



OFFICE OF INSPECTOR GENERAL

U.S. Department of Energy

INSPECTION REPORT

DOE-OIG-22-29

April 2022

**FIRE PROTECTION CONCERNS AT
THE WASTE ISOLATION PILOT PLANT**



Department of Energy
Washington, DC 20585

April 15, 2022

MEMORANDUM FOR THE SECRETARY

SUBJECT: Inspection Report on Fire Protection Concerns at the Waste Isolation Pilot Plant

The attached report discusses our review of allegations regarding fire protection concerns at the Waste Isolation Pilot Plant. This report contains seven recommendations that, if fully implemented, should help ensure that the issues identified during this inspection are corrected. Management fully concurred with our recommendations.

We conducted this inspection from May 2021 through December 2021 in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation* (December 2020). We appreciated the cooperation and assistance received during this evaluation.

A handwritten signature in black ink, appearing to read "Anthony Cruz".

Anthony Cruz
Assistant Inspector General
for Inspections, Intelligence Oversight,
and Special Projects
Office of Inspector General

cc: Deputy Secretary
Chief of Staff
Assistant Secretary for Environmental Management



**Department of Energy
Office of Inspector General**

**Fire Protection Concerns at
the Waste Isolation Pilot Plant**
(DOE-OIG-22-29)

**WHY THE OIG
PERFORMED THIS
REVIEW**

The Office of Inspector General received allegations regarding firefighting concerns at the Waste Isolation Pilot Plant (WIPP). Specifically, the complainant alleged that there were proposed changes to the Baseline Needs Assessment that would have resulted in safety concerns and noncompliant conditions. In addition, the complainant alleged that training records were either falsified or lied about such as with the Technical Rescue program. The complainant also alleged that the Fire Department vehicle fleet was in disrepair from years of neglected maintenance.

We initiated this inspection to determine the facts and circumstances regarding the alleged firefighting concerns at WIPP.

What Did the OIG Find?

We did not substantiate the allegation that there were proposed changes to the Baseline Needs Assessment that would have resulted in safety concerns and noncompliant conditions. However, we found that the WIPP contractor used a superseded version of a Department of Energy Order when drafting the 2020 Baseline Needs Assessment, which could have impacted its content. In addition, while we did not substantiate the allegation that Fire Department training records were falsified or lied about, there were significant and recurring issues pertaining to the Fire Department training program going back to at least calendar year 2016 that were identified in prior internal assessments. These issues included undeveloped training curriculum for the Technical Rescue program. Finally, we substantiated the allegation that the WIPP Fire Department vehicle fleet was in disrepair from years of neglected maintenance. A WIPP contractor official told us that Fire Department vehicle maintenance procedure revisions were in progress.

What Is the Impact?

WIPP has experienced growth with the number of buildings and employees since 2006 and is anticipated to operate beyond 2050. The next management and operating contractor must be able to provide effective emergency response at WIPP to protect lives, property, and the environment.

What Is the Path Forward?

To address the issues identified in this report, we have made seven recommendations that, if fully implemented, should help ensure that the issues identified during our inspection are corrected.

BACKGROUND

The Department of Energy's Waste Isolation Pilot Plant (WIPP) is the Nation's only geologic repository for the disposal of defense-generated transuranic waste from Department sites around the country. Transuranic waste consists of clothing, tools, residues, debris, soil, and other items contaminated with small amounts of plutonium and other man-made radioactive elements. WIPP is located southeast of Carlsbad, New Mexico, where waste is permanently disposed of in rooms mined in an underground salt bed layer over 2,000 feet beneath the surface. WIPP is managed and operated by Nuclear Waste Partnership, LLC (NWP) with oversight by the Department's Carlsbad Field Office (CBFO). WIPP operations and activities are authorized by the Hazardous Waste Facility Permit (HWFP), which is issued by the Secretary of the New Mexico Environment Department to sanction the Department and NWP to receive, manage, store, and dispose of transuranic waste. In addition, the HWFP establishes standards for those activities pursuant to New Mexico laws and regulations.

The HWFP establishes the WIPP Fire Department as the primary provider of fire suppression, technical rescue, emergency medical services, and hazardous materials response for the protection of personnel in both surface and underground facilities. The Department and NWP have established agreements with Federal, state, and local emergency response agencies and mining companies near the WIPP facility for firefighting, medical assistance, and hazardous materials response. WIPP established a fire brigade due to the site's small size and limited number of buildings. During February 2014, WIPP had two operational emergencies that led to a shutdown of site operations involving an underground mine fire and a radiological release underground. According to a February 2018 Office of Enterprise Assessments report, NWP transitioned from a fire brigade to a fire department staffed with full-time emergency responders¹ since the accidents. NWP still maintains the Fire Department based on the requirements of the National Fire Protection Association (NFPA) 600, *Standard on Facility Fire Brigades*.

On February 25, 2021, the Office of Inspector General Hotline received allegations regarding firefighting concerns at WIPP. Specifically, the complainant alleged that there were proposed changes to the Baseline Needs Assessment² (BNA) that would have resulted in safety concerns and noncompliant conditions. In addition, the complainant alleged that training records were either falsified or lied about such as with the Technical Rescue program, which consists of training in areas like rope rescue, structural collapse operations, and vehicle extrication. Finally, the complainant alleged that the Fire Department vehicle fleet was in disrepair from years of neglected maintenance that severely hampered possible responses to life safety issues and that the estimated cost to the Department for the deferred maintenance could be in the tens of thousands of dollars.

We initiated this inspection to determine the facts and circumstances regarding the alleged firefighting concerns at WIPP.

¹ Fire Department personnel serve as an industrial fire brigade and are trained to respond to surface emergencies onsite, including fires, medical emergencies, and hazardous material releases.

² BNAs address facility hazards, response capabilities, response time requirements, staffing levels and training, apparatus and equipment, mutual aid agreements, and procedures.

BASELINE NEEDS ASSESSMENT CHANGES

We did not substantiate the allegation that there were proposed changes to the BNA that would have resulted in safety concerns and noncompliant conditions. In October 2019, NWP initially proposed substantial changes to the BNA in an effort to transition to a Fire Department based on more expansive NFPA standards. The proposed changes included increasing firefighter staffing to levels required by the NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, rather than NFPA 600 requirements. The proposed changes were rejected by the CBFO in December 2019. A CBFO official told us that the fire risks for WIPP are known and that NFPA 600 requirements provided WIPP enough firefighters for response. According to the official, due to the 2014 incident (the underground mine fire), the Fire Department now maintains a larger force.

We do not question the CBFO's decision to reject NWP's initial BNA proposal. However, we found that NWP used a superseded version of Department Order 420.1C, *Facility Safety*. Specifically, NWP used Department Order 420.1C (Change 1) when drafting the 2020 BNA, which could have impacted its content. Department Order 420.1C was modified in July 2018 (Change 2) and then again in November 2019 (Change 3), which established the use of DOE-STD-1066-2016, *Fire Protection*, as the applicable fire protection standard for use at Department facilities.

NWP used DOE-STD-1066-2012, *Fire Protection*, a superseded version of the Department fire protection standard, to develop the 2020 BNA. There are differences between the two versions, with DOE-STD-1066-2016 establishing expectations that the BNA should be based on more complex responses to scenarios; this includes the Fire Department's response to a single significant emergency event, such as a fire or explosion that includes a casualty requiring medical assistance, and at the same time responding to a one-person medical emergency, such as a heart attack or fall with injuries. In contrast, DOE-STD-1066-2012 did not establish expectations for the BNA to be based on two separate medical emergencies. Thus, the 2020 BNA did not address an additional medical response despite 750 NWP personnel supporting the operation at WIPP (with the maximum load for the underground set at 145 occupants) and numerous subcontractors routinely supporting NWP. In fact, the BNA dismissed an additional medical response because it was only considered as an optional offsite response that was dependent on the availability of Fire Department resources. Nonetheless, the Fire Department responded to six offsite requests for assistance from January 2021 through May 2021. The BNA did not address a potential emergency event that could occur onsite at WIPP if firefighters had already been dispatched to assist with an offsite request.

By not updating the management and operating (M&O) contract to include the most recent version of Department Order 420.1C or obtaining an exemption, the CBFO did not always provide effective management and oversight of the NWP M&O contract. We determined that the CBFO did not incorporate Department Order 420.1C (Change 3) into the NWP M&O contract because it did not introduce Department Order 420.1C as a high priority in a timely manner. Specifically, a CBFO official stated that the CBFO did not update the NWP M&O contract because the CBFO did not have enough resources to do all that was necessary, including

updates to the M&O contract. However, as of August 2021, the NWP M&O contract had over 300 modifications since the contract's inception in April 2012. Nine of those contract modifications involved revising the list of Department directives. In November 2021, another CBFO official told us that the CBFO determined that Department Order 420.1C (Change 1) was sufficient for the site and that exemptions³ to Department Order 420.1C (Change 2 and Change 3) should have been requested. The official stated that the CBFO would formally request an impact statement from NWP for Department Order 420.1C (Change 2 and Change 3) after our November 2021 discussion where we raised the issue. CBFO officials also informed us that the Request for Proposal for the new WIPP M&O contract acquisition included Department Order 420.1C (Change 3) on the list of applicable Department directives, which we confirmed.

In addition, the CBFO did not ensure that NWP adequately considered DOE-STD-1066-2016 expectations or documented a sufficient alternative approach demonstrating an equivalent level of safety to those expectations. According to Department Order 420.1C (Change 3), fire protection and emergency response programs may specify provisions for relief (i.e., equivalencies) from identified and applicable fire protection codes and standards. Per Department Order 420.1C (Change 3), equivalencies to Department Technical Standards determined to be applicable must demonstrate an equivalent level of safety (i.e., meets or exceeds the level of protection). While Department technical standards such as DOE-STD-1066-2016 do not establish requirements, the standard does denote that "should" statements represent Department technical expectations. In addition, Department subject matter experts stated that the Department contractor should have addressed any portions of DOE-STD-1066-2016 that it did not consider.

We also found that NWP has been inconsistent with its application of DOE-STD-1066-2016. The WIPP Fire Protection Engineering group incorporated DOE-STD-1066-2016 into the Fire Protection Program, which became effective April 2021. The purpose of the Fire Protection Program is to recognize, evaluate, prevent, and limit the consequences of fire hazards in the workplace. The program identifies activities, personnel, and key responsibilities (including the Fire Department). We questioned why the Fire Department continued applying fire protection expectations from a Department Technical Standard that was superseded 5 years ago, while the Fire Protection Engineering group utilized DOE-STD-1066-2016. CBFO officials did not provide technical justification as to why CBFO did not require NWP to utilize DOE-STD-1066-2016.

FIRE DEPARTMENT TRAINING PROGRAM DID NOT MEET REQUIREMENTS

We did not substantiate the allegation that Fire Department training records were fraudulently falsified or fabricated. However, there are significant and recurring issues pertaining to the Fire Department training program going back to at least 2016 that have been identified in prior internal assessments, including undeveloped training curriculum for the Technical Rescue program. In addition, firefighters claimed that their training needs were not being met. We found that the Fire Department training issues continued to persist because NWP inadequately addressed and closed recommendations from prior internal assessments to resolve training

³ An exemption is a release from compliance with one or more requirements in a Department directive, as granted by the exempting organization's Head of the Departmental Element.

deficiencies identified in these prior internal assessments. NWP also failed to formally elevate the recurring Fire Department training issues in the Department's Occurrence Reporting and Processing System (ORPS). To further amplify matters, the CBFO's oversight assessments were inadequate in identifying NWP's firefighter training issues for the CBFO to take specific action.

Recurring Fire Department Training Deficiencies

We did not substantiate the allegation that Fire Department training records were fraudulently falsified or fabricated. While there were missing training records, there was no evidence that training records had been fraudulently modified or falsified. However, there were significant and recurring issues pertaining to the Fire Department training program going back to at least 2016 that were identified in prior internal assessments, including undeveloped training curriculum for the Technical Rescue program. The October 2016 BNA found that there was inadequate training and qualification for the firefighters. For example, the BNA stated that there was no objective evidence that drills were conducted in accordance with NFPA 600 requirements, even though drills are vital when evaluating a response to realistic scenarios to keep skills current while identifying areas of improvement. The BNA also determined that there was no evidence that firefighters had technical rescue training for onsite or offsite response.

In addition, a July 2019 NWP Quality Assurance surveillance found that the Fire Department training program was inadequately implemented or documented. Specifically, the NWP Quality Assurance team determined that the Fire Department training program did not meet Department Order 420.1C, DOE-STD-1066-2012, or the HWFP. The surveillance stated that the lack of an adequate Fire Department training program was considered a "Significant Condition Adverse to Quality." The NWP Quality Assurance team identified significant findings involving undeveloped training and missing records, including:

- Fifty two percent of firefighters had not requalified for a particular area in the Technical Rescue program, and there was no training material or any training documented according to required procedures;
- The assessment team requested all Fire Department training documentation and was presented with limited information developed on the day the assessment began;
- The Fire Department's Deputy Chief of Training failed to document any NFPA required training, certification, and requalification; and
- The assessment team determined that nearly half of the firefighters had not participated in the required live fire training for at least 1 year, and some had not participated in over 2 years.

To compound these problems, NWP's April 2021 management self-assessment on firefighter training records again identified significant issues with the Fire Department training program, including findings that not all firefighter training records were maintained in accordance with the HWFP requirements and that training records could not be located or were not completed, as required. In addition, the assessment also found that requirements of the Fire Department

training program were not consistently implemented and the training curriculum had not been developed. Again, the undeveloped training curriculum included the Technical Rescue program. The management self-assessment reviewed 19 training areas, and 15 of the 19 areas (79 percent) were determined to be unsatisfactory.

Inadequate Training Provided

Regarding inadequate implementation of the Fire Department training program identified in prior assessments, WIPP firefighters also expressed concerns with poor training. We interviewed several WIPP firefighters while onsite at WIPP, and each firefighter claimed that their training needs were not being met. Their primary concern was that the majority of training provided was web-based as opposed to hands-on training (e.g., live fire drills, vehicle extrication, rope training, and fire suppression exercises). The firefighters expressed concern that without adequate training, they would lose their skills. One firefighter described his position as “low frequency/high consequence,” meaning that while certain events occur rarely, when they do, there are high consequences if a firefighter is not trained to properly respond. An NWP official also stated that the current training plan was inadequate to maintain the firefighters’ skill set.

Improper Closure of WIPP Forms

We found that the Fire Department training program issues persisted because NWP inadequately addressed and closed recommendations to resolve the training deficiencies identified in prior internal assessments. During our review, we identified several instances where NWP improperly closed “WIPP Forms” to manage the completion of corrective actions and closure of findings. Specifically, we found that NWP closed the WIPP Form specifying corrective action for addressing the 2016 BNA findings on technical rescue training without evidence that the training was developed in accordance with NFPA standards. In addition, an NWP official closed out all WIPP Forms associated with the July 2019 NWP Quality Assurance surveillance’s training issues to transfer them to a new WIPP Form along with other corrective actions related to another Fire Department assessment. NWP performed a root cause analysis, which directed the development of a “crosswalk” analysis to address individual findings in the July 2019 Quality Assurance surveillance and related assessments. However, we found that NWP closed that WIPP Form without developing the crosswalk to address significant individual findings on undeveloped training and missing records. Therefore, the inadequate implementation and documentation of the Fire Department training program, including technical rescue training, was left unresolved in 2021.

We also determined that NWP inadequately closed one of the corrective actions associated with the April 2021 management self-assessment on missing firefighter training records. According to NWP’s statement to close out the action, the Fire Department provided a copy of firefighter certificates to address the missing training records issue. However, our review of the certificates and licenses for current firefighters identified missing training certificates for three firefighters. NWP informed us that obtaining the training certificates for some of the firefighters was not possible at the time of our request because the firefighters were out of the office. In addition, we found that while four firefighters had out-of-state driver licenses, they did not have New Mexico driver licenses, as required by the Fire Department Training plan, to drive and operate

emergency vehicles. NWP provided those certificates or completed equivalency justifications after we inquired about the certificates and out-of-state driver licenses. For example, we inquired about the driver licenses on August 24, 2021, and NWP completed the equivalency justifications to demonstrate that the out-of-state driver licenses authorized the firefighters to operate emergency vehicles on September 2, 2021. Therefore, based on our inquiry results, we question whether NWP obtained the firefighter documentation to properly close out the corrective action or collected them from the firefighters.

Failure to Elevate Fire Department Training Issues

The training deficiencies continued, in part, because NWP failed to formally elevate the recurring Fire Department training issues by not reporting issues in ORPS. The purpose of ORPS is to notify the Department of events in a timely manner that could adversely affect, among other things, public or worker health and safety, functioning of Department facilities, or the Department's reputation. NWP's screening of the findings in the July 2019 NWP Quality Assurance surveillance and the April 2021 management self-assessment did not result in those issues being reported in ORPS, even though the recurring issues of potential safety concern met ORPS reporting criteria for "Management Concerns and Issues" as the Fire Department is responsible for worker and public safety, responding to both onsite and offsite emergencies. By failing to report Fire Department training deficiencies to ORPS, those deficiencies were not elevated to the CBFO for review to ensure that appropriate actions were taken to resolve the issues.

Inadequate CBFO Assessments

To further amplify matters, the CBFO's oversight assessments were inadequate in identifying NWP's firefighter training issues for the CBFO to take specific action. Specifically, the CBFO performed assessments of firefighter training where it erroneously concluded that the firefighters were trained in accordance with requirements. Despite firefighter training issues identified in the 2016 BNA, the July 2019 NWP Quality Assurance assessment, and numerous WIPP Forms, the CBFO failed to adjust its methodology in its review of firefighter training as part of its March 2017 and April 2020 fire protection program surveillances. The CBFO teams performed test work for those surveillances by only reviewing Firefighter Authorization Card forms, rather than updating its testing methodology to include a review of actual training records to support and validate the signatures and dates on the forms. In both surveillances, the CBFO incorrectly concluded that firefighters were trained in accordance with requirements, which contributed to continuous problems with the Fire Department training program.

The CBFO provided us with its October 2021 assessment of NWP's Training and Qualification Program, which included the Fire Department. The CBFO assessment found that NWP had not: (1) met the requirement to review and/or verify training products were current, and (2) ensured training deficiencies identified to address performance problems utilized the corrective action process. The CBFO's findings, in conjunction with our more detailed findings, maximize the opportunity for improvement of the NWP Training and Qualification Program.

FIRE DEPARTMENT VEHICLES NOT MAINTAINED

We substantiated the allegation that the WIPP Fire Department vehicle fleet was in disrepair from years of neglected maintenance that could have hampered possible emergency response capabilities and that repairing those vehicles could cost the Department approximately \$157,000. The Department's Office of Environmental Management responded to the Office of Inspector General Hotline in January 2021 for a similar allegation regarding safety concerns to aging fleet equipment and vehicles in disrepair. According to that allegation, many vehicles were out of service, and the Fire Department had to borrow equipment to provide coverage. The Office of Environmental Management's January 2021 response confirmed that four site emergency vehicles (two fire trucks, a rescue truck, and an ambulance) were out of service due to the vehicles being at the-end-of-service life or awaiting repairs and were temporarily replaced with leased vehicles from local municipalities and vendors. The Office of Environmental Management also asserted that by leasing vehicles, the Fire Department was able to be fully operational and maintain compliance with the HWFP's emergency vehicle requirements. In June 2021, we observed those four out-of-service emergency vehicles during our site visit to WIPP.

However, NWP has begun to take action to address maintenance issues. One action included a February 2021 NWP management self-assessment on Fire Department vehicle maintenance. The report identified that although the Fire Department was procedurally compliant when it came to vehicle preventive maintenance, the procedures did not consider each vehicle's low mileage. The overall maintenance schedule for each vehicle was prompted by mileage requirements. For example, an out-of-service fire truck with electrical and rear axle issues had 7,500 miles, but only one oil change had been performed in 7 years because the maintenance procedure established the oil change interval at 5,000 miles.

The corrective actions associated with NWP's management self-assessment included the Fire Department Cognizant Engineer reviewing and updating maintenance procedures for the Fire Department vehicles. Specifically, revisions to maintenance procedures should consider low mileage and ensure that manufacturer recommendations are followed. An engineering service request to revise maintenance procedures was submitted in March 2021. As of November 2021, an NWP official told us that these maintenance procedure revisions were still in progress.

Finally, the Fire Department acquired two new fire trucks. The Fire Department placed the new fire trucks into service in February 2021 and May 2021. According to an NWP official, the cost for the fire trucks was approximately \$1.2 million. Based on our findings, we concluded that NWP had taken appropriate action to address vehicle maintenance issues.

IMPACT

A March 2014 Department report found that repeat deficiencies at WIPP were identified in the Department's and external agencies' assessments and that those deficiencies were allowed to remain unresolved for extended periods of time without ensuring effective site response. Unfortunately, we found that NWP continued to struggle with repeat deficiencies, some as long as 5 years.

While the Department issued a request for proposal to prospective contractors for the new WIPP M&O contract, the NWP M&O contract was extended through March 2022 with an option to extend the term of the contract to September 2022. WIPP has experienced growth with the number of buildings and employees since 2006. In addition, WIPP is anticipated to operate beyond 2050. Therefore, it is imperative that NWP and CBFO take action to resolve the repeat deficiencies and incorporate Department Order 420.1C (Change 3) into the existing and new contract. The next M&O contractor must be able to provide effective emergency response at WIPP to protect lives, property, and the environment.

RECOMMENDATIONS

We recommend that the Manager, CBFO:

1. Incorporate Department Order 420.1C (Change 3) and any other revised Department directives immediately into the NWP M&O contract. If the CBFO determines that Department Order 420.1C (Change 3) is not warranted at this time, ensure that an exemption is obtained.
2. Implement a process to ensure that the CBFO incorporates revisions to Department directives in a timely manner.
3. Direct NWP to review and address the closures of recommendations and corrective actions for the July 2019 NWP Quality Assurance surveillance on the Fire Department training program and the April 2021 management self-assessment on firefighter training records to ensure those closures are adequate. This should include particular attention to the development and implementation of technical rescue training and other quality training to maintain firefighter skills and techniques in accordance with appropriate NFPA standards.
4. Direct NWP to report the Fire Department training issues identified in the July 2019 NWP Quality Assurance surveillance and the April 2021 management self-assessment in ORPS to elevate recurring issues of potential safety concern, as required.
5. Ensure that NWP completes the Fire Department vehicle maintenance procedure revisions that are in progress.

We also recommend that the Associate Principal Deputy Assistant Secretary for Field Operations, Office of Environmental Management:

6. Determine whether the CBFO should require NWP, or the subsequent M&O contractor, to revise the BNA once Department Order 420.1C (Change 3) is incorporated into the M&O contract. If not, ensure that the CBFO directs NWP or the subsequent M&O contractor to obtain an equivalency to the Department Order 420.1C (Change 3) establishment of DOE-STD-1066-2016 as the applicable fire protection standard, or document an alternative approach to DOE-STD-1066-2016 that demonstrates an equivalent level of safety and addresses portions that NWP did not consider.

7. Direct the CBFO to update procedures that provide guidance on the methodologies for conducting fire protection surveillances so that adequate assessments are performed, including firefighting training.

MANAGEMENT RESPONSE

Management fully concurred with our recommendations and provided corrective actions taken. According to the Office of Environmental Management, while there have been many actions taken to improve and strengthen the WIPP Fire Department training program and fleet maintenance, it realizes that there is still work to be done and that WIPP continues to make progress in ensuring first responders have all the necessary training and equipment to handle any event in relation to WIPP operations.

INSPECTOR COMMENTS

Management's comments and corrective actions are responsive to our recommendations.

Appendix 1: Objective, Scope, and Methodology

OBJECTIVE

We conducted this inspection to determine the facts and circumstances regarding the alleged firefighting concerns at the Waste Isolation Pilot Plant (WIPP).

SCOPE

The inspection was performed from May 2021 through December 2021. Our scope included a review of fire protection concerns related to the WIPP Fire Department from calendar year 2016 through calendar year 2021. The inspection was conducted under Office of Inspector General project number S21AL018.

METHODOLOGY

To accomplish our inspection objective, we:

- Reviewed Department of Energy directives, National Fire Protection standards, and WIPP policies and procedures;
- Reviewed the WIPP Hazardous Waste Facility Permit for Fire Department training and emergency vehicle requirements;
- Held discussions with Federal and contractor program officials with subject matter expertise in the inspection areas;
- Reviewed the October 2016 and December 2020 Baseline Needs Assessments and determined whether the recommendations were addressed;
- Reviewed prior internal and external assessments relevant to the inspection effort;
- Reviewed Fire Department vehicle inspections and maintenance records; and
- Reviewed firefighter training records.

We conducted our inspection in accordance with the *Quality Standards for Inspection and Evaluation* (December 2020) as put forth by the Council of the Inspectors General on Integrity and Efficiency. We believe that the work performed provides a reasonable basis for our conclusions.

Management officials waived an exit conference on April 5, 2022.

Appendix 2: Management Comments



Department of Energy

Washington, DC 20585

MEMORANDUM FOR: TERI DONALDSON
INSPECTOR GENERAL
IMMEDIATE OFFICE OF THE INSPECTOR GENERAL, IG-1

FROM: NICOLE NELSON-JEAN *Nicole Nelson-Jean* 4-1-2022
ASSOCIATE PRINCIPAL DEPUTY ASSISTANT SECRETARY
FOR FIELD OPERATIONS
OFFICE OF ENVIRONMENTAL MANAGEMENT

SUBJECT: Draft Inspection Report on "Fire Protection Concerns at the
Waste Isolation Pilot Plant", S21AL018

Thank you for the opportunity to provide EM's perspective on this draft report and its recommendations. Safety is always EM's highest priority and our commitment to safety is reflected at the Waste Isolation Pilot Plant (WIPP). Since 2014, WIPP has handled all incidences in a manner that reflects EM's strong commitment to safety, ensuring the safety of the workforce, public and environment. WIPP has also strived to provide the necessary support needed to the local communities to help them respond to any WIPP related incidences and assist with local emergencies. There have been many actions taken to improve and strengthen the Fire Department training program and fleet maintenance, however, we do realize there is still work to be done and WIPP continues to make progress in ensuring local fire departments and first responders have all necessary training and equipment to handle any event in relation to WIPP's operations. Actions taken, described in recommendation responses, fully address the report's seven recommendations.

Recommendation 1: Immediately incorporate Department Order (O) 420.1C, Change 3 into the Nuclear Waste Partnership's (NWP) Management & Operating (M&O) contract, and any other revised Department directives that have not yet been incorporated into the contract.

Management Response: Concur. While EM strongly believes use of DOE O 420.1c, Chg. 3, would have resulted in a similar BNA to the current BNA, DOE O 420.1C, Change 3 is in the follow-on Waste Isolation Pilot Plant (WIPP) M&O Request for Proposal (RFP). Award of the new WIPP M&O contract is expected in the near future.

Estimated Completion Date: Completed

Recommendation 2: Implement a process that ensures that the CBFO incorporates revisions to Department directives in a timely manner.

Management Response: Concur. The CBFO has a process in place to incorporate revisions contained in a directives clause. This clause is in the current and follow-on WIPP M&O contract/RFP. The CBFO will request an exemption to an Order if it is determined to not fully implement DOE Order change(s).

Appendix 2: Management Comments

Estimated Completion Date: Completed

Recommendation 3: Direct NWP to review and address the closures of recommendations and corrective actions (CA) for the July 2019 NWP Quality Assurance (QA) surveillance on the Fire Department training program and the April 2021 management self-assessment on firefighter training records to ensure those closures are adequate.

This should include particular attention to the development and implementation of technical rescue training and other quality training to maintain firefighter skills and techniques in accordance with the appropriate National Fire Protection Association (NFPA) standards.

Management Response: Concur. Direction was given to NWP to examine its training program(s) and associated corrective actions implemented over the last five years to determine where systematic approaches to developing and implementing training is deficient or ineffective on January 6, 2022.

Estimated Completion Date: Completed

Recommendation 4: Direct NWP to report the Fire Department training issues identified in the July 2019 NWP QA surveillance and the April 2021 management self-assessment in the Department's Occurrence Reporting and Processing System (ORPS) to elevate recurring issues of potential safety concern as required.

Management Response: Concur. The CBFO agrees the need to elevate contractor attention on recurring issues of potential safety concerns is required. However, the use of the ORPS system, which is a communication tool for DOE, is not the appropriate mechanism to focus contractor attention on correcting recurring potential safety concerns. The CBFO utilized its contractual authority to elevate the concern to contractor management. The letter dated January 6, 2022, directed NWP to "examine its training program(s) and associated corrective actions implemented over the last five years to determine where systematic approaches to developing and implementing training is deficient or ineffective."

Estimated Completion Date: Complete

Recommendation 5: Ensure that NWP completes the Fire Department vehicle maintenance procedure revisions that are in progress.

Management Response: Concur. NWP has revised WP 12-FP.26, WIPP Fire Department Apparatus Inspection, Maintenance, and Replacement Guide and corresponding subcontract statements of work that implement the maintenance of emergency response vehicles.

Estimated Completion Date: Complete

We also recommend that the Associate Principal Deputy Assistant Secretary for Field Operations, Office of Environmental Management:

Appendix 2: Management Comments

Recommendation 6: Determine whether the CBFO should require NWP, or the subsequent M&O contractor, to revise the BNA once Department Order 420.1C (Change 3) is incorporated into the M&O contract. If not, ensure that the CBFO directs NWP or the subsequent M&O contractor to obtain an equivalency to the Department Order 420.1C (Change 3) establishment of DOE-STD-1066-2016 as the applicable fire protection standard, or document an alternative approach to DOE-STD-1066-2016 that demonstrates an equivalent level of safety and addresses portions that NWP did not consider.

Management Response: Concur. EM headquarters has reviewed the current BNA and determined that it does not need to be revised. Further as explained in the response to recommendation 1, DOE O 420.1C (Change 3) has been included in the M&O RFP.

Estimated Completion Date: Complete

Recommendation 7: Direct the CBFO to update procedures that provide guidance on the methodologies for conducting fire protection surveillances so that adequate assessments are performed, including firefighting training.

Management Response: Concur. The CBFO has reorganized putting the QA division in the same organization as the Safety and Health oversight. This will ensure assessments include a compliment of assessors and Subject Matter Experts to ensure comprehensive assessments are performed.

Estimated Completion Date: Complete

FEEDBACK

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