

September 12, 2024

MEMORANDUM FOR: CHRISTOPHER J. WILLIAMSON

Assistant Secretary

for Mine Safety and Health

FROM: CAROLYN R. HANTZ

Assistant Inspector General

for Audit

SUBJECT: MSHA Generally Provided Adequate Oversight

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of Miner Training, Though Opportunities to

Strengthen Controls Exist Report No. 19-24-004-06-001

The purpose of this memorandum is to advise the Mine Safety and Health Administration (MSHA) of the results of an audit conducted by the Office of Inspector General (OIG) on MSHA's oversight of miner training. The audit objective was to determine to what extent MSHA ensured adequate oversight of miner training before and during the COVID-19 pandemic, and how it has ensured preparedness for future crises. Upon completion of the audit work, we determined MSHA's oversight of miner training was generally adequate, and the lessons learned from the COVID-19 pandemic should assist MSHA in preparing for future crises.

MSHA's mission is to prevent death, disease, and injury from mining and to promote safe and healthful workplaces for the nation's miners. To assist in achieving this purpose, MSHA reviews, approves, and monitors the implementation of the health and safety training plans mandated by Section 115 of the Federal Mine Safety and Health Act of 1977 (Mine Act) for each operator of a mine.

The requirements associated with implementing the training provisions of the Mine Act, as codified within 30 C.F.R., are summarized below:

 Part 46 provides requirements for submitting and obtaining the approval of programs for training and retraining miners at non-coal surface mines.

- Part 48, Subpart A, provides the requirements for submitting and obtaining the approval of programs for training and retraining miners working in underground mines.
- Part 48, Subpart B, provides the requirements for submitting and obtaining the approval of programs for training and retraining miners working at surface mines and surface areas of underground mines.

Two key MSHA oversight programs are responsible for ensuring training compliance with the Mine Act:

- The Educational Policy and Development program plans, monitors, and evaluates MSHA's education and training program. It also provides entry-level and journeyman training for MSHA's enforcement staff, provides guidance on training programs and activities, and reviews all training materials developed in support of these activities.
- The Mine Safety and Health Enforcement program is responsible for performing training-related activities such as: conducting mine inspections, investigating accidents, managing safety and health conferences with mine operators, issuing citations and orders, training and certifying instructors, and reviewing education and training plans submitted by mine operators.

MSHA's National Mine Health and Safety Academy is also an essential a part of miner safety and health. The Academy trains MSHA mine inspectors, mine safety professionals from other government agencies, and the mining industry.

The OIG previously reported on the challenges MSHA experienced during the COVID-19 pandemic.<sup>1</sup> In March 2020, states issued stay-at-home orders, which led to MSHA cancelling and postponing in-person training activities. MSHA suspended or reduced 18 in-person training activities, 5 in-person enforcement activities, and 13 other in-person activities. The scope period of the audit was April 29, 2020, through May 2020.

Our work for this audit covered the period of October 1, 2017, through March 31, 2023, and focused on the efforts of the Mine Safety and Health Enforcement program (see the Attachment for additional details on scope and methodology). With the issuance of this memorandum, our audit objective is satisfied, and the audit is closed. As we did not issue recommendations to MSHA, no official management response is required.

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<sup>&</sup>lt;sup>1</sup> COVID-19: MSHA Faces Multiple Challenges in Responding to the Pandemic, Report No. 19-20-006-06-001 (July 24, 2020), available at <a href="https://www.oig.dol.gov/public/reports/oa/2020/19-20-006-06-001.pdf">https://www.oig.dol.gov/public/reports/oa/2020/19-20-006-06-001.pdf</a>

# MSHA'S Oversight of Miner Training was Generally Adequate, but Opportunities to Strengthen Internal Controls Exist

We found MSHA districts and field offices generally displayed a consistent understanding of internal controls, policies, and procedures and conducted oversight of miner training, including the review of the training plans submitted by mine operators. Specifically, through the performance of safety and health inspections, MSHA ensured training plans were submitted timely and generally complied with federal laws and regulations. In addition, MSHA identified trends in miner accidents and fatalities and has already started to mitigate risks and improve miner safety.

Through our work, we determined MSHA could enhance its internal controls over miner training by applying a tool already used for Metal/Nonmetal (MNM) inspections to its coal mine inspections. Furthermore, MSHA gained insight from the COVID-19 pandemic in the areas of communications, training, operations, and staffing that should better prepare the agency for future crises.

MSHA Generally Displayed Consistent Knowledge of Requirements and Conducted Oversight of Miner Training Plans in Its Districts and Field Offices

We determined that MSHA personnel across the districts were generally knowledgeable of federal regulations over miner training and provided evidence in support of MSHA's related management controls and oversight performed. Specifically, this pertained to the following five training programs addressed in 30 C.F.R. Part 48 and Part 46:

- new miner training,
- newly hired experienced miner training,
- new tasks training,
- annual refresher training, and
- site-specific hazard awareness training.

We tested a sample of 130 training plans and documentation in support of 133 MSHA safety and health inspections. Safety and Health Inspections (E01) are only performed on mines that are identified as being in an inspectable status (i.e. Active, Non-producing, or Intermittent). We selected the 133 Safety and Health Inspections for testing from a universe of E01 inspections identified as completed during our audit period of October 1, 2017, to March 31, 2023. Therefore, the inspections tested in this audit did not include mines in a status identified as not requiring inspections (new mine, temporarily idle, abandoned, or abandoned-sealed). We also did not include mines not inspected for other

reasons, as identified in our audit focused on MSHA mandatory inspections, issued October 17, 2023.<sup>2</sup>

We performed our testing to determine if internal controls were in place to ensure:

- plans adequately addressed the five training programs listed above,
- plans were submitted by the mine operators and timely approved by MSHA when applicable, and
- MSHA inspectors reviewed training plans and miner training files while on-site at the mines.

The results of our audit testing confirmed controls were in place, as described during the interviews, and were working effectively.

Of the 130 samples reviewed, 30 were coal training plans and 100 were MNM training plans, which covered 14 of the 15 MSHA district offices.<sup>3</sup> We found MSHA's oversight of mine operators' training plans were generally timely and consistent among coal and MNM mines and were in compliance with applicable laws and regulations.

# MSHA Enforces Its Miner Training Oversight Through Safety and Health Inspections

Through a review of safety and health inspections, which fall under activity code E01, we found MSHA's oversight of miner training was generally consistent and in compliance with applicable laws and regulations. We reviewed a sample of 26 coal mine inspection events and 107 MNM mine inspection events covering 14 of the 15 MSHA district offices. MSHA conducts this mandatory oversight to:

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<sup>&</sup>lt;sup>2</sup> COVID-19: MSHA Did Not Complete or Accurately Report Mandatory Inspections, Report No. 19-24-001-06-001 (October 17, 2023), available at: https://www.oig.dol.gov/public/reports/oa/2024/19-24-001-06-001.pdf

<sup>&</sup>lt;sup>3</sup> The 15 MSHA districted offices are located in Barbourville, KY; Beckley, WV; Birmingham, AL; Dallas, TX; Denver, CO; Duluth, MN; Lakewood, CO; Madisonville, KY; Morgantown, WV; Mt. Pleasant, PA; Norton, VA; Pineville, WV; Vacaville, CA; Vincennes, IN; and Warrendale, PA. No mines in the Morgantown district were selected in our random judgmental samples.

<sup>4</sup> MSHA could not provide two E01 events (1.5 percent) selected for testing, and two E01 events.

<sup>&</sup>lt;sup>4</sup> MSHA could not provide two E01 events (1.5 percent) selected for testing, and two E01 events (1.5 percent) provided were mislabeled as an E01 but were actually an E16 and E28 event. We do not consider these deficiencies to be an indication of a systemic problem with MSHA's oversight of miner training.

- obtain, utilize, and disseminate information relating to health and safety conditions, the causes of accidents, and the causes of diseases and physical impairments originating in such mines;
- gather information with respect to mandatory health or safety standards;
- · determine whether an imminent danger exists; and
- determine whether there is compliance with the mandatory health or safety standards or with any citation or order.

These E01 inspection events also include the review of miner training records and the mine's overall training plan to ensure compliance. As evidence of MSHA's oversight, we found 11 citations or orders issued by MSHA inspectors for various training-related violations. We also found examples in E01 inspection event notes of MSHA inspectors conducting safety meetings and conferences, as well as holding discussions with miners while on the mine site.

## MSHA Has Already Started to Address Identified Issues

We found MSHA identified trends in miner accidents and fatalities and has already started to mitigate risks and improve miner safety in the areas of greatest concern.

During the audit, we identified a total of 15,255 mines<sup>5</sup> with mine identification numbers, consisting of 1,391 coal mines and 13,864 MNM mines. Utilizing MSHA's data within our audit period, we analyzed accidents, injuries, and fatalities to identify incidents that may be related to miner training.<sup>6</sup> Coal mines accounted for 11,959 of the 32,328 accidents within the period, and MNM accounted for the remaining 20,369 accidents. Of the accidents reported, 76 percent were found in the five accident classifications noted in Table 1.

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<sup>&</sup>lt;sup>5</sup> The total of 15,255 mines accounts for mines active (meaning the mine was in operation at some point) during the audit period of October 1, 2017, to March 31, 2023.

<sup>&</sup>lt;sup>6</sup> MSHA's injuries and accidents data are combined due to injuries resulting from accidents.

**Table 1: Most Common Accident Classifications** 

Accident Classification	Percent of Total
Handling Materials	29.4%
Slip or Fall of Person	18.2%
Hand Tools	10.9%
Machinery	10.0%
Powered Haulage	7.6%

Source: Based on data within the MSHA Standardized Information System (MSIS) and MSHA Centralized Application System (MCAS)

Three of the above accident classifications—powered haulage, machinery, and slip or fall of person—also accounted for 60 percent of the fatalities reported during the same period (see Table 2).

**Table 2: Most Common Fatality Classifications** 

Fatality Classification	Percent of Total
Powered Haulage	30%
Machinery	24%
Slip or Fall of Person	6%

Source: Based on data within the MSHA Standardized Information System (MSIS) and MSHA Centralized Application System (MCAS)

Ultimately, the responsibility of training miners resides with mine operators. However, MSHA is required by law to provide training, education, and technical assistance to the mine operators and to verify miner training requirements are met by the operators through E01 inspections.

For our detailed review, we assessed fatality reports instead of accident reports, given investigations that follow a fatal accident provide more information than a standard accident report. The fatality investigation reports include miner training details, such as, if the miner's training was current, inadequate, or lacked task training. All completed fatality investigations we reviewed included an "Enforcement Actions" section that referenced the orders and citations issued to the mine operators for any violations identified by MSHA's accident investigators. Furthermore, each issued citation included a reasonable timeframe established by the inspector for the abatement of the violation by the mine operator.

Orders issued by MSHA inspectors can close a mine or sections of a mine when conditions are deemed unsafe for miners. Orders can also be issued against the

mine operator for failure to abate a violation previously cited.<sup>7</sup> From the 168 fatality reports reviewed, MSHA investigators identified "no task training" or "inadequate task training" in 54 incidences (32 percent). MSHA's investigations and enforcement actions that were noted within the investigation reports provided additional evidence of MSHA's oversight of miner training. As a result, we found no systemic weaknesses in MSHA's oversight of miner training from our analysis of the fatality reports.

Prior to completing our audit, MSHA identified the above top two fatality classifications as areas warranting further attention. According to MSHA's Agency Management Plans (AMP), powered haulage accidents accounted for 60 percent of the fatalities in Fiscal Year (FY) 2018. MSHA's Operating Plans from FY 2018 through FY 2021 and AMPs from FY 2022 through FY 2024 included agency themes and strategies to reduce powered haulage injuries. They also emphasized improvements in training and education across the mining industry.

According to MSHA, in FY 2019 powered haulage fatalities amounted to 33 percent of all fatalities. In its FY 2020 Operating Plan, MSHA proposed to draft a final rule to help protect the safety of miners from accidents, injuries, and fatalities due to surface mobile equipment, which included powered haulage. That fiscal year, powered haulage fatalities dropped to 27 percent. Unfortunately, MSHA later reported that FY 2021 powered haulage fatalities increased to 41 percent of all fatalities. Due to ongoing concerns, MSHA continued to emphasize<sup>8</sup> the reduction of powered haulage accidents in its agency themes and strategies recorded in the FY 2022 and FY 2023 AMPs. One strategy in FY 2022 was to develop the previously proposed final rule.

The FY 2023 AMP expanded the strategies for powered haulage safety to include more focus on the safety of non-miner personnel, such as mine customers and contract drivers. Mine customers include for example, farmers coming to the mine to purchase a load of agricultural lime for use on their farm. A dump truck driver contracted by the mine to pick up loads of mine product for transportation is an example of a contracted driver. Our analysis found some fatalities involved visiting mine customers and contracted drivers, which contributed to the FY 2021 and FY 2022 fatalities. For example, in August 2021, MSHA reported a contracted truck driver died when the truck he was performing

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MSHA, Citation and Order Writing Handbook, Handbook No. PH20-I-3 (December 2020), available at: <a href="https://arlweb.msha.gov/READROOM/HANDBOOK/PH20-I-13.pdf">https://arlweb.msha.gov/READROOM/HANDBOOK/PH20-I-13.pdf</a>; and MSHA Program Policy Manual, Volume 1: Interpretation and Guidelines on Enforcement of the 1977 Act, available at: <a href="https://arlweb.msha.gov/REGS/COMPLIAN/PPM/PDFVersion/PPM%20Vol%20I.pdf">https://arlweb.msha.gov/REGS/COMPLIAN/PPM/PDFVersion/PPM%20Vol%20I.pdf</a>
MSHA's reduction efforts included more safety outreach materials on the website; working with stakeholders to identify and promote hazards and best practices; technical assistance; safety training; research safety technology; consistent messaging with alerts for awareness, initiatives, on-site conferences, and a phone app deployment in Calendar Year 2022.

a pre-operational inspection on rolled forward.<sup>9</sup> The FY 2023 AMP also included strategies to provide more training materials in Spanish and to ensure Section 508 accessibility requirements are met.<sup>10</sup>

Within all Operating Plans and AMPs from FY 2018 through FY 2023, MSHA leadership established a strategic focus to strengthen and modernize training. Planned actions supporting this goal included enhancing the National Mine Health and Safety Academy's involvement in training across the field.

Further significant events occurred in FY 2024 that were not analyzed as a part of our audit given they occurred outside of our audit period. However, these events are noted given their relevance to MSHA's oversight of miner training. In December 2023, MSHA published a final rule in the Federal Register entitled "Safety Program for Surface Mobile Equipment." This final rule places requirements on mine operators to have safety programs in place surrounding the use of mobile equipment. In addition, in MSHA's FY 2024 AMP, agency themes and strategies expanded upon prior efforts to reduce powered haulage accidents, injuries, and fatalities by applying them to machinery. Finally, the FY 2024 AMP strategized the use of manufacturers' operating manuals to perform task training.

# MSHA Could Strengthen Internal Controls Over Miner Training

We identified an opportunity for MSHA management to strengthen its internal controls over miner training reviews during E01 inspections. According to the MSHA General Inspection Procedures Handbook, inspectors should review approximately 10 percent of training records, and more records can be reviewed if necessary to verify the miners received the required training. We found that MNM mine inspectors used MSHA Form 4000-49B Regular Inspection Information in their inspection event documentation, which provides a standard checklist that includes fields called "Training Plan Reviewed" and "Number of Training Forms Reviewed". These fields prompt the inspector to note the reviewed training plans and how many training forms were reviewed to support miners' completion of required training. It also strengthens internal controls

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<sup>&</sup>lt;sup>9</sup> MSHA, "August 11, 2021 Fatality - Final Report," Report No. FAI-6281414-1 (August 2021), last accessed August 6, 2024, available at: https://www.msha.gov/sites/default/files/Data Reports/Fatals/Enforcement/2021/August%2011%

<sup>&</sup>lt;sup>10</sup> Section 508 of the Rehabilitation Act of 1973 requires federal departments to make their Information and Communication Technology accessible to people with disabilities, in a way that is comparable to those without disabilities, last accessed August 6, 2024, available at: <a href="https://www.section508.gov/manage/laws-and-policies/">https://www.section508.gov/manage/laws-and-policies/</a>

<sup>&</sup>lt;sup>11</sup> Mine Safety and Health Enforcement General Inspection Procedures Handbook, Handbook No. PH19-IV/V-1 (December 20, 2019), last accessed April 17, 2024, available at: <a href="https://arlweb.msha.gov/READROOM/HANDBOOK/PH19-IV.pdf">https://arlweb.msha.gov/READROOM/HANDBOOK/PH19-IV.pdf</a>

during supervisor reviews to ensure at least 10 percent of the training forms were reviewed by the inspector.

During our testing of coal mine inspection documentation, we found MSHA Form 4000-49B was not being used. While the inspectors noted that they reviewed training forms, they often did not include the number of forms reviewed. The use of MSHA Form 4000-49B would prompt the inspector to list the number of training forms reviewed and would provide the supervisor a specific location within the inspection documentation to verify the number of forms reviewed meets the 10 percent requirement. Adding this tool to MSHA's coal mine inspection process or otherwise implementing a similar checklist would enable inspectors to consistently ensure they review the proper number of training forms.

## Impact of COVID-19 Pandemic on Miner Training

MSHA learned lessons from the COVID-19 pandemic within the areas of operations, staffing, communications, and training that should help to prepare the agency for future crises.

The COVID-19 pandemic impacted the manner in which MSHA addressed certain mission requirements and necessitated modifications to ensure mission-critical activities continued, including inspections and training. In some instances, mine operators alerted MSHA to changes in production at a site. Some mines also experienced a reduced workforce during the pandemic which impacted mine operations. In response, MSHA worked with the operator to determine the limited number of inspectors needed at a site to effectively perform required inspections. In these situations, the number of inspectors sent were proportional to the mine's degree of continued operations. In spite of the inspection adjustments made during the pandemic, MSHA generally continued to conduct the EO1 inspections.

Based on our interviews, a review of MSHA's guidance, and the OIG's previous report on challenges MSHA experienced during the COVID-19 pandemic, 12 we identified that MSHA took various actions to limit potential COVID-19 transmission by inspectors and miners. These actions included:

- incorporating social distancing by inspectors to the extent feasible,
- discussing violations with the mine operator or their designee over the phone instead of holding an in-person conference,

<sup>12</sup> COVID-19: MSHA Faces Multiple Challenges in Responding to the Pandemic, Report No. 19-20-006-06-001 (July 24, 2020), last accessed June 5, 2024, available at:

https://www.oig.dol.gov/public/reports/oa/2020/19-20-006-06-001.pdf

- reviewing some mine records outside of the mine office to limit contact with mine office personnel, and
- shipping hand sanitizer to its district and field offices for its inspectors.

Additionally, MSHA increased communications during the pandemic by providing timely updates to impacted stakeholders, districts, and field offices. Specifically, MSHA increased the frequency of their meetings with field offices to better communicate conditions and changes in the districts and in mine operations. MSHA also leveraged its website and mobile app to quickly inform impacted parties of policy and/or procedural changes.

Furthermore, MSHA adjusted its training requirements during the pandemic to provide miners a safe learning environment, including the allowance of virtual training, which is a platform that can now be utilized during a future crisis.

The annual refresher training sessions were impacted most by the pandemic. Refresher training sessions are typically conducted with large groups meeting at one location. As a result of nationwide health concerns arising from the COVID-19 pandemic, MSHA granted mine operators extensions for this training through Calendar Year 2020.<sup>13</sup> These extensions allowed the miners to ultimately exceed the annual requirement in the following miner training categories: annual refresher training certification (30 C.F.R. Part 46) and surface and underground annual refresher training certification (30 C.F.R. Part 48).

Given the high level of risk associated with new miners working in a dangerous environment such as an MNM or coal mine, exemptions did not apply to new miner training.

In our analysis of MSHA inspections, violations, and citations data, we found an increase in the number of E01 inspections performed within each year of our audit period. The increase generally indicates no pandemic impact on MSHA's oversight through E01 inspections. However, during the peak COVID-19 period in 2020 and 2021, the number of violations decreased (see Figure 1).

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<sup>&</sup>lt;sup>13</sup> The refresher training requirement was waived for the remainder of Calendar Year 2020 due to the President's COVID-19 national emergency declaration in March of 2020. While the declaration did not initially include an expiration, MSHA advised its refresher training be resumed in Calendar Year 2021.

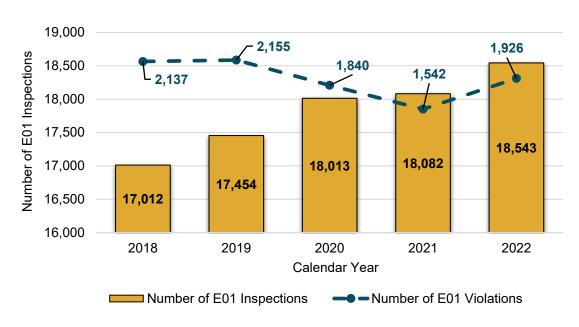


Figure 1: Number of E01 Inspections and Violations<sup>14</sup>

Source: Based on data within the MSHA Standardized Information System (MSIS) and MSHA Centralized Application System (MCAS)

According to MSHA, the reduction in violations during the years 2020 and 2021 were due to the pandemic. The inspections were conducted as indicated, but the mine operations were more limited in nature. Specifically, mine operations were slowed, sections of mines were shut down, miners were laid-off, and annual refresher training was extended.

No official management response is required of MSHA. In providing this memorandum to MSHA, the OIG considers this audit closed. This memorandum, however, does not preclude the OIG from conducting a follow-up audit of this subject at a later date.

We appreciate the cooperation and courtesies MSHA personnel extended to the OIG. If you have any questions about this information, please contact Grover Simmons, Audit Director, at (312) 353-2176 or <a href="mailto:simmons.grover@oig.dol.gov">simmons.grover@oig.dol.gov</a>.

cc: Julie E. Aaronson
Deputy Assistant Secretary for Policy

Patricia W. Silvey
Deputy Assistant Secretary for Operations

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<sup>&</sup>lt;sup>14</sup> The audit period ended March 31, 2023; therefore, the 2023 inspections and violations were not included in the analysis.

Brian Goepfert Administrator, Mine Safety and Health Enforcement

Nancy Rooney Director, Educational Policy and Development

Attachment

#### SCOPE AND METHODOLOGY

## Scope

This audit focused on coal mine and MNM miner training procedures, policies, and training plans for programs listed in 30 C.F.R. § 46.3 and § 48.3. The programs under review included the following training areas: new miners, newly hired experienced miners, new tasks, annual refresher, and site-specific hazard awareness. The scope of our audit covered the period October 1, 2017, through March 31, 2023.

#### Limitation

Safety and Health Inspections (E01) are only performed on mines that are identified as being in an inspectable status (i.e. Active, Non-producing, or Intermittent). We selected 133 Safety and Health Inspections for testing from a universe of E01 inspections identified as completed during our audit period of October 1, 2017, to March 31, 2023. Therefore, the inspections tested in this audit did not include mines in a status identified as not requiring inspections (new mine, temporarily idle, abandoned, or abandoned-sealed). Also, it did not include mines not inspected for other reasons, as identified in our audit on MSHA mandatory inspections, issued October 17, 2023. 15

## 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To answer our audit objective, we performed the following activities:

- reviewed documentation, laws, regulations, policies, and procedures related to miner training plans;
- interviewed key MSHA headquarters, district, and field office officials;
- determined if MSHA adequately and timely reviewed training plans submitted from October 1, 2017, to March 31, 2023; and
- determined if MSHA adequately monitored a sample of mandatory E01 inspections from October 1, 2017, to March 31, 2023, by

<sup>&</sup>lt;sup>15</sup> COVID-19: MSHA Did Not Complete or Accurately Report Mandatory Inspections, Report No. 19-24-001-06-001 (October 17, 2023), available at: <a href="https://www.oig.dol.gov/public/reports/oa/2024/19-24-001-06-001.pdf">https://www.oig.dol.gov/public/reports/oa/2024/19-24-001-06-001.pdf</a>

way of examining a judgmental, stratified random sample of 30 coal mines.

Row Labels	Facility	Facility Sample	Surface	Surface Sample	Underground	Underground Sample
Coal	279	10	763	10	349	10
Total	279	10	763	10	349	10

and a statistical (i.e., 30 percent error rate, 7 percent precision, and 95 percent confidence), stratified random sample of 100 MNM mines:

Row Labels	Universe	Percent	Sample	Adjusted Sample	Percent
Facility	8	3.6	3	8	8.0
Surface	213	96.4	92	92	92.0
Total	221	100.0	95	100	100.0

and, determined what MSHA has done to prepare for future crisis.

# Data Reliability

Of the 18 datasets received from the MSHA Standardized Information System and MSHA Centralized Application System data table from October 1, 2017, to March 31, 2023, 7 datasets were used in the planning and performing of this audit:

- MINES TBL Data table
- MINE STATUSES TBL Data table
- ACCIDENT INJURY TBL Data table
- EVENTS TBL Data table
- CITATIONS TBL Data table
- VIOLATIONS TEXT TBL Data table
- OFFICES TBL Data table

We assessed the reliability of this data by verifying that all fields were consistent with column headings, no duplicates were observed in the dataset, no calculated fields were in this dataset, and missing values were among an acceptable missing range (10 percent or less). Based on these factors, it was determined that the data were sufficiently reliable for the purposes of this audit. However, there were limitations of the data, and they include:

- Information pertaining to the training plans (Part 46 and Part 48)
  employed by mines was not available in the universe and,
  therefore, could not be used as a criterion for sampling. Training
  plan information was gleaned during the audit and was reported by
  way of descriptive representativeness in the sample cannot be
  confirmed.
- 219 new mines and 1 abandoned mine (approximately 1.4 percent of the universe) were removed from the universe as they were the missing *mine type* variable.
- The initial plan to make projections was diverted due to the validity of Part 46 data and a number of duplicate mine identification numbers; thus, the training plan original universe had to be divided into two universes (Part 46 and Part 48) resulting the removal of Part 46 mines from the original selected sample and proceeding with what is now a separate judgmental sample size of 30 Part 48 mine identification numbers that were originally randomly selected.

#### Internal Controls

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 internal control elements of control environment, risk assessment, control activities, information and communication, and monitoring during our planning and substantive phases, and evaluated relevant controls. The objective of our audit was not to provide assurance of the internal controls; therefore, we did not express an opinion on MSHA's internal controls. Our consideration of internal controls for administering the accountability of the program would not necessarily disclose all matters that might be significant deficiencies. Because of the inherent limitations on internal controls, or misstatements, noncompliance may occur and not be detected.

#### Criteria

- Federal Mine Safety and Health Act of 1977
- Title 30 C.F.R. Part 46 Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines
- Title 30 C.F.R. Part 48 Training and Retraining of Miners
- MSHA's Program Policy Manual Volume III, Part 46 (Release III-25, April 2005)
- MSHA's Program Policy Manual Volume III, Part 48 (Release III-22, July 2003)

Attachment

- MSHA Handbook Series Mine Safety and Health Enforcement General Inspection Procedures Handbook (PH19-IV/V-1, December 2019)
- MSHA's Handbook Series Citation and Order Writing Handbook (PH20-I-3, December 2020)
- MSHA Handbook Series Mine Safety Accident Investigation Procedures Handbook (PH20-I-4, December 2020)
   GAO Standards for Internal Control in the Federal Government, GAO-14-704G, September 2014

## Prior Relevant Coverage

During the last 12 years, the OIG issued three reports of significant relevance to the subject of this report, as follows:

- 1. COVID-19: MSHA Faces Multiple Challenges in Responding to the Pandemic, Report No. 19-20-006-06-001 (July 24, 2020), available at: <a href="https://www.oig.dol.gov/public/reports/oa/2020/19-20-006-06-001.pdf">https://www.oig.dol.gov/public/reports/oa/2020/19-20-006-06-001.pdf</a>
- 2. MSHA's Oversight of Mine Operators' Training Plans Was Adequate, Report No. 05-12-003-06-001 (September 28, 2012), available at: https://www.oig.dol.gov/public/reports/oa/2012/05-12-003-06-001.pdf
- 3. COVID-19: MSHA Did Not Complete or Accurately Report Mandatory Inspections, Report No. 19-24-001-06-001 (October 17, 2023), available at: https://www.oig.dol.gov/public/reports/oa/2024/19-24-001-06-001.pdf