Of the 80,177 mines reviewed, 7,802 required a total of around 12,867 mandatory inspections per year. Through this focused analysis of MSHA's data for the 7,802 mines, we calculated that MSHA missed⁸ a total of 9 mandatory inspections during this period, which is greater than the 1 missed

⁶ There were more than 9,000 mines that had a status change during this 4-fiscal-year period or afterwards that we were unable to test due to the complexity of MSHA's mine status determination process and the challenges found with MSHA's data, policies, and processes.

⁷ This alternative approach meant we did not attempt to adjust any system entries to account for issues we discussed in this report.

⁸ We use the term "missed" when no mandatory inspection was done and there was no idle mine visit available to eliminate the inspection requirement in MSHA reports.

inspection MSHA publicly reported for its entire universe of mines for FY 2019 through FY 2021.

During this testing, we also determined that MSHA eliminated 982 mandatory mine inspections based on idle mine visits performed. Despite the recommendation in the OIG’s September 2011 audit report, MSHA did not publicly report any mandatory inspections eliminated by idle mine visits in its Congressional Budget Justifications or Agency Management Plans (previously called Operating Plans) for FY 2018 through FY 2021. As reflected in Table 2, we found that MSHA’s miscalculations resulted in a total of 991 mandatory inspections that MSHA did not complete before and during the COVID-19 pandemic (FY 2018 through FY 2021).

Table 2: Number of Mandatory Inspections Not Completed Due to Miscalculations, FY 2018–FY 2021

Type of Mandatory Inspection Not Conducted	Number
Missed mandatory inspections (no mandatory inspection conducted and no idle mine visits conducted or allowed for mine)	9
No mandatory inspection conducted, but there was an idle mine visit conducted (and allowed) to eliminate the missed mandatory inspection	982
Total mandatory inspections not completed	991

Source: OIG analysis of MSHA system data

When we briefed our results to MSHA leadership and the U.S. Department of Labor’s Office of the Solicitor, they disagreed with how we categorized idle mine visits as not completed because idle mine visits are attempted inspections and MSHA viewed them as a replacement of an actual inspection. While we agree that idle mine visits are attempted inspections, we disagree that they are adequate replacements of an actual inspection. Our categorization of these attempted inspections as not completed is accurate because an entire mine inspection does not occur during an idle mine visit.

METHOD 2: MSHA OVERSTATED ITS COMPLETION RATE FOR MANDATORY INSPECTIONS AND MISCALCULATED THE NUMBER OF INSPECTIONS ELIMINATED DUE TO NON-INSPECTION ACTIVITIES

We found that MSHA inspectors did not correct inspection activity codes when they were unsuccessful in conducting mandatory inspections. This led to MSHA overstating its completion rate for mandatory inspections and understating the number of inspections eliminated due to non-inspection activities (e.g., idle mine visits).

Prior to the mine visit, inspectors populated the “activity code” entry (see “Event Type” entry in Figure 1) when first creating an inspection record in the system.

Figure 1: Activity Code Entry in MSHA’s System

The screenshot shows a web interface for 'Mine Activity Data' and 'Inspection Results'. The 'Event Type' dropdown menu is set to 'E01'. The 'Start Date' is 04/07/2021 and the 'End Date' is 04/09/2021.

Mine Activity Data		Inspection Results	
Data entry for Inspection/Investigation		Section II	
Start Date	04/07/2021	End Date	04/09/2021
		Event Type (Activity Code)	E01

Source: MSHA’s Inspection Application System User Guide

The code defines what type of inspection, investigation, or other activity is occurring at the mine (see Exhibit 1). MSHA’s calculations for the mandatory inspection program mostly relied on two activity codes to determine if MSHA met the Mine Act’s inspection requirements for a fiscal year:

- **Activity code E01 (Regular Safety and Health Inspection):** Activities done under this code are to be mandatory safety and health inspections of a mine, surface facility, or other entity having a mine identification number in its entirety; and
- **Activity code E28 (Mine Idle Activity):** Referred to as idle mine visits throughout this report, activities done under this code relate to “a mine visit specifically for the purpose of conducting an enforcement activity, but the activity could not be accomplished because the mine was not operating.” Although no inspection of the mine occurs under this activity

code, MSHA has used this code in its internal reports to eliminate the inspection requirement for certain types⁹ of mines.

Our analysis of MSHA's system data indicated many of the activity codes listed as E01 (complete inspections) in MSHA's system were most likely E28s (idle mine visits), but the inspector did not change the activity code in the system to reflect that MSHA was unable to complete the inspection.

During the course of our analysis, we expected to see inspector hours charged and inspection activities conducted for each E01 (complete mine inspection) inspection in MSHA's system. Inspections can include hours associated with travel to the mine and preparation for the inspection, as well as time charged to conduct the on-site inspection. However, our analysis of the E01 inspections with an inspection end date between FY 2018 and FY 2021 found 814 questionable E01 activity codes, consisting of:

- **188 E01s with no inspector hours charged to them.** Our review of the details in MSHA's system showed no inspection activity (e.g., inspection of active or idle sections, surface areas, company records; sampling for air, noise, or respirable dust) for **172** of them, thereby reaffirming most were likely not completed mandatory inspections;
- **206 additional E01s with no "on-site" time charged to them.** MSHA's system showed no inspection activity for **182** of them; and
- **420 additional E01s with total hours or "on-site" hours less than 1 hour** (0.25, 0.5, or 0.75 hours). Many of these also showed no inspection activity in MSHA's system.

To corroborate these questionable time charges, we calculated the historical average time to complete an E01 inspection at these mines. It often ranged between 8 to 40 hours to complete the inspection while others took more than 40 hours. This analysis supported our assessment that these were likely not completed mandatory inspections (E01s), but were more likely idle mine visits (E28s).

Not correcting the activity code impacted the accuracy of MSHA's system reports. The reports used the activity code in their business rules to determine how to count the inspection or idle mine visits towards meeting MSHA's mandatory inspection requirements. For example, the report had business rules

⁹ Underground MNM mine in "non-producing active" status; an underground coal mine in "intermittent" status; a portable surface mine in "active" or "non-producing active" status; or a surface mine in "intermittent" status

that eliminated a mandatory inspection requirement (E01) with the use of an idle mine visit (E28) if the mine fell under one of the following four situations:

- a metal nonmetal (MNM) underground or surface mine (including facility mine) in “non-producing active” status,
- a coal mine or MNM surface mine in “intermittent” status,
- a portable coal surface mine (including facility mine) in “non-producing active” status, or
- a portable coal or MNM surface mine (including facility mine) in “active” status.

To determine the effect of the inaccurate activity codes identified, we performed the following two analyses:

1. reviewed the mine status history and other events conducted at the mine for each of the 814 questionable E01s to determine if the questionable E01 would have been needed to meet inspection requirements. To perform this analysis, we assumed the mine status was accurate as listed; and
2. reviewed if MSHA’s report had a business rule applicable to the mine’s situation. To perform this analysis, we assumed there were no issues with the other events identified to satisfy the inspection requirement.

We first determined that 216 E01s were not needed to meet inspection requirements after determining there were no other events to satisfy the requirement and applying MSHA policy, such as no inspection being required if the mine changed to a status not requiring a mandatory inspection. As reflected in Table 3, this resulted in a total of 598 questionable E01s that were needed to meet inspection requirements.

Table 3: First Analysis of the Questionable E01s that Were Needed to Meet Inspection Requirements

OIG Analysis Description	Count
Questionable E01s Identified	814
Number of Questionable E01s Determined Not Needed	216
Number of Questionable E01s Determined Needed	598

Source: OIG analysis of MSHA system data

In the second analysis, for the 598 questionable E01s we determined as needed in table 3, we used the previously mentioned business rules in MSHA’s system

report to determine whether the report had a rule using an E28 idle mine visit to eliminate the E01 inspection based on each mine’s situation (e.g., underground or surface/facility mine, portable or not portable mine, and its mine status).

If the mine did not fall under one of the four situations specified in the business rules, then we concluded MSHA missed the E01 inspection requirement after changing the questionable E01 to an E28. If the mine was one of the situations listed in a business rule, then we concluded MSHA used an E28 to eliminate the inspection requirement after changing the questionable E01 to an E28. While both of these conclusions are mandatory inspections that were not completed and thus included in our overall count, this step of the analysis identified whether they were: (1) missed or (2) eliminated by an idle mine visit (see Table 4).

Table 4: Second Analysis of the Questionable E01s Needed Resulted in Missed E01 Inspections or Eliminated E01 Inspections

OIG Analysis Description	Count
Number of Questionable E01s Determined Needed (Not Completed)	598
Number of Missed E01s after Changing Activity Code of Questionable E01 to E28	293
Number of E28s Used to Eliminate E01 Inspection Requirements after Changing Activity Code of Questionable E01 to E28	305

Source: OIG analysis of MSHA system data

By adding the 991 inspections originally calculated as not completed to these additional 598 inspections identified as needed but not completed, we estimate MSHA did not complete at least 1,589 mandatory inspections at 1,154 mines¹⁰ based on these analyses alone.

¹⁰ Some mines had multiple not completed mandatory inspections.

WEAKNESSES IN MSHA’S ABILITY TO ACCURATELY AND TIMELY DETERMINE A MINE’S STATUS INCREASED THE RISK OF MSHA NOT COMPLETING MANDATORY INSPECTIONS

The first step in determining how many mandatory mine inspections to conduct during the fiscal year is to determine a mine’s status. However, we found several issues in MSHA’s processes affecting its successful determination of mine statuses.

Specifically, we identified the following seven areas of concern in MSHA’s mine status determination process that affected its ability to properly account for mine statuses:

1. insufficient mine status verifications being conducted,
2. inconsistent performance of visual verifications,
3. the absence of analytical checks in place,
4. inadequate or ineffective tools supporting mine status criteria,
5. absence of mine sealing verification,
6. inappropriate use of a deviation allowance, and
7. untimely reporting and ineffective use of Part 50 data.

These issues occurred because MSHA had not effectively designed or executed its internal control system for the mandatory inspections program. We found several breakdowns in MSHA’s internal control system, across all five components of internal controls in the U.S. Government Accountability Office’s (GAO) Standards for Internal Control in the Federal Government.¹¹ In Figure 2, we list key principles within the five components where we found breakdowns in MSHA’s internal control system.

¹¹ The five components are: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring. GAO, Standards for Internal Control in the Federal Government, GAO-14-704G (September 2014), <https://www.gao.gov/assets/gao-14-704g.pdf>

Figure 2: Key Principles¹² Where OIG Found Breakdowns in MSHA’s Internal Control System

				
Control Environment	Risk Assessment	Control Activities	Information and Communication	Monitoring
<ul style="list-style-type: none"> Oversee the entity’s internal control system. 	<ul style="list-style-type: none"> Identify, analyze, and respond to risks related to achieving the defined objectives. 	<ul style="list-style-type: none"> Design control activities and the entity’s information system’s controls to achieve objectives and respond to risks. Implement control activities through policies. 	<ul style="list-style-type: none"> Use quality information to achieve the entity’s objectives. Internally communicate quality information Externally communicate quality information. 	<ul style="list-style-type: none"> Monitor the internal control system and evaluate the results.

Source: OIG analysis of GAO Standards for Internal Control in the Federal Government principles

Additionally, MSHA had to overcome the following COVID-19 pandemic challenges:

- The temporary decrease in the total number of MSHA inspectors available because they had either self-identified as “high-risk” of contracting the virus or had contracted the virus and had to isolate and recover. Depending on the circumstances, the inspectors were unable to conduct mine inspections for various lengths of time, be it weeks or months. In October 2022, MSHA estimated it had lost 26,912 inspection days from the reduced availability of inspectors since March 2020;
- To overcome the loss of inspectors available, MSHA districts authorized more overtime than normal and employed inspectors from other field

¹² Key principles where we identified weaknesses in MSHA’s internal control system included: (1) overseeing the entity’s internal control system (control environment); (2) identifying, analyzing, and responding to risks related to achieving the defined objectives (risk assessment); (3) designing control activities and the entity’s information system’s controls to achieve objectives and risks and implanting control activities through policies (control activities); (4) using quality information to achieve the entity’s objectives and communicate internally and externally (information and communication); and (5) monitoring the internal control system and evaluating the results (monitoring).

offices or districts to complete inspections. This led to concerns about workforce burnout;

- The pandemic created logistical delays for inspectors, such as travel restrictions or hotel closures; and
- The pandemic forced MSHA to modify how it completed some inspection activities. Inspectors felt some changes negatively impacted their effectiveness, such as social distancing affecting how they interviewed miners on hazards. However, inspectors felt other changes were less impactful, such as conducting conferences outside or over the phone with the mine operator or miners.

These issues affected MSHA's ability to accurately determine a mine's status and provide quality system data proving it met the Mine Act's requirements. These issues also increased the risk of MSHA incorrectly calculating inspections required and not completing mandatory inspections. When MSHA did not complete mandatory inspections, it missed opportunities to promote safe and healthy working environments for miners by identifying hazards that can potentially cause death, illness, and injury to miners, and requiring mine operators to correct them.

REGULAR MINE STATUS VERIFICATIONS WERE NOT PERFORMED

Mine status changes can and do occur for various reasons, such as fluctuations in the demand for coal or metal, a mining company's declaration of bankruptcy, or a global crisis (e.g., the COVID-19 pandemic), which triggers temporary mine closures. Therefore, it is essential for MSHA to have a sufficient monitoring process set up to periodically verify mine statuses and ensure the proper number of inspections are being performed.

We found that MSHA's process did not include a defined schedule identifying when inspectors should conduct checks of a mine's status (e.g., quarterly). For example, MSHA's mine status criteria required districts to review employment and production data, or 30 U.S. Code of Federal Regulations (C.F.R.) Part 50 data,¹³ reported for the four most recent quarters to determine if a mine qualified for "intermittent" status. Since data changes each quarter, MSHA's calculations would likewise change each quarter, meaning a mine's status could change following any quarterly reporting.

¹³ We refer to the employment hours and coal production data reported by mine operators to MSHA under 30 C.F.R. Part 50 as "Part 50 data" or "Part 50 hours" in this report.

MSHA personnel should have evaluated each mine on a quarterly basis to identify the status for which it qualified and to modify it accordingly. Since Part 50 data is readily available to all MSHA personnel, this check could have been performed by inspectors, supervisors, or field office assistants. However, we found this check occurred sporadically, not quarterly, based on our testing results that showed mines eligible for status changes where MSHA did not make the change in the system.

INSPECTORS DID NOT CONSISTENTLY PERFORM VISUAL VERIFICATIONS REQUIRED BY MINE STATUS CRITERIA

We found that inspectors did not consistently perform visual verifications¹⁴ of mines in “temporarily idle” status to verify the mine status was accurate. Not performing these visits can lead to incorrect mine statuses in MSHA’s system, resulting in MSHA missing mandatory inspections as mines in “temporarily idle” status require no inspections.

In its September 2011 audit report, the OIG found MSHA’s criteria for determining a mine status was vague and required clarity to make proper mine status determinations. To address the OIG’s recommendation to design objective, national criteria for assigning a mine status, MSHA revised the mine status criteria in 2011 to mostly rely on the total number of hours reported by the mine under 30 C.F.R. Part 50 to determine the mine’s status.

However, in 2014 and again in 2019, MSHA revised its criteria to reflect language in its Mine Information Form (see Exhibit 2). The revision to the “temporarily idle” status definition moved MSHA away from its analysis of Part 50 hours to an analysis focused on the type of activity performed at the mine. The definition for “temporarily idle” status in the 2014 and 2019 versions of the mine status criteria stated the “only activity at these mines would be security checks, visual checks of surface areas to determine conditions, or activity due to another agency’s requirements.”

This change, however, created a challenge. Mine operators reported Part 50 hours by location (e.g., auger or dredge), not by the type of activity (see Exhibit 3 for an example of the form on which operators report Part 50 data). This created uncertainty as to whether hours reported in certain mine locations met the criteria based on activity since the only location where mining activities would normally not occur is in the office. It was unclear how an inspector could

¹⁴ A visual verification is when the inspector physically goes to the mine to verify something.

determine if hours reported in the auger or dredge locations for a mine in “temporarily idle” status, for example, were only for a security check. Thus, the criteria definition added visual verifications as a necessity for inspectors to verify the activities conducted were appropriate for the mine’s status or whether another status was warranted.

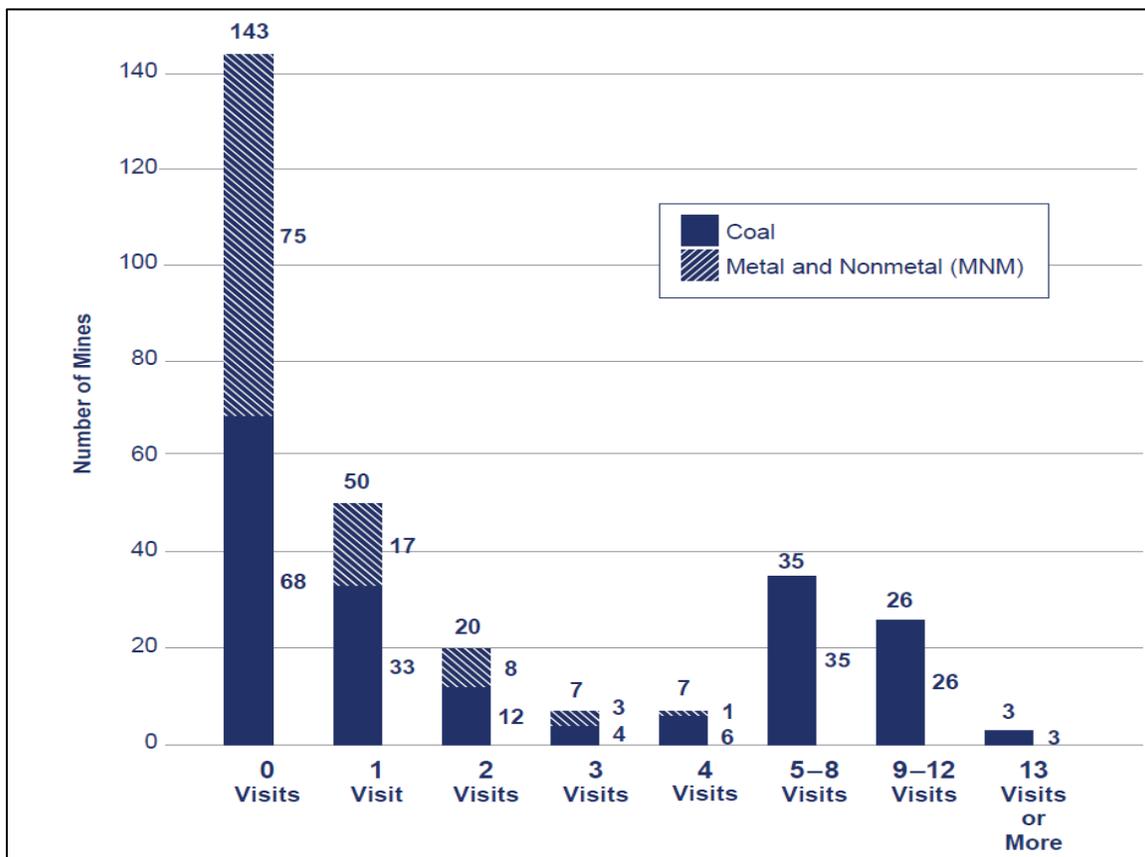
Our analysis of Part 50 data found mines in “temporarily idle” status reported hours in many different locations, some of which could include activities outside the criteria definition. In our analysis of 291 mines in “temporarily idle” status between FY 2018 and FY 2021, we found 79 mines (27 percent) reported hours during that timeframe, mostly in areas where mining activities occur (e.g., “strip, open pit, or quarry”). Of those 79 mines, only 5 reported hours solely in the office. This analysis confirmed inspectors needed to perform the visual verification to verify the mines were truly in a “temporarily idle” status, given that the hours reported indicated otherwise.

Our analysis of MSHA’s inspection data found inspectors were not visiting mines in “temporarily idle” status often enough to perform this visual verification. MSHA’s PPM, Volume V (Coal Mines), states, “while there is no specific time restriction applied to mines in temporarily idled status, it is necessary to verify what activity is taking place at the mine once each quarter.”

While the policy in PPM, Volume V pertains only to underground coal mines, because the mine status criteria applies to all mines, we also tested whether visual verification was occurring at MNM mines and the other two types (surface and facility) of coal mines. Our analysis found MSHA did not visit 143 of the 291 mines during FY 2018 through FY 2021 under any MSHA enforcement activity code (see Exhibit 1).

For the 148 mines visited, the data indicated inspectors were not visiting them quarterly. In fact, we found inspectors were not visiting each mine yearly. Figure 3 presents a breakdown by total number of MSHA visits for the 291 mines in “temporarily idle” status during this 4-year timeframe when a visual verification could have occurred.

Figure 3: MSHA Visits to 291 Mines in “Temporarily Idle” Status, FY 2018 through FY 2021



Source: MSHA’s Centralized Application System

According to MSHA officials, the agency does not have enough inspectors to conduct visual verifications at mines listed in a mine status not requiring a mandatory inspection (e.g., “temporarily idle”).

ANALYTICAL CHECKS WERE NOT IN PLACE TO HELP IDENTIFY MINES WITH INCORRECT STATUSES

We found that MSHA’s process did not include recurring analytical checks of Part 50 data reported by mines in the four statuses not requiring a mandatory inspection: “new mine,” “temporarily idle,” “abandoned,” and “abandoned-sealed.” Such checks help MSHA districts determine if a mine status change to one of the three mine statuses requiring inspections—“active,” “intermittent,” or “non-producing active”—is needed.

We analyzed Part 50 data for 72,375 mines in the four mine statuses not requiring mandatory inspections from FY 2018 through FY 2021. While we found no indicators of an incorrect status with the 8,677 mines in “abandoned-sealed” status, our analysis found indicators of mine operation at more than 100 mines in the other three statuses that do not require mandatory inspections. For example, the system indicators included work hours reported or MSHA visits to perform enforcement activities at the mine. These flags provide strong indications that MSHA should have changed the mine status for those more than 100 mines to one requiring a mandatory inspection for the timeframe the mine was in operation.

Specifically, our analysis identified the following discrepancies:

- **For the 291 mines in “temporarily idle” status**, we found 70 mines reported work hours at amounts likely more than allowed for this status and 2 mines reported coal production. Further, data showed that MSHA visited 45 of these mines and the system data for these mines included enforcement activity codes that we would expect to see at mines in a status requiring a mandatory inspection.¹⁵
- **For the 308 mines in “new mine” status**, we found 10 mines reported a total of more than 1.7 million hours, indicating the mines were no longer new and likely required a status change. In addition, MSHA’s data showed spot inspections occurred at 11 of these mines that had not reported hours. We found no correlation between the mines inspected and the 10 new mines that reported hours. As such, 21 mines were likely operating with an incorrect status of “new mine”. Further, MSHA did not identify mines operating without reporting hours.
- **For the 63,099 mines in “abandoned” status**, we found 57 mines reported more than 195,000 hours, indicating the mines were not actually abandoned. In addition, the data showed MSHA visits to 34 of these mines included enforcement activity codes, such as spot inspections, hazard complaint inspections, a fatal accident investigation, a non-fatal accident investigation, and a petition for modification investigation. Some of the mines reporting hours were, in fact, mines MSHA had visited, which further confirms that some of these mines were operating and were incorrectly identified as “abandoned.”

¹⁵ The codes identified that MSHA’s work at these mines included spot inspections, hazard complaint inspections, and impoundment spot inspections. A spot inspection is focused on inspecting a specific aspect, or spot, of a mine.

Although the number of identified exceptions may seem small compared to the total population of mines, the Mine Act requires inspections of each mine in its entirety per year and incorrect statuses can lead to MSHA not completing its mission to prevent death, injury, and illnesses for the miners at these mines.

Additionally, our review of MSHA’s public accident injuries dataset showed accidents occurred at mines with a status indicating they were not operational. Our analysis found that 92 accidents or injuries, including fatalities, were reported during the period of our audit (FY 2018 through FY 2021) at mines that had a mine status not requiring mandatory inspections (see Exhibit 4 for examples of such reported incidents). Accidents occurring at mines with a mine status not requiring mandatory inspections is a long-standing issue for MSHA. To better understand the history of this issue, we further analyzed MSHA’s public accident injuries dataset, dating back to FY 2000, and found that more than 1,200 accidents, including fatalities, were reported at mines with a mine status not requiring mandatory inspections.

Our analyses showed MSHA can improve its process by reviewing Part 50 data to assist in effectively monitoring the statuses of mines in the four statuses that do not require a mandatory inspection. Regulations¹⁶ require mine operators to notify MSHA before starting operations. In addition, our search of mine violations issued during our audit period for the 69 mines in “new mine,” “temporarily idle,” and “abandoned” statuses found MSHA was usually not issuing violations to those mines for failing to notify MSHA of commencing operations, as required, for these 69 mines, nor did it appropriately update the mine status to one requiring an inspection if the operators had notified them of commencing operations.

According to our analysis, out of the 69 instances identified, MSHA only issued 1 violation. This indicates that: (1) MSHA lacked timely awareness that the mines were reporting Part 50 data while in these mine statuses, (2) districts were not enforcing regulations requiring mines to notify MSHA of commencing operations, or (3) MSHA knew that the mines were operating and did not update the statuses as appropriate.

INADEQUATE OR INEFFECTIVE TOOLS SUPPORTING MSHA’S MINE STATUS CRITERIA

MSHA did not update its tools to align with its revisions to the mine status criteria, which led to the tools being inadequate or their implementation ineffective. Not

¹⁶ 30 C.F.R. § 56.1000 and § 57.1000 require MNM mines to report commencement to MSHA whereas 30 C.F.R. § 75.1721 and § 77.1712 require coal mines to notify MSHA when reopening an “abandoned” mine.

having the tools synchronized with the criteria can lead to incorrect mine status determinations and missed inspections.

We found two tools MSHA personnel used to verify compliance against the mine status criteria—the Mine Status Calculator and the Mine Status Review Report—that had issues.

Mine Status Calculator. The 2011 version of the mine status criteria mostly relied on the total number of hours reported by the mine under 30 C.F.R. Part 50 to determine the mine’s status. In response, MSHA personnel developed a calculator in Microsoft Excel that districts could use to determine a mine’s status. However, MSHA personnel did not update the calculator to address criteria revisions in 2014 and 2019, as the latter versions relied more on visual verifications rather than solely on the objective analysis of Part 50 data.

During our interviews at six MSHA district offices in 2022, MSHA personnel stated they were still using the unmodified calculator. By using the calculator based on outdated criteria rather than following the revised mine status criteria, MSHA personnel increased the chances of assigning incorrect mine statuses, which could then translate into fewer mine inspections being conducted.

Mine Status Review Report. MSHA created its Mine Status Review Report to address a recommendation in the September 2011 audit report and originally informed the OIG that its districts would generate and use the report on a quarterly basis. The report lists mines with a possible incorrect mine status by indicating the mine’s current status shown in MSHA’s system versus a suggested status based on business rules included in the report.

During our current audit, we reviewed the Mine Status Review Report and determined the following:

- MSHA did not update the report’s business rules to reflect revisions in the mine status criteria. Our review found it still included business rules related to criteria used in the 2011 version of mine status criteria that MSHA removed in the 2014 and 2019 versions;
- Most of MSHA’s districts were not using the report as we found only 3 of 15 districts used it; and
- When districts did use the report, they would later rely on the calculator to recalculate the mine status for mines identified in the report. As MSHA had not updated the calculator based on the revised criteria, MSHA personnel would not only make incorrect status determinations, but would also override the value the report might provide.

In addition, we saw similar issues with tools (MSHA system reports) used by districts to track completion of inspection requirements. MSHA created the Regular Inspection Activity Report to track inspections completed and not completed. However, the report required two inspections per year for underground coal mines in intermittent status, but MSHA's PPM did not include this requirement. This report fed into another system report (E01 Inspections Still Required), which districts used to identify mandatory inspections still needed to be completed.

MSHA'S MONITORING OF MINE STATUSES DID NOT INCLUDE VERIFYING MINES MET A FEDERAL REGULATION FOR TIMELY SEALING

MSHA's monitoring of mine statuses did not include checks of whether mines met a federal regulation regarding sealing requirements. Our audit identified two instances in which routine (or regular) checks did not occur to ensure operators timely sealed underground coal mines.

Federal law¹⁷ requires "the opening of any coal mine that is declared inactive by its operator or is permanently closed or abandoned for more than 90 days, shall be sealed by the operator." To implement this, MSHA published a regulation¹⁸ requiring that "[o]n or after March 30, 1970, the opening of any coal mine that is declared inactive by the operator, or is permanently closed, or abandoned for more than 90 days, shall be sealed by the operator in a manner prescribed by the Secretary." MSHA's PPM, Volume V, reiterates this requirement.

In the first identified instance, MSHA's data showed that underground coal mines in "abandoned" status were not being changed timely to "abandoned-sealed" status, an indication that the sealing of mines may not be occurring timely. We identified 6,070 underground coal mines (see Figure 4) that remained in "abandoned" status for 4 or more consecutive years (ranging from 4 to 51 years from the date of our system data in December 2021). Unsealed abandoned mines can present a public safety risk as people have been injured by entering abandoned mines. For instance, in September 2015 and August 2022, MSHA¹⁹ and the U.S. Department of Labor²⁰ issued "Stay Out, Stay Alive" notices to alert the public about the dangers of abandoned mines. The more recent notice stated

¹⁷ 30 United States Code § 877(k)

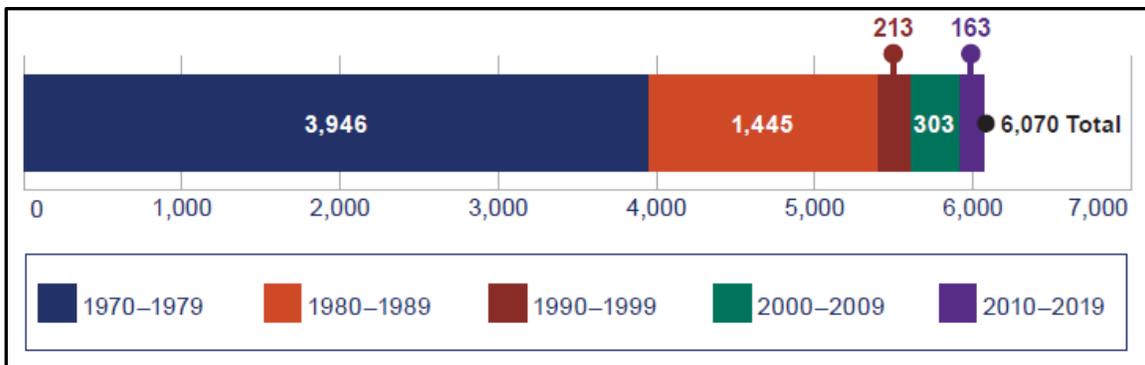
¹⁸ 30 C.F.R. § 75.1711

¹⁹ Available at: <https://www.msha.gov/news-media/special-initiatives/2015/09/24/stay-out-stay-alive>

²⁰ Available at: <https://blog.dol.gov/2022/08/23/stay-out-stay-alive-active-and-abandoned-mine-sites-are-dangerous-potentially-fatal>

“each year, dozens of people are injured or killed while exploring, swimming, or playing at a mine property.” Sealing abandoned mines is not only a federal requirement, but an action that could help the public to stay out and stay alive.

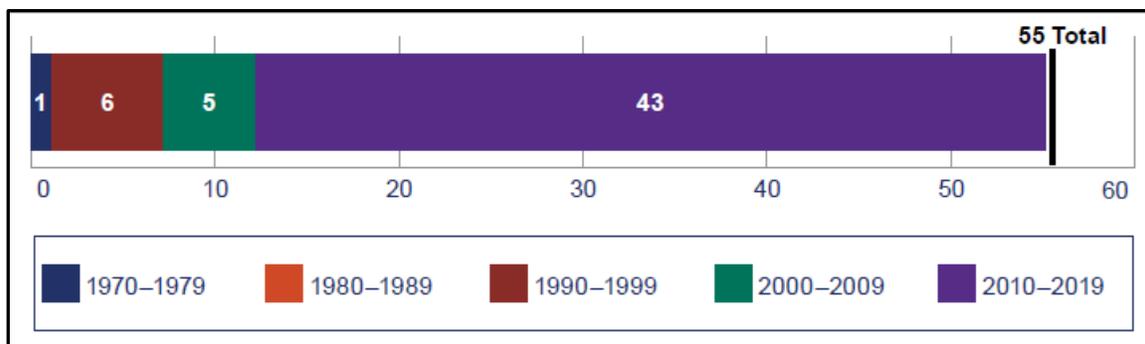
Figure 4: Timeline for when MSHA Changed 6,070 Underground Coal Mines to “Abandoned” Status, by Decade



Source: MSHA’s Centralized Application System

In the second identified instance, MSHA’s data showed mines in “temporarily idle” status where the length of time in that status indicated a need to change it to “abandoned” status. MSHA’s PPM, Volume V, states “[i]t is unlikely that a mine would remain in intermittent or temporarily idled status for more than 12 consecutive months.” We found 55 underground coal mines (see Figure 5) were in “temporarily idle” status for 4 or more consecutive years (ranging from 4 to 42 years from the date of our system data in December 2021). An incorrect mine status in MSHA’s system presents a public safety risk as these mines may actually have been abandoned and require sealing to meet federal requirements and prevent access to a potentially dangerous area.

Figure 5: Depiction of When 55 Underground Coal Mines Were Changed to “Temporarily Idle” Status by Decade



Source: MSHA's Centralized Application System

MSHA is responsible for enforcing the Mine Act, writing violations to operators not adhering to Title 30 C.F.R. regulations, and maintaining accurate records (e.g., mines or mine statuses data) in its system. The states can also have state regulations that address mine sealing requirements. As the U.S. Department of the Interior and the states run the abandoned mine land programs for reclamation²¹ of mines abandoned prior to the Surface Mining Control and Reclamation Act of 1977, their inspectors monitor operator compliance with the abandoned mine lands programs and state regulations.

Despite the U.S. Department of the Interior and the states' involvement, MSHA has neglected its responsibility to ensure these mines are being sealed timely or have accurate records in its system. In response to these concerns, MSHA officials expressed that some of these mines would not be responsive to MSHA due to the bankrupt status of their owners. Further, MSHA officials stated they do not seal mines. For bankrupt mines, MSHA may need to coordinate with the states to ensure actions are being taken to seal them.

Overall, MSHA needs to improve its verification of mine sealing activity and update the mine status record appropriately in its system. In addition, MSHA needs to issue violations for mines not in the abandoned mines land program that are beyond the 90-day sealing deadline cited in the regulation. At a minimum, MSHA is responsible for annotating in its system a remark stating why an underground coal mine in “abandoned” status will not be sealed. To ensure all unsealed mines are identified for future sealing, MSHA also may need to coordinate with the U.S. Department of Interior or the states to verify the mines are identified for future reclamation in the Abandoned Mine Lands program inventory.

²¹ Reclamation for abandoned mines is the act of restoring environments that have been degraded by the adverse effects of mining to a beneficial end use.

According to MSHA leadership, the agency does not have enough inspectors to verify the sealing of abandoned mine openings. Although MSHA personnel acknowledged the public safety risk present with unsealed mine openings at abandoned mines, they noted their mission is to ensure miner safety. Therefore, they focus their available resources on inspecting operating mines over minimizing the public safety risk by verifying the sealing of abandoned mine openings. Although we recognize resource challenges may exist within MSHA, the oversight of abandoned mines is a Mine Act requirement and the agency is responsible for enforcing the related federal regulation, which helps to protect the public from these hazards.

DISTRICTS INAPPROPRIATELY USED DEVIATION ALLOWANCE IN MINE STATUS CRITERIA

While MSHA’s mine status criteria includes a statement that allowed districts to deviate from the criteria, districts inappropriately used the deviation. The use of such deviations resulted in some mines being inspected less often than if districts followed the criteria.

For example, MSHA’s data showed districts leveraged the deviation to change the status of more than 6,000 mines from “new mine” to “intermittent” status, thus only requiring one inspection per year for surface mines, or two inspections per year for underground mines. If MSHA had followed the mine status criteria, this would not be possible as the criteria to qualify for “intermittent” status requires reportable hours from the four most recent quarters.

Since new mines have not begun work and typically do not have reportable hours, following the criteria means the status should have changed from “new mine” to “active” status, which is the default status to use if no other status applies. The “active” status requires two inspections per year for a surface mine or four inspections per year for an underground mine. This is notably more than the one inspection required by “intermittent” status for a surface mine or two inspections per year for an underground mine. This means mines would be inspected less often when personnel used the criteria deviation (e.g., “new mine” to “intermittent”) versus following the criteria (e.g., “new mine” to “active” and then possibly “intermittent”).

Using MSHA’s data, we analyzed 909 of the more than 6,000 mines. Our analysis of the first four quarters of Part 50 data reported by operators for the 909 mines found approximately 38 percent of the mines would not have qualified for “intermittent” status. By deviating from the criteria, MSHA conducted fewer mandatory inspections at many of these mines than were required. As a result,

MSHA reduced its opportunity to promote safe and healthy workplaces by identifying hazards that can potentially impact miners.

MSHA's data also reflected other types of questionable deviations from the mine status criteria. For example, the data showed MSHA changed the status of more than 427 mines as follows:

- **More than 400 mines from “new mine” to “temporarily idle” status.** We question how a mine could be temporarily idle if it had never begun work, as the definition for “new mine” status means not having reportable hours; and
- **27 mines from “new mine” to “abandoned-sealed” status.** We question the likelihood of a mine operator sealing a mine opening if it had never begun work at the site.

Based on our analysis, MSHA likely missed changing the mines' status (e.g., to “active”) at some point during the life of these mines, which would mean MSHA potentially missed performing mandatory inspections at the mines.

If MSHA plans to allow deviations from the mine status criteria, it needs to limit them to defined exceptional situations. For example, MSHA could allow deviations resulting in districts performing more inspections, such as keeping a mine in “active” status rather than changing the status to “intermittent”. However, MSHA should not allow deviations that require fewer inspections, such as changing a mine from “new mine” status directly to “intermittent” status until the mine reports Part 50 data showing it operates intermittently.

MSHA'S PART 50 REPORTING PROCESS REQUIRES IMPROVEMENT TO EFFECTIVELY DETERMINE MINE STATUSES

MSHA's mine status criteria requires reliance on the use of Part 50 data to identify a mine's status. Therefore, timely reporting by mine operators and availability of the data to MSHA's district personnel is important to enable MSHA districts to conduct quarterly checks of mine statuses and make timely status changes impacting the required number of mandatory inspections.

MSHA's Office of Injury and Employment Information estimated approximately 20 percent of operators do not report timely each quarter. This is a large percentage of operators that require MSHA intervention each quarter and cause delays in the distribution of the Part 50 data to the districts.

According to the Office of Injury and Employment Information, a system report (non-respondent list) that identified the late reporting operators was available to district personnel so they could reach out to operators to obtain their Part 50 data. While this report appeared to be a critical tool in collecting timely Part 50 data from mine operators and identifying operators deserving a violation for late reporting, the report may not have been used as effectively as possible as district personnel were not always aware of it.

MSHA's PPM states an underground mine must be in 1 of the 3 statuses requiring inspection for at least 45 days of a quarter (or 90 days of a half year for a surface mine) to require inspection. This means the timing of a status change could affect whether MSHA is required to complete a mandatory inspection for a mine or not. As a result, MSHA needs its Part 50 data collection and distribution process to be working efficiently in order to ensure timely mine status changes are made and inspections occur as required.

According to MSHA officials, inspectors verify Part 50 data submissions during mandatory inspections and have issued violations for operators not submitting Part 50 data to MSHA within 15 days after the end of the quarter. We agree that the inspector checks during mandatory inspections help to verify submissions are complete and accurate. However, we are concerned with the timeliness gap present in that process, which impacts MSHA's ability to conduct mine status verifications effectively.

The timeliness gap occurs due to the frequency of MSHA's mandatory inspections, as they occur after the operator submissions are due to MSHA. For underground mines, the gap is not as large because MSHA often inspects these mines on a quarterly basis. However, surface (and facility) mines make up around 96 percent of the operating mines MSHA oversees and these mines are typically inspected once or twice a year. In fact, we later discuss instances in which MSHA did not inspect some of these mines for 2 to 4 consecutive years. MSHA districts would need complete Part 50 data by a certain date (e.g., 30 days after a quarter ends) to conduct effective mine status verifications. Relying solely on an inspector's verification during a mandatory inspection will not ensure districts have complete data available in a timely manner to conduct effective mine status verifications.

OTHER ISSUES AFFECTED MSHA’S ABILITY TO ACCURATELY CALCULATE AND REPORT COMPLETED MANDATORY INSPECTIONS

To ensure MSHA meets the Mine Act’s inspection requirements and accurately reports to Congress and the public, MSHA needs a sufficient process to accurately calculate its annual mandatory inspections completion rate. However, we found a range of issues with MSHA’s policies, processes, and system data that affected MSHA’s ability to accurately calculate and report completed mandatory inspections, some of which have been discussed already in this report. These issues included the following:

- inaccurate or incomplete inspection data,
- ineffective communication and policy regarding dates used in completion rate calculations,
- missing policies for two key aspects of its mandatory inspections program, and
- weaknesses in MSHA’s internal control system.

Overall, our analysis showed MSHA’s calculation and reporting process needs improvement to be able to accurately and transparently report its annual inspection completion rates to Congress and the public. These deficiencies generally occurred because MSHA had not effectively designed or monitored its internal control system to: (1) ensure it had sufficient policies and procedures in place to meet the Mine Act’s inspection requirements or (2) verify that its personnel complied with its policies and procedures. This included insufficient oversight by supervisors and missing system controls.

As a result, these issues increased the risk of MSHA incorrectly calculating the number of inspections required and documenting inspections completed. They also increased the likelihood of MSHA incorrectly reporting its completion rate to Congress and the public, thereby making them unaware of the increased risk to miners given the lower number of inspections performed. For example, MSHA incorrectly reported a 100 percent completion rate to Congress and the public for FY 2019 and FY 2020, and it incorrectly reported 1 missed inspection (99.71 percent) for FY 2021. In addition, MSHA was not transparent about how many mandatory inspections it eliminated by counting idle mine visits (E28).

INACCURATE OR INCOMPLETE INSPECTION DATA

We identified reliability concerns with three inspection data elements in MSHA's system that factor into MSHA's completion rate calculations: (1) the inspection start date, (2) the inspection end date, and (3) the primary mine type.

INSPECTION START AND END DATES

Recording accurate inspection start and end dates is critical as those dates determine in which fiscal year the inspection is to be applied. Inspectors enter the inspection start and end dates (shown previously in Figure 1) in the system. Historically, when computing its completion rate, MSHA has relied on the inspection end date to determine which fiscal year to apply.

Our data accuracy testing found discrepancies with the inspection start date and inspection end date fields. By comparing the activity dates for when MSHA personnel charged hours to inspections against the inspection start and end dates, our analysis of the 78,598 mandatory inspections ending in FY 2018 through FY 2021 identified the following:

- **37,525 (47.7 percent) had end date discrepancies.** This consisted of more than 58,000 instances of hours charged by MSHA personnel after the inspection end dates listed in MSHA's system.
- **4,012 (5.1 percent) had start date discrepancies.** This consisted of more than 4,200 instances of hours charged by MSHA personnel prior to the inspection start dates listed in MSHA's system.

PRIMARY MINE TYPE

MSHA uses the "primary mine type" entry (Figure 6), together with the mine status (e.g., "active"), to determine the inspection requirements for a mine. If this field is blank, MSHA cannot determine the quantity of inspections required for a mine.

Figure 6: Primary Mine Type Entry in MSHA’s System

Mine Information Form		
Mine Location		
Change/New:		
1. MSHA Mine ID Number:	2. Operating Company Name:	3. Mine or Mill Name:
3a. Mine Emergency Phone Number:	4. Type of Operation: Coal Mine or Coal Handling Facility	5. Portable Operation:
		6. Primary Mine Type: Underground

Source: MSHA’s Centralized Application System Forms Inventory, Search, and Queries User Guide

Our test of data completeness for this field found it was blank for 300 mines. We found 48 of them were listed as coal mines in “abandoned” status, so having a blank primary mine type entry made it unclear whether these were underground coal mines that still required sealing. Although the majority of these mines were listed in a “new mine” status, which required no inspections, this is information MSHA should have been able to gather when the operators requested their mine identification number. Given our testing found mines in “new mine” status were in an incorrect mine status, MSHA should ensure its mines have the primary mine type field populated regardless of the mine status.

In addition, we found mines could change their “primary mine type.” However, MSHA had no policy on how to apply the change when calculating a mine’s inspection requirements. Such policy development is critical given underground mines generally require more inspections than surface or facility mines.

The ability of MSHA personnel to change the “primary mine type” entry from underground to either surface or facility creates another challenge for MSHA in its monitoring of timely sealing of underground mines.

INEFFECTIVE COMMUNICATION AND POLICY REGARDING DATES USED IN COMPLETION RATE COMPUTATIONS

We found MSHA had ineffectively communicated throughout its headquarters and districts regarding a policy requiring the use of the certification date in calculating its annual completion rate for the mandatory inspections program. In addition, there was ineffective policy on how to perform those calculations when other event types (e.g., spot inspections) were used to complete an “entire mine” inspection. This led to confusion within the workforce and inconsistent application of inspection dates in the annual calculations. As a result, personnel were

potentially unaware that they missed an inspection needed for MSHA to meet the Mine Act’s inspection requirements.

INEFFECTIVE COMMUNICATION REGARDING USE OF CERTIFICATION DATE

MSHA tracks three key dates for a mandatory inspection:

1. Start date: The date the inspection begins;
2. End date: The date the inspection ends; and
3. Certification date: The date the MSHA supervisor certifies an inspection was completed for an “entire mine,” in accordance with MSHA’s policy and procedures. This date is important because it occurs after the supervisor has reviewed all of the inspection files. The date could occur on the same day as the inspection’s end date, but typically occurs after.

Inspectors enter the inspection start and end dates (shown previously in Figure 1) in the system whereas supervisors enter the certification date (see Figure 7) in the system after reviewing the inspection file.

Figure 7: Certification Date Entry in MSHA’s System



Source: MSHA’s Centralized Application System Events User Guide

MSHA issued a policy memorandum²² on December 14, 2012, requiring use of the certification date to calculate the inspection completion rate, but we found that confusion existed within MSHA about the policy. The memorandum stated:

Starting in FY13, supervisor certification of E01 inspections must be entered into [MSHA Standardized Information System] event screen for the inspection to be considered complete...Field Office Supervisors are to ensure that electronic certification of all E01 inspection is completed no later than 10 calendar days after the end of the quarter in which the inspection was conducted

²² Coal Mine Safety and Health Memorandum #HQ-12-038-A with subject “Electronic Certification of E01s in MSHA Standardized Information System (MSIS)” (dated December 14, 2012)

(January 10, April 10, July 10, October 10)...Final confirmation of 100 percent E01 completion cannot be provided until the electronic certification of E01s is completed.

Although MSHA issued the memorandum only to its districts overseeing coal mines in 2012, MSHA headquarters confirmed in 2022 that it expected all its districts, including former districts overseeing MNM mines, to comply with the memorandum. In addition, this aligned with MSHA's response to the OIG for a recommendation in the September 2011 audit report concerning supervisors reviewing reports before including them in the completion rate calculations.

Our analysis of certification dates, as of December 2021, found various issues with MSHA personnel following this policy:

- There were 108 mandatory inspections ending in FY 2018 through FY 2021 that supervisors had not yet certified, as of December 2021. The list of uncertified mandatory inspections included inspections ending as far back as November and December 2017;
- We found 1,637 mandatory inspections where the supervisor had not certified within 10 days of the quarter end as stated in the memorandum; and
- By comparing certification dates versus end dates to determine the number of days between them, we found a wide range of variance with untimely certifications for 162 inspections occurring anywhere between 121 and 1,122 days after the end date.

We found the MSHA analyst who computes MSHA's completion rate was aware of the memorandum, but was counting the untimely and uncertified inspections as completed inspections when calculating MSHA's annual completion rate. We found confusion among district personnel as well.

When we briefed these results to MSHA in 2023, an MSHA executive told the staff this memorandum should no longer be used because the executive removed it years ago. Subsequent to our brief, another MSHA executive notified the districts by email in April 2023 that the memorandum was expired and should not be followed. This internal MSHA confusion is a breakdown in the information and communication component of MSHA's internal control system, similar to the confusion previously discussed with the mine status calculator. In addition, it has led to: (1) MSHA no longer having a metric to define a timely certification of a mandatory inspection and (2) a lack of clarity on how to use the certification date when calculating MSHA's annual completion rate for mandatory inspections.

*INEFFECTIVE POLICY REGARDING INSPECTION
DATES WHEN USING A SPOT INSPECTION TO
COMPLETE THE MANDATORY INSPECTION*

Since MSHA has historically used the end date to determine in which fiscal year an E01 (mandatory inspection) applies, it is critical the end date reflects the end of inspection work. However, MSHA’s policy creates a vulnerability where this would not occur.

If a supervisor finds the E01 was incomplete (i.e., not an “entire mine” inspection) after being closed by the inspector, then MSHA’s supervisor handbook requires supervisors to have inspectors open an E16 (spot inspection)²³ to inspect the area(s) missed rather than reopen the closed E01. However, there was no policy or procedure on how to account for this situation in terms of the mandatory inspection’s end date or MSHA’s completion rate calculations. This can lead to the inspection’s end date not accurately reflecting the end of the inspection work, thereby causing MSHA to inaccurately report the completion rate to Congress and the public.

For example, our search of the remarks column in the inspection data found a mandatory inspection that required additional work to be performed in the form of a spot inspection. The remarks stated that “[t]he lead [authorized representative] closed this E01 inspection prior to the bleeder portion of the mine being inspected in its entirety. The remainder of the bleeder was checked on E16 [spot inspection]...which was opened at the direction of Supervisory to complete the inspection.” The mandatory inspection (E01) had an end date of March 24 whereas the spot inspection (E16) had an end date of March 31. To ensure the mandatory inspection is accounted for properly in the completion rate calculations, the districts should have adjusted the end date for the mandatory inspection accordingly.

Principle 13 in GAO’s Standards for Internal Control in the Federal Government states “management should use quality information to achieve the entity’s objectives,” which includes relevant data from reliable sources. By not ensuring the start and end dates of the mandatory inspections accurately capture the work performed to meet the Mine’s Act inspection requirements (e.g., entire mine), MSHA’s inspection data is not following GAO standards and MSHA risks inaccurately calculating its completion rate.

²³ A spot inspection is focused on inspecting a specific aspect, or spot, of a mine.

MISSING POLICIES FOR TWO KEY PROGRAM ASPECTS

We found that MSHA was missing policies related to two key aspects of its mandatory inspections program affecting its annual calculation of the inspection completion rate.

LACK OF POLICY REQUIRING INSPECTIONS TO START AND END IN SAME FISCAL YEAR

MSHA had no policy requiring inspections to end in the same fiscal year they are started, which can lead to inspection work not being counted in the appropriate fiscal year. Regarding the Mine Act's inspection requirements, the PPM states MSHA's policy is "based on an average of one inspection every quarter for underground mines and one inspection every six months for surface mines." We interpret the intent of the Mine Act to mean an inspection would start and end in the same year, which also aligns with our interpretation of MSHA's PPM. Although the PPM does not explicitly state the requirement for inspections to start and end in the same fiscal year, this would need to be the case to meet the congressional intent of the Mine Act to perform a minimum of two or four inspections per year.

Our analysis found 255 mandatory inspections had a start date in one fiscal year and an end date in another fiscal year. In some extreme instances, we found:

- two inspections started in FY 2016 and ended in FY 2018,
- an inspection started in FY 2018 and ended in FY 2020, and
- an inspection started in FY 2009 and ended nearly 9 years later in FY 2018.

When inspections crossed fiscal years, it raised questions regarding when inspectors performed their inspections and in which fiscal years the inspections should count. For the 255 inspections crossing fiscal years, we found 48 inspections (19 percent) did not have any hours charged by the inspector in the end date's fiscal year. For example, if the inspection started in FY 2020 but ended in FY 2021, we did not identify any hours charged to the inspection in FY 2021.

Since MSHA has historically used the end date to determine which fiscal year to apply an inspection to when calculating the completion rate, this raised concerns as to whether MSHA has counted these inspections in the correct fiscal year during FY 2018 through FY 2021. This created a challenge for MSHA to support

that it met the inspection requirements of the Mine Act. Table 5 show examples of three mines that were in “intermittent” status during FY 2018 through FY 2021, thereby requiring one inspection per year, in which the mine’s inspection history show one of the inspections ended on October 1 (annotated by an asterisk in the last column). In each of these examples, the questionable inspection counted towards a fiscal year requirement where the inspector charged no time to the inspection in the fiscal year for which MSHA applied the inspection based on its end date.

Table 5: E01 Inspection History for Three Mines with an Inspection Crossing a Fiscal Year

Mine Example	E01 Inspection Start and End Dates	Fiscal Year MSHA Applied the Inspection based on End Date
Example 1a	10/2/2017–10/5/2017	FY18
Example 1b	9/25/2018–10/1/2018	FY19*
Example 2a	2/25/2020–2/27/2020	FY20
Example 2b	9/21/2020–10/1/2020	FY21*
Example 3a	12/2/2019–12/2/2019	FY20
Example 3b	9/23/2020–10/1/2020	FY21*

Source: “Events” data in MSHA system

*Inspector did not charge time to inspection during the fiscal year in which MSHA applied the inspection.

In each of these examples, the districts had already completed an E01 inspection to meet the inspection requirements, so it would not have benefitted MSHA to have another E01 inspection completed during the same timeframe. By not having a policy requiring the inspections start and end in the same fiscal year, MSHA has created a weakness in its internal control system where MSHA districts can pre-load inspections by performing the work in one fiscal year and then count the inspection in the next fiscal year by ensuring the end date appears in the next fiscal year where it wants the inspection to count.

To adhere to the intent of the Mine Act, an inspection should not count towards a fiscal year in which MSHA performed no inspection work on the mine in question.

LACK OF POLICY ON USE OF IDLE MINE VISITS TO MEET MINE ACT'S INSPECTION REQUIREMENTS

MSHA eliminated mandatory inspections due to idle mine visits (E28), but it had no policy²⁴ allowing these eliminations or discussing how to use them when calculating the annual inspection completion rate. This led to MSHA not inspecting mines in multiple consecutive years and potentially eliminating inspection requirements inappropriately.

Principle 12 of GAO's Standards for Internal Control in the Federal Government states that "management should implement control activities through policies." An attribute for this principle states that management achieves this through a periodic review of control activities by reviewing policies, procedures, and related control activities for continued relevance and effectiveness in achieving the entity's objectives or addressing related risks.

The Mine Act does not address or refer to attempted inspections or idle mine visits in terms of meeting its inspection requirements, but MSHA can encounter these two types of situations when visiting a mine to conduct a mandatory inspection. Therefore, MSHA created two activity codes in its system to capture those situations:

- **Activity code E27 (Attempted Inspection - Denial of Entry):** Activities done under this code include "a mine visit specifically for the purpose of conducting an enforcement activity, but the activity could not be accomplished because of direct or indirect denial of entry"; and
- **Activity code E28 (Mine Idle Activity):** Activities done under this code involve "a mine visit specifically for the purpose of conducting an enforcement activity, but the activity could not be accomplished because the mine was not operating."

However, MSHA did not create a policy addressing both activity codes. MSHA developed a policy in its PPM, Volume I, for E27 stating, "if a mine has received an Attempted Inspection (Denial of Entry) event during the inspection period, no inspection is required for that period." Based on our research, we did not find a

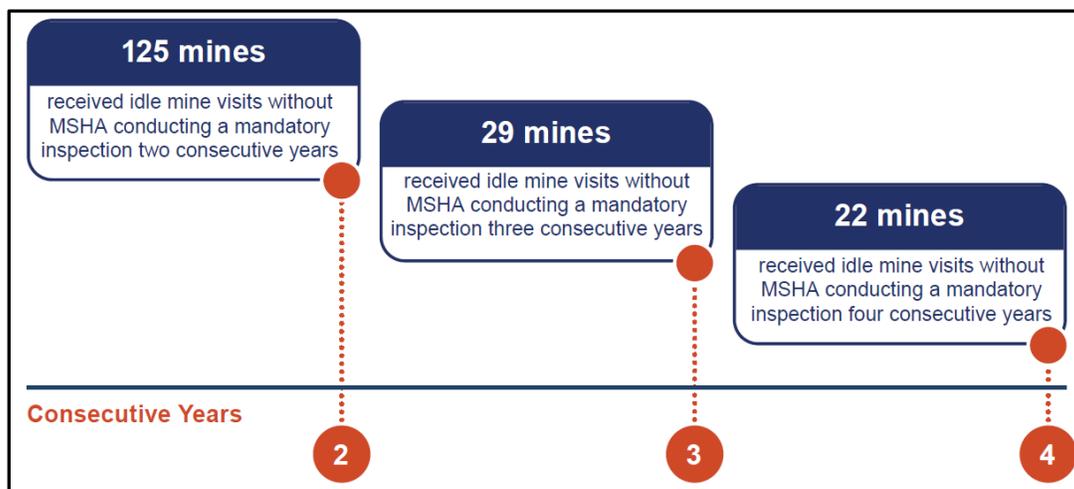
²⁴ There are regulations (e.g., 30 C.F.R. 56/57.1000) requiring operators to notify MSHA of commencement and closure. Our analysis of these regulations and MSHA's data found those notifications helped more for mines doing a temporary closure ("temporarily idle" status) or permanent closure ("abandoned" status) more than mines operating intermittently ("intermittent" status). Not having a clear definition for "intermittent" status and not identifying the planned production schedules for mines in "intermittent" status at the beginning of each year has hindered MSHA's ability to conduct the necessary mandatory inspections.

policy addressing the E28 code in MSHA’s PPM. Since MSHA eliminates mandatory inspection requirements using this E28 code without policy supporting this action, MSHA has potentially eliminated inspection requirements inappropriately.

MSHA’s use of the E28 code to eliminate inspection requirements affects the calculation of its annual completion rate. MSHA uses internal reports to help districts track the completion of mandatory inspections. One of the report’s business rules removes the inspection requirement for a mine if, during the applicable timeframe, MSHA personnel entered the E28 code because they were unable to conduct an inspection. This could be due to a mine not being open or a portable mine relocating from the location the inspector had visited.

MSHA has frequently used these idle mine visits to eliminate inspection requirements (shown previously in Table 2). Unfortunately, we found MSHA’s frequent use of the E28 code to eliminate inspection requirements after only one failed attempt to conduct an inspection has resulted in MSHA not conducting mandatory inspections at some mines for multiple years. Since the idle mine visit mostly impacts the one mandatory inspection requirement for mines in “intermittent” status, we analyzed inspection data for 3,233 mines that were in “intermittent” status from FY 2018 through FY 2021. We found 176 mines had received E28 codes for two or more consecutive years without MSHA conducting any mandatory inspections in those years. Figure 8 shows a yearly breakdown of the 176 mines.

Figure 8: Yearly Breakdown of 176 Mines Not Receiving Mandatory Inspections for 2 or More Consecutive Years



Source: OIG analysis of MSHA system data

Being able to operate a mine for multiple years without MSHA performing a mandatory inspection on the “entire mine” raises safety and health risks for miners working in those mines. The OIG identified this issue in its September 2011 audit report and recommended MSHA make its reporting more transparent concerning its use of idle mine visits to eliminate mandatory inspections. However, more than 10 years later, this is still an open issue as MSHA has not followed through with its intended corrective actions. This has resulted in MSHA lacking transparency in its annual reporting to Congress and the public about its annual inspection completion rates, making them unaware of the increased risk to miners given the lower number of inspections.

We also have concerns on whether MSHA is using an adequate number of E28 idle mine visits in its system report to remove an inspection requirement. If MSHA decides to update its policy to include E28 idle mine visits towards meeting inspection requirements, it should consider revising the system report to raise the number of idle mine visits needed to eliminate a mandatory inspection—from one to at least two or three—to reduce the risk of mines operating multiple consecutive years without MSHA conducting a single mandatory inspection.

We have a similar concern for the number of attempted inspections due to denial of entry by the operator (E27) the system report uses to remove an inspection requirement. MSHA should also consider revising the system report to raise the number from one to at least two attempts in the report’s business rules for E27s. This change would account for the fact that the initial citation issued to operators for these situations typically requires MSHA to return after a short period of abatement and an order would be issued to the operator on the second attempt, which shuts down the mine.

WEAKNESSES IN MSHA’S INTERNAL CONTROL SYSTEM

In addition to the breakdowns with insufficient control activities, monitoring, and information and communication discussed throughout this report, there were also key breakdowns in the other two components of the GAO Standards for Internal Control in the Federal Government—risk assessment and control environment—that contributed to the issues presented in this report, including the following:

- MSHA had not sufficiently identified or mitigated risks for the mandatory inspections program, such as incorrect mine statuses, incorrect completion rate reporting, insufficient MSHA report development, inaccurate and incomplete data, and missing or insufficient policies;

- MSHA had not sufficiently addressed concerns about the integrity of its mandatory inspections program. The OIG has received multiple hotline complaints related to the program, such as statuses not being changed timely or appropriately, mines not being entered into MSHA’s system even though inspectors were aware of them, and MSHA management discouraging inspectors from spending time on locating mines in operation that are not tracked as such in MSHA’s system; and
- MSHA has lost key personnel in its office responsible for its internal controls system. This affects MSHA’s ability to identify and correct breakdowns in its system and address OIG recommendations.

Overall, MSHA was not effectively monitoring its internal control system despite GAO’s Standards for Internal Control in the Federal Government identifying the need to do so as a key principle of its framework. Principle 16 states that “management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.” The existence of the wide range of deficiencies discussed in this report show that MSHA was not effectively incorporating GAO standards to monitor the effectiveness of its internal control system for the mandatory inspections program.

CONCLUSION

Our audit found that MSHA did not complete an estimated 1,589 mandatory safety and health mine inspections before and during the COVID-19 pandemic. However, we could not definitively calculate how many mandatory inspections MSHA did not complete for its entire mine universe because of the magnitude of challenges presented by MSHA’s data, policies, and processes.

Seven areas of weakness impaired MSHA’s process for accurately and timely determining a mine’s status, which increased the risk of MSHA incorrectly calculating required inspections and not completing the inspections necessary. In addition, we found issues affecting MSHA’s ability to accurately calculate and report on completed mandatory inspections, such as inaccurate or incomplete data, ineffective communication, missing policies, and weaknesses in its internal control system.

By not completing mandatory inspections, MSHA missed opportunities to identify hazards in mines and pursue corrective actions from mine operators to prevent possible deaths, illnesses, and injuries of miners. In addition, the issues increased the likelihood of MSHA incorrectly reporting its completion rate to Congress and the public. For example, MSHA incorrectly reported to Congress

and the public how many mandatory inspections it completed during fiscal years 2019, 2020, and 2021 and was not transparent about the number of mandatory inspections it eliminated by instead counting idle mine visits. As such, Congress was unaware of the increased risk to miners given the lower number of inspections MSHA had performed.

The issues generally occurred because MSHA had not effectively improved the design or execution of its internal control system after a September 2011 audit report found similar issues with the mandatory inspections program. Overall, we found MSHA had an ineffective internal control system for the mandatory inspections program as we identified issues across all five components of GAO's Standards for Internal Control in the Federal Government.

OIG'S RECOMMENDATIONS

We recommend the Assistant Secretary for Mine Safety and Health:

1. Report transparently each year on the number of idle mine visits (E28) and attempted inspections (E27) used to eliminate mandatory inspections each fiscal year.
2. Update MSHA policies to: (1) define a schedule for verifying mine statuses; (2) specify when visual verifications (e.g., E28 idle mine visits) are necessary; (3) limit deviations from the mine status criteria to defined exceptional situations; (4) define how "primary mine type" changes apply during calculation of inspection requirements; (5) define timeliness metrics for certification of E01 inspections; (6) require mandatory inspections start and end in the same fiscal year; and (7) define how to calculate the mandatory inspection completion rate annually.
3. Redesign monitoring processes to check Part 50 data reporting for mines on a quarterly basis, and verify timely certification of mandatory inspections and accuracy of activity codes and inspection dates.
4. Update supporting tools based on revisions to the mine status criteria.
5. Develop a process to verify if: (1) mines in "temporarily idle" status for extended periods need a change to "abandoned" status and (2) mines with underground openings are being timely sealed when their "primary mine type" is not listed as "underground."

6. Verify all underground coal mines in abandoned status for more than 90 days are either sealed (and its status updated in MSHA's system), in the process of sealing and are issued a violation for non-compliance with the regulation, or has a remark in MSHA's system indicating why it will not be sealed. This may include verifying the mine was identified for future reclamation in the Abandoned Mine Lands program inventory.
7. Communicate to staff on: (1) the current version of mine status criteria, (2) MSHA reports and tools available for the mandatory inspection program, and (3) leadership's expectations on districts correcting activity codes and when Part 50 data should be available to districts (including follow-up and violations for operators not reporting timely).
8. Add a system control to verify the "primary mine type" field is populated.
9. Update policy or procedures to: (1) clearly define when an inspection starts and ends and (2) ensure the inspection dates for an E01 mandatory inspection include any inspection work done on other events (e.g., E16 spot inspection) to make the E01 inspection an "entire mine" inspection adhering to requirements in the Mine Act.
10. Revise business rules used in MSHA reports for the mandatory inspections program to align with the Mine Act and MSHA policy, or update MSHA policy accordingly and consider raising the number of E28 idle mine visits and E27 denial of entry attempts used in MSHA reports to eliminate an inspection requirement.
11. Improve the design and execution of MSHA's internal control system for the mandatory inspections program to align with the GAO Standards for Internal Control in the Federal Government, specifically by identifying key risks through a programmatic risk assessment and collecting MSHA workforce concerns to verify or improve the integrity of the program.

OIG ANALYSIS OF MANAGEMENT'S COMMENTS

In response to a draft of this report, MSHA generally agreed with our recommendations. In response to our recommendations, MSHA stated actions it intends to take. For example, MSHA plans to update the mine status criteria and mine status tool, update policy, and implement a system control requiring the "primary mine type" field to be populated. Additionally, MSHA provided some clarifications. For example, in response to Recommendation 1, it stated that activity codes are not used to eliminate inspection requirements. In response to

Recommendation 6, MSHA stated it is not authorized to manage the Abandoned Mine Lands program. As stated in this audit report, we recognize that the U.S. Department of Interior and the states run the Abandoned Mine Lands program. To meet the intent of our recommendation, MSHA may need to coordinate with the U.S. Department of Interior or the states to verify the mines are identified for future reclamation in the Abandoned Mine Lands program inventory.

Our report was accurate as stated; therefore, we made no changes to the report based on MSHA's comments. While MSHA's response lacked a clear plan of action to fully address the recommendations, we will work with MSHA personnel to ensure the intent of the recommendations is addressed.

Management's response to the draft report is included in its entirety 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 R. Hantz
Assistant Inspector General for Audit

EXHIBIT 1: MSHA ENFORCEMENT ACTIVITY CODES

MSHA uses enforcement activity codes to identify activity types (see Table 6).

Table 6: Selection of MSHA Enforcement Activities

Activity Code	Activity	Description
E01	Regular Safety and Health Inspection	Mandatory Safety and Health Inspections of a mine...having a mine I.D. number...
E02	103(i) Spot Inspections	Mandatory spot inspections of mines that qualify under 103(i) of the Act ²⁵ ...
E03	103(g) Written Notification Hazard Complaint Inspection	Special inspections that respond to a written notice filed pursuant to 103(g) of the Act alleging a violation or imminent danger exists at a mine
E04	Verbal Hazard Complaint Inspections	Special inspections that result from a verbal or otherwise written complaint where a violation or hazardous condition is alleged...
E05	108 Injunctive Actions or Other Special Investigation Activities	All investigative activities conducted pursuant to 108 of the Act...
E06	Fatal Accident Investigation	Investigation of a death of an individual at a mine
E07	Non-Fatal Accident Investigation	Investigation of a serious non-fatal injury accident at a mine
E08	Non-Injury Accident Investigation	Investigation of non-injury accidents as defined in 30 C.F.R. Part 50.2
E09	Mine Emergency Operations	Includes all rescue and recovery operations during a mine emergency...
E10	Petition for Modification Investigation	All investigative activities conducted pursuant to 101(c) and 101(d) of the Act
E11	105(c) Investigation (Discrimination)	All investigative activities conducted pursuant to 105(c) of the Act...
E12	110(c), 110(d) Investigation (Willful or Knowing Violations)	All investigative activities conducted pursuant to 110 of the Act ...

²⁵ References to the “Act” in this table refer to the Federal Mine Safety and Health Act of 1977 (Mine Act)

Activity Code	Activity	Description
E13	Re-opening Inspection	This is a non-penalty inspection of an entire mine after having been abandoned or declared inactive.
E14	Compliance Assistance Visit	A visit to a new mine, a visit prior to re-opening a mine, a visit to inspect new facilities at an operating mine, or the installation of new equipment at an operating mine to point out potential violations without monetary civil penalties being proposed
E15	Compliance Follow-up Inspection	An inspection conducted for the primary purpose of ascertaining the abatement status of previously cited violations
E16	Spot Inspection	The inspection of a mine or part(s) of a mine to determine whether there is compliance with safety and health standards
E17	Special Emphasis Programs	Activity for a specialized purpose that may be unique for the agency, coal or metal. An example would be the “Focus on Safe Work” outreach
E18	Shaft, Slope or Major Construction Spot Inspection	An inspection of a shaft, slope, or major construction site to determine whether an imminent danger exists and whether there is compliance with safety and health standards or any issued violations
E19	Electrical Technical Investigation	An investigation of all or part of a mine’s electrical components and systems...
E20	Roof Control Technical Investigation	An investigation of a mine’s roof conditions...
E21	Ventilation Technical Investigation	An investigation of a mine’s ventilation system...
E22	Health Technical Investigation	Includes a toxic substance or harmful physical agent investigation of a reported problem or potential problem with any toxic substance or harmful physical agent...
E23	Impoundment Spot Inspection	An inspection of an impoundment...

Activity Code	Activity	Description
E24	Other Technical Compliance Investigations	Other technical investigations not described by any other code
E25	Part 50 Audit	Part 50 Audit of a mine's accident, injury, illness, and employment records...
E26	Other Contacts	Includes industry assistance, technical assistance visits for plan evaluations, and other contacts not classified by one of the other codes...
E27	Attempted Inspection (Denial of Entry)	A mine visit specifically for the purpose of conducting an enforcement activity, but the activity could not be accomplished because of direct or indirect denial of entry
E28	Mine Idle Activity	A mine visit specifically for the purpose of conducting an enforcement activity, but the activity could not be accomplished because the mine was not operating
E29	Program in Accident Reduction/Compliance Analysis Program	A program aimed at injury reduction in selected mines with high accident and injury levels...
E30	Accident Reduction Program	All activities in the field related to the accident reduction and prevention programs, and formal walk and talk activities...
E31	Training Plan Approval and Revisions (Field)	All field activities regarding the initial approval or revision of training plans
E32	On-site Training Program Evaluation (Field)	All field activities related to evaluating MSHA approved instructors, training plans, course content, task outline, 5000-23 forms, records of certified and qualified persons, learning environment, etc....
E33	Non-Chargeable Accident Investigation	Investigation of any death, serious non-fatal injury, or non-injury accident at a mine that is not charged to the mine, contractor, or the mining industry

Source: MSHA's Citation and Order Writing Handbook for Coal Mines and Metal and Nonmetal Mines, December 2013

EXHIBIT 2: MSHA FORM 2000-209, MINE STATUS DEFINITIONS

Changes to mine status are made in MSHA's system through the Mine Information Form (MSHA Form 2000-209). Based on the seven mine status options and how each is defined in the form's instructions shown as follows, inspectors select the appropriate status in Field 18 (Mine Status) of the form:

New Mine: A mine that has been assigned a Mine ID number but no work has begun at the mine site. Once physical development has begun, a status change is required.

Active: A mine that operates on a full-time basis. Temporary closure due to unusual or unforeseen circumstances, such as strikes, mine disasters, temporary maintenance shutdowns, etc. does not change this status. These are mines/mills where you could reasonably expect to conduct the statutory four or two regular inspections.

Intermittent (Surface Only): Operations that can reasonably be expected to operate sometime during the year. These operation times will vary due to the demand for the product(s) or seasonal conditions. These are operations where one inspection per year would reasonably be expected to occur.

Non-producing: Operations where production has not yet begun or has ceased, but employees perform some work at the mine/mill. These are mines/mills where you could reasonably expect to conduct the statutory four or two regular inspections.

Temporarily Idled: The work of all miners has been terminated and production related activity has ceased. The mine still has recoverable reserves and it is anticipated that this is a temporary condition and the mine will reopen in the future. This category includes surface mines that are idled beyond seasonal periods and underground mines that do not maintain ventilation or conduct underground examinations. The only activity at these mines would be security checks, visual examination of surface areas to determine conditions, or activity due to another agency's requirements (i.e., state environmental agency). These mines do not require inspections.

Abandoned: Mines that will be abandoned for the foreseeable future.

Abandoned-Sealed (Coal Only): Mines which will be abandoned for the foreseeable future. The underground openings or auger holes have been sealed.

EXHIBIT 3: MSHA FORM 7000-2 QUARTERLY MINE EMPLOYMENT AND COAL PRODUCTION REPORT

To fulfill 30 C.F.R. Part 50 requirements, mine operators report employment hours and coal production by mine location on MSHA Form 7000-2 (see Figure 9).

Figure 9: MSHA Form 7000-2, Quarterly Mine Employment and Coal Production Report

Quarterly Mine Employment and Coal Production Report				DOL - MSHA P.O. Box 253 Denver, Colo
1. Persons Working, Employee-Hours, and Coal Production				
(1) Operation sub Unit Code(s) Previously reported:	Code	(2) Average number of persons working during quarter	(3) Total employee hours worked during the quarter	(4) Production of clean coal during quarter, (short tons)
Underground Mine	Underground	01		
	Surface Shops, Yards, etc.	02		
Surface Mine (including associated shops and yards)	Strip, Open Pit, or Quarry	03		
	Auger (Coal Mine Only)	04		
	Culm Bank or Refuse Pile (Coal Mine Only)	05		
	Dredge	06		
	Other Surface Mining (Metal/Nonmetal Only)	12		
Independent Shops or Yards	17			
Mill Operations, Preparation Plants, or Breakers (include associated shops and yards)	30			
Office (professional and clerical employees at the mine or plant working in an office)	99			
2. Other Reportable Data				
How many MSHA reportable injuries or illnesses did you have this quarter?				
Person to be contacted regarding this report:	Name _____	Tel. No. () _____ area code		
	Title _____			

MSHA Form 7000-2, Oct. 2018 (revised) OMB Number 1219-0007; Approval Expire Jan. 31, 2024

Source: MSHA Form 7000-2

EXHIBIT 4: ACCIDENT DETAILS FROM MINES NOT REQUIRING MANDATORY INSPECTIONS

Using MSHA’s public accident injuries dataset, we extracted the following verbatim narratives for 11 accidents, injuries, and fatalities occurring at mines MSHA had in the “new mine,” “temporarily idle,” or “abandoned” status during FY 2018 through FY 2021. The next page lists eight similar examples prior to FY 2018. The following narratives indicate the mines were actually operating, and MSHA had them in an incorrect mine status:

1. **New mine:** “Employee was helping mechanic put left cylinder back on...Dozer when the cylinder hit against the grill on dozer smashing employee’s thumb against grill. Went to Clinic, right thumb was broke in [two] places.”
2. **New mine:** “Crane mechanic was working on the...Crane pulling the air cleaner. EE stepped back thinking EE was stepping onto the main deck from the catwalk. EE miss-stepped, missing the main deck and fell to the ground level. EE was not wearing fall protection.”
3. **New mine:** “[Two] miners in a scissor lift tacked a plate, went down to retrieve the welding lead, on the way back up at 16 feet the tacks broke the plate fell 4 feet on ee left arm causing a fracture. Plate was 3 inches by 11 and 3/8 inch. Was tacked at an elevation of 20 feet on 200 dryer. New mine site still in commencing at time of injury.”
4. **New mine:** “Miner was cleaning/shoveling excess feed from the around the mobile rinser, loader operator placed material into hopper when a compacted segment slid from grizzly grid striking miner. Miner lost EE’s balance / footing falling to the ground. During chain of events after being struck and coming to rest on the ground, miner sustained a fractured femur on EE’s left leg.”
5. **New mine:** “An employee was working with a...to pull wire. The individual got the left little finger caught in the rope; the employee couldn’t get finger out or shut the tool off in time, amputating the top of the employees’ fifth digit.”
6. **Temporarily idle:** “Conditions were good with mild temperatures, dry footing and good lighting. The accident occurred while the miner was installing a new belt on a belt press. There was an identified opening in the working platform that the miner was aware of and mis-stepped and fell through the opening. Operations were impaired during the time the miner was cared for and EMT’s were on site.”
7. **Temporarily idle:** “Operator error. Failed to set crane up in digging mode. Employee did not set the travel locks prior to digging.”

8. **Temporarily idle:** “After a long shift operator was walking the dozer down the access road from the pit and while trying to make the turn at a switchback got the tracks too far over the berm and slid down and rolled dozer down the slope, it rolled once with a slow slide.”
9. **Abandoned:** “A front-end loader operator was attempting to clear a buildup of sand from a stacker conveyor belt’s tailpiece when the operator’s arm became entangled. The victim was air lifted to a trauma center where the victim died a week later.”
10. **Abandoned:** “Task was to remove screen flare. Employee was loosening bolts, changed work location, dangerously close to excavator, without warning or eye contact with excavator operator. Excavator rotated, bucket of excavator struck employee in the upper chest resulting in death.”
11. **Abandoned:** “Employee was in the process of getting down off of the drill rig and slipped and fell hitting leg on the mud pan.”

Following are verbatim narratives for eight examples occurring at mines in “new mine”, “temporarily idle”, and “abandoned” status prior to FY 2018, which also indicated the mines were actually operating and were in an incorrect mine status:

1. **New mine:** “The EE was operating the C.M., he was making the first cut in the C.C. left from No. 4 to No. 5 entry. After making the initial cut, EE backed the C.M. into C.C. between No. 4 and 3 entries to set the machine to slab the right side of the cut. As he backed the machine into the C.C., he was pinned between the outby rib of the C.C. and the left side of the cutter head. (See attached)”
2. **New mine:** “Employee is a Roof Bolter and had just finished bolting a place. He backed the bolter up out of the way and him and the other bolter started hanging their cable up to the roof. The cable was laying in a small mud hole and when the injured picked up on the cable he received an electrical shock.”
3. **Temporarily idle:** “Put hand into open jaw and operator closed it on IR 370 trac drill. Smashed left little finger. Finger was damaged severely and was amputated.”
4. **Abandoned:** “Slipped when exiting the...Crusher, catching his right foot on the hammer resulting in a fall that fractured his right great toe.”
5. **Abandoned:** “A roof fall occurred on the Main North in entry #5 between crosscut 70 and 71. This fall was in the travelway and the travelway was re-routed around the fall. The cause of the fall was weak laminated shale...”
6. **Abandoned:** “Employee was operating a dozer vertical on a steep slope. While operating dozer employee backed over a rock and the dozer rolled over injuring right shoulder.”

7. **Abandoned:** “They were attempting to load conveyor shuttle, load was suspended in air so truck could back under it. Crane started swinging and tilting allowing load to fall. Load struck employee.”
8. **Abandoned:** “This accident has already been investigated by MSHA. The victim was found approximately 250 feet inside the mine. He was working alone and had been struck by a fall of rib.”

APPENDIX A: SCOPE AND METHODOLOGY

SCOPE

Our scope for the audit included 78,598 mandatory inspections (E01) ending in FY 2018 through FY 2021. We also included attempted inspections for denial of entry (E27) and idle mine visits (E28) in some analyses as those events could affect MSHA's calculation of its inspection completion rate for the mandatory inspections program.

We interviewed various MSHA personnel from headquarters and six districts (and six field offices within them). At headquarters, we interviewed personnel from the Offices of Enforcement and Program Evaluation and Information Resources. At the districts, the interviewed personnel included the District Managers, Assistant District Managers, Field Office Supervisors, Inspectors, and Field Office Assistants. The six districts and field offices included:

- Denver (CO) District
 - Rapid City (SD) Field Office
- Duluth (MN) District
 - Duluth (MN) Field Office
- Vacaville (CA) District
 - Anchorage (AK) Field Office
- Barbourville (KY) District
 - Barbourville (KY) Field Office
- Mt. Pleasant (PA) District
 - Frackville (PA) Field Office
- Norton (VA) District
 - Pikeville (KY) Field Office

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:

- Reviewed public laws, United States Code, Code of Federal Regulations, and MSHA guidance related to mine statuses, mandatory inspections, and the annual completion rate for the mandatory inspections program;
- Reviewed the form and instructions for MSHA Form 2000-209 (Mine Information Form) and MSHA Form 7000-2 (Quarterly Mine Employment and Coal Production);
- Interviewed MSHA headquarters, district, and field office personnel to understand the process for establishing and changing a mine’s status; the oversight process for mines to identify status changes needed; the annual completion rate for the mandatory inspections program; and the COVID-19 impact on mines and MSHA’s mandatory inspections program;
- Interviewed personnel from the National Council of Field Labor Locals, United Mine Workers of America, and West Virginia Coal Association;
- Received a walkthrough of MSHA systems from the Office of the Chief Information Officer within the Office of the Assistant Secretary for Administration and Management regarding actions and data related to mine statuses, certifications, and MSHA reports;
- Analyzed MSHA data to identify trends, patterns, or outliers regarding mining activity, mine statuses, events, and inspector time charged to events;
- Reviewed the mine status calculator to understand its relationship with MSHA mine status criteria;
- Reviewed the business rules and/or system coding for MSHA reports, such as the Regular Inspection Activity Report, E01 Inspections Still Required Report, and the Office of Enforcement analyst’s system queries for the annual completion rate; and
- Reviewed MSHA Forms 2000-209 (Mine Information Form) received for the 300 mines in MSHA’s system without the primary mine type field populated.

We assessed the reliability of computer-processed data. Through our testing, we found the data was generally complete but sometimes inaccurate. For data completeness, we found 300 blank entries in one field, “primary mine type”. Most of these entries were in “new mine” status. However, this field is a key driver for inspection requirements when coupled with a status (e.g., “active”) requiring a mandatory inspection. For data accuracy, we found issues with the inspection start date, inspection end date, and activity codes. We addressed these accuracy issues in our report and made recommendations to correct them going forward, such as improving monitoring by supervisors, adding system controls, and updating policy.

In planning and performing our audit, we considered MSHA’s internal controls relevant to our audit objective by obtaining an understanding of those controls

and assessing control risks relevant to our objective. We considered the five internal control components of control environment, risk assessment, control activities, information and communication, and monitoring during our planning and substantive phases and evaluated relevant controls. We found breakdowns across all five components of MSHA’s internal control system for the mandatory inspections program. We made recommendations to improve the policies, processes, and reliability of system data in MSHA’s internal control system for the mandatory inspections program.

CRITERIA

- Federal Mine Safety and Health Act of 1977, as amended (Mine Act)
- 30 Code of Federal Regulations, Chapter I, Mine Safety and Health Administration, Department of Labor (2022)
- 30 United States Code, Mineral Lands and Mining
- MSHA Program Policy Manual Volumes I (2013) and V (2015)
- MSHA supervisor handbooks (AH20-III-1, December 2020; AH14-III-4, January 2014; and AH09-III-1(1), June 2009)
- MSHA general inspection procedures handbooks (PH19-IV/V-1, December 2019; PH16-V-1, June 2016; and PH16-IV-1, June 2016)
- MSHA Coal Mine Safety and Health Memorandum Number HQ-12-038-A subject “Electronic Certification of E01s in MSHA Standardized Information System (MSIS)” (dated December 14, 2012)
- Different versions of MSHA mine status criteria (dated 1/24/2019, 7/31/2014, and 9/29/2011)
- GAO Standards for Internal Control in the Federal Government, GAO-14-704G, September 2014

PRIOR RELEVANT COVERAGE

During the last 11 years, the OIG has issued two reports of significant relevance to the subject of this report. Those reports are the following:

1. MSHA Must More Consistently Determine the Number of Required Inspections and More Transparently Report Inspection Results for Metal

- and Nonmetal Mines, Report No. 05-11-004-06-001
(September 29, 2011), available at:
<https://www.oig.dol.gov/public/reports/oa/2011/05-11-004-06-001.pdf>
2. COVID-19: MSHA Faces Multiple Challenges in Responding to the
Pandemic, Report No. 19-20-006-06-001 (July 24, 2020), available at:
<https://www.oig.dol.gov/public/reports/oa/2020/19-20-006-06-001.pdf>

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



October 5, 2023

MEMORANDUM FOR: CAROLYN R. HANTZ
Assistant Inspector General for Audit

FROM: 
CHRISTOPHER J. WILLIAMSON
Assistant Secretary of Labor for Mine Safety and Health

SUBJECT: Response to the Office of the Inspector General (OIG) Draft Report, *COVID-19: MSHA Did Not Complete or Accurately Report Mandatory Inspections*

The Mine Safety and Health Administration (MSHA) appreciates the opportunity to comment on the OIG's evaluation of mandatory inspection completion rates before and during the coronavirus (COVID-19) pandemic.

Below are MSHA's specific responses to the OIG recommendations regarding *COVID-19: MSHA Did Not Complete or Accurately Report Mandatory Inspections*.

OIG RECOMMENDATIONS:

OIG Recommendation 1: Report transparently each year on the number of idle mine visits (E28) and attempted inspections (E27) used to eliminate mandatory inspections each fiscal year.

MSHA can report the number of E27 and E28 events that occur each fiscal year. To clarify, MSHA's internal coding of events is not used to eliminate required inspections and MSHA requests this clarification in the final report language. MSHA conducts mandatory (E01) inspections at mines where inspections are required. An E27 event denotes a mine visit for enforcement purposes hindered by direct or indirect entry denial. An example of an indirect entry denial is when access to the mine is blocked by a locked gate or other means of blockage. Moreover, an E28 event signifies a mine visit intended for enforcement but unfulfilled due to the mine's inactivity. These distinctions are critical for maintaining transparency and ensuring that the reporting accurately reflects MSHA's inspection efforts while adhering to the Mine Act, regulatory requirements, and MSHA policy.

OIG Recommendation 2: Update MSHA policies to: (1) define a schedule for verifying mine statuses; (2) specify when visual verifications (e.g., E28 idle mine visits) are necessary; (3) limit deviations from the mine status criteria to defined exceptional situations; (4) define how "primary mine type" changes apply during calculation of inspection requirements; (5) define timeliness

metrics for certification of E01 inspections; (6) require mandatory inspections start and end in the same fiscal year; and (7) define how to calculate the mandatory inspection completion rate annually.

MSHA agrees with this recommendation and will update the mine status criteria and corresponding mine status tool. The mine status tool is used to determine the status of coal and metal and nonmetal mines by characterizing the mine type, reportable hours, and Part 50 data. This tool will be integrated into the Inspection Application System, which is a software that authorized representatives use in the field to complete mandatory inspections. MSHA will provide training for Mine Safety and Health Enforcement managers, supervisors, and inspectors.

Training will include instructions that:

1. A requirement that the mine information form (MSHA form 2000-209) be reviewed to ensure accuracy and completeness when a mandatory inspection is conducted. This review will encompass important information such as mine status and primary mine type.
2. The reporting of any mine status criteria deviations will be approved by the field office supervisor. Such approved deviations will be documented in the inspection report for transparency and accountability.
3. Mandatory (E01) inspections must start and end in the same fiscal year.
4. Mandatory (E01) inspections should be certified within 30 days after the inspection is complete. This could occur after the end of the fiscal year.

MSHA will calculate its annual completion rate by determining the number of required inspections completed. The number of required inspections varies throughout the fiscal year.

MSHA will continue to utilize the E28 idle mine visit event code, as needed. The Agency will not conduct multiple E28 events at the same mine during a fiscal year.

OIG Recommendation 3: Redesign monitoring processes to check Part 50 data reporting for mines on a quarterly basis and verify timely certification of mandatory inspections and accuracy of activity codes and inspection dates.

MSHA agrees with this recommendation. MSHA will continue to update the mine status criteria and corresponding mine status tool. The mine status tool will be integrated into the Inspection Application System. The mine status criteria will be reviewed during every mandatory (E01) inspection. Mandatory (E01) inspections should be certified within 30 days after completion of the inspections. To ensure accuracy, the supervisor will evaluate all inspection reports and work products generated by inspectors and specialists related to an assigned field activity. The selection of activity codes and inspection dates are considered internal work products.

OIG Recommendation 4: Update supporting tools based on revisions to the mine status criteria.

MSHA will update the mine status criteria and corresponding mine status tool. The mine status tool will be integrated into the Inspection Application System. The mine status criteria will be reviewed during every mandatory (E01) inspection.

OIG Recommendation 5: Develop a process to verify if: (1) mines in “temporarily idle” status for extended periods need a change to “abandoned” status and (2) mines with underground openings are being timely sealed when their “primary mine type” is not listed as “underground.”

MSHA believes that the Agency’s response to recommendation 2 helps address this recommendation. In addition, MSHA’s inspection policies and procedures will be revised to require on-site confirmation of appropriate mine status as an enforcement event each fiscal year. Notably, underground openings are timely sealed for mines that transition from underground to surface because an operator is still onsite.

OIG Recommendation 6: Verify all underground coal mines in abandoned status for more than 90 days are either sealed (and its status updated in MSHA’s system), in the process of sealing and are issued a violation for non-compliance with the regulation, or has a remark in MSHA’s system indicating why it will not be sealed. This may include verifying the mine was identified for future reclamation in the Abandoned Mine Lands program inventory.

MSHA is requesting that the recommendation be modified to eliminate the language “*identified for future reclamation in the Abandoned Mine Lands program inventory or has a remark in MSHA’s system indicating why it will not be sealed*” in light of 30 USC 877(k) and 30 CFR section 75.1711, *Sealing of mines*.

§ 75.1711 Sealing of mines. - On or after March 30, 1970, the opening of any coal mine that is declared inactive by the operator, or is permanently closed, or abandoned for more than 90 days, shall be sealed by the operator in a manner prescribed by the Secretary. Openings of all other mines shall be adequately protected in a manner prescribed by the Secretary to prevent entrance by unauthorized persons.

MSHA authorized representatives issue Mine Act 104(a) citations for violations of mandatory standards, including this standard, and issue Mine Act 104(b) withdrawal orders for failure to abate the 104(a) citation.

MSHA is not authorized to manage the Abandoned Mine Lands (AML) Program. The AML Program is administered by the U.S. Department of the Interior Bureau of Land Management, <https://www.blm.gov/programs/aml-environmental-cleanup/aml/about-aml>. Program funding comes from a federal reclamation fee on coal that has been mined in the United States since the late 1970’s. The AML Program funds States and other programs to eliminate existing and potential public hazards that result from abandoned surface and underground coal mines. The State AML Program was approved by the U.S. Department of the Interior in 1981 under the authority of the Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87, Title IV).

Additionally, MSHA notes the following definitions prescribed in 30 CFR section 57.2, relating to underground non-coal mines:

- “Abandoned mine” means that all work has stopped on the mine premises, and an office with a responsible person in charge is no longer maintained at the mine.
- “Abandoned workings” means the deserted mine areas in which further work is not intended.

OIG Recommendation 7: Communicate to staff on: (1) the current version of mine status criteria, (2) MSHA reports and tools available for the mandatory inspection program, and (3) leadership’s expectations on districts correcting activity codes and when Part 50 data should be available to districts (including follow-up and violations for operators not reporting timely).

MSHA believes that the Agency’s response to recommendation 2 helps to address this recommendation. In addition, training will emphasize that every mandatory (E01) inspection incorporates a thorough examination of Part 50 data to ensure accuracy and completeness.

OIG Recommendation 8: Add a system control to verify the “primary mine type” field is populated.

MSHA plans to integrate a system control within the Inspection Application System, mandating the completion of the “primary mine type” data field.

OIG Recommendation 9: Update policy or procedures to: (1) clearly define when an inspection starts and ends and (2) ensure the inspection dates for an E01 mandatory inspection include any inspection work done on other events (e.g., E16 spot inspection) to make the E01 inspection an “entire mine” inspection adhering to requirements in the Mine Act.

Mandatory (E01) inspections should start and end in the same fiscal year that the inspection completion is counted. MSHA emphasizes that event codes are part of MSHA’s internal processes. The Mine Act requires that inspections take place where miners are working; it does not require that internal event codes be used to fulfill the mandate.

OIG Recommendation 10: Revise business rules used in MSHA reports for the mandatory inspections program to align with the Mine Act and MSHA policy, or update MSHA policy accordingly and consider raising the number of E28 idle mine visits and E27 denial of entry attempts used in MSHA reports to eliminate an inspection requirement.

MSHA believes that the Agency’s response to recommendation 1 helps to address this recommendation.

OIG Recommendation 11: Improve the design and execution of MSHA’s internal control system for the mandatory inspections program to align with the GAO Standards for Internal Control in the Federal Government, specifically by identifying key risks through a programmatic risk assessment and collecting MSHA workforce concerns to verify or improve the integrity of the program.

MSHA has taken steps to address this recommendation by developing and implementing policies and procedures aimed at enhancing the internal control system for conducting mandatory inspections. By incorporating elements from the GAO Standards for Internal Control

in the Federal Government, MSHA is proactively working to identify key risks through programmatic risk assessments and soliciting feedback from its workforce to ensure program integrity. MSHA has incorporated ongoing monitoring of mandatory (E01) inspection completion rates by using an automated tool to monitor the number of inspections completed and required during a fiscal year. This approach, coupled with regular training for Mine Safety and Health Enforcement personnel, to stay updated on relevant policies and procedures, reflects MSHA's commitment to maintaining the accuracy and integrity of its mandatory (E01) inspection program, thus bolstering the Agency's regulatory oversight and safety objectives.

APPENDIX C: ACKNOWLEDGMENTS

Key contributors to this report were:

Grover Simmons, Audit Director
Nicholas Christopher, Audit Director
Christopher Wenthold, Audit Manager
Kathleen Mitomi, Auditor-in-Charge
Cory Grode, Auditor
Michael Towne, Auditor
Carmelle Paytes, Auditor
Angela Stewart, Auditor
Brandon Hollenbeck, Auditor
Dennis Asante, Data Scientist
Dr. LaKeisha Jones, Statistician
Labony Chakraborty, Writer-Editor
Jesselyn Hamilton, Writer-Editor
Carla Orvis Hunt, Writer-Editor
Lisa Finnican, Associate Counsel

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Fax

(202) 693-7020

Address

Office of Inspector General
U.S. Department of Labor
200 Constitution Avenue NW
Room S-5506
Washington, DC 20210