



**Department of Energy**  
**Under Secretary for Nuclear Security**  
**Administrator, National Nuclear Security Administration**  
**Washington, DC 20585**



October 11, 2023

Dr. Thomas Mason  
Laboratory Director  
Triad National Security, LLC  
P.O. Box 1663, MS-A100  
Los Alamos, New Mexico 87545

NEA-2023-02

Dear Dr. Mason:

This letter refers to the U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with a radioactive material release from a glovebox system at the Plutonium Facility (PF-4) at Los Alamos National Laboratory (LANL) on January 7, 2022. The DOE Office of Enterprise Assessments' Office of Enforcement provided the results of the investigation to Triad National Security, LLC (Triad) in an investigation summary, dated February 28, 2023. An enforcement conference was convened on April 5, 2023, with you and members of your staff to discuss the report's findings and Triad's response. A summary of the enforcement conference and list of attendees is enclosed.

The National Nuclear Security Administration (NNSA) considers this radioactive material release and potential worker dose to be of high safety significance. The event occurred when a glovebox breach resulted in contamination of two workers, airborne radioactive material, and continuous air monitor alarms. There were also indications of potentially significant internal dose, and one worker received medical treatment for dose mitigation. While Triad's evaluation assigned no dose to the workers, the release of radioactive material was a near miss to a significant dose. The event revealed deficiencies in: (1) hazard identification and control, (2) the unreviewed safety question (USQ) process, (3) quality improvement, (4) work processes, and (5) occupational radiation protection requirements.

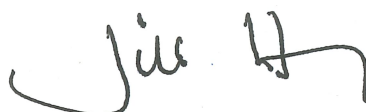
Based on the evaluation of the evidence in this matter, including information presented at the enforcement conference, NNSA concludes that Triad violated requirements enforceable under 10 Code of Federal Regulations (CFR) Part 820, *Procedural Rules for DOE Nuclear Activities*, including 10 CFR Part 830, *Nuclear Safety Management*, Subpart A, *Quality Assurance Requirements*, 10 CFR Part 830, Subpart B, *Safety Basis Requirements*, and 10 CFR Part 835, *Occupational Radiation Protection*. NNSA hereby issues the enclosed Preliminary Notice of Violation (PNOV) which cites five Severity Level II violations with a total base civil penalty, before mitigation, of \$617,500.

NNSA withheld \$1,599,589 of the available contract award fee for Goal 5: Mission Enablement for fiscal year 2022, in part for deficiencies related to this event. In consideration of this action and in accordance with established DOE enforcement practices, NNSA elects to exercise discretion and proposes no civil penalty for the violations cited in this PNOV.

Pursuant to 10 CFR § 820.24, *Preliminary Notice of Violation*, you are obligated to file a written reply within 30 calendar days after the date of filing of the enclosed PNOV and to follow the instructions specified in the PNOV when preparing your response. If you fail to submit a reply within the 30 calendar days, NNSA may pursue a Default Order, in accordance with 10 CFR § 820.33, *Default order*, Subsection (a). Alternatively, you may terminate this enforcement action by providing a reply that waives any right to contest the PNOV. If you elect this option, the PNOV will be deemed a Final Order upon the filing of the reply.

After reviewing your reply to the PNOV, including any proposed additional corrective actions entered into DOE's Noncompliance Tracking System, NNSA will determine whether any further activity is necessary to ensure compliance with DOE nuclear safety requirements. NNSA will continue to monitor the completion of corrective actions until this matter is fully resolved.

Sincerely,

A handwritten signature in black ink, appearing to read "Jill Hruby". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jill Hruby

Enclosures:

1. Preliminary Notice of Violation (NEA-2023-02)
2. Enforcement Conference Summary and List of Attendees

cc: Theodore Wyka, NA-LA  
Venessa Chavez, Triad National Security, LLC  
Anthony Pierpoint, EA-10

## Preliminary Notice of Violation

Triad National Security, LLC  
Los Alamos National Laboratory

NEA-2023-02

A U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with a radioactive material release from a glovebox system at the Plutonium Facility (PF-4) at Los Alamos National Laboratory (LANL) revealed multiple violations of DOE nuclear safety requirements by Triad National Security, LLC (Triad). The event occurred on January 7, 2022, when a glovebox breach resulted in contamination of two workers, airborne radioactive material, and continuous air monitor alarms. There were also indications of potentially significant internal dose, and one worker received medical treatment for dose mitigation. While Triad's evaluation assigned no dose to the workers, the release of radioactive material was a near miss to a significant dose. The release of radioactive material was confined within PF-4 and did not pose a risk to the public or to workers outside the immediate vicinity of the glovebox.

DOE provided Triad with an Investigation Summary, dated February 28, 2023, and convened an enforcement conference with Triad's representatives on April 5, 2023, to discuss the investigation summary's findings and Triad's response. A summary of the enforcement conference, along with a list of attendees, is enclosed.

Pursuant to Section 234A of the *Atomic Energy Act of 1954*, as amended, and DOE regulations set forth in 10 Code of Federal Regulations (CFR) Part 820, *Procedural Rules for DOE Nuclear Activities* (Part 820), the National Nuclear Security Administration (NNSA) hereby issues this Preliminary Notice of Violation (PNOV) to Triad. The violations included deficiencies in: (1) hazard identification and control, (2) the unreviewed safety question (USQ) process, (3) quality improvement, (4) work processes, and (5) occupational radiation protection requirements. NNSA determined that there were five violations in total, categorizing each as Severity Level II.

Severity Levels are explained in Part 820, Appendix A, *General Statement of Enforcement Policy*. Paragraph VI(b) states that "Severity Level II violations represent a significant lack of attention or carelessness toward responsibilities of DOE contractors for the protection of public or worker safety which could, if uncorrected, potentially lead to an adverse impact on public or worker safety at DOE facilities."

In consideration of the mitigating factors and prior to the adjustment for contract fee reduction, NNSA calculated a civil penalty of \$617,500. However, partially in response to the violations associated with these events, NNSA withheld \$1,599,589 of the available contract award fee for Goal 5: Mission Enablement for fiscal year 2022. As a result, NNSA elects to exercise discretion and proposes no civil penalty for the violations cited in this PNOV.

As required by 10 CFR § 820.24(a) and consistent with Part 820, Appendix A, the violations are listed below. Citations specifically referencing the quality assurance criteria of 10 CFR § 830.122 also constitute violations of § 830.121(a), which requires compliance with those quality assurance criteria.

## I. VIOLATIONS

### A. Hazard Identification and Control

Title 10 CFR § 830.201, *Performance of work*, requires contractors to “perform work in accordance with the DOE-approved safety basis for a Hazard Category 1, 2, or 3 DOE nuclear facility and, in particular, with the hazard controls that ensure adequate protection of workers, the public, and the environment.”

Title 10 CFR § 830.204, *Document safety analysis* (DSA), Section (b)(4), requires the DSA for a Hazard Category 1, 2, or 3 DOE nuclear facility to “[d]erive the hazard controls necessary to ensure adequate protection of workers, the public, and the environment, demonstrate the adequacy of these controls to eliminate, limit, or mitigate identified hazards, and define the process for maintaining the hazard controls current at all times and controlling their use.”

Triad TA55-DSA-2020-R0.1, *TA-55 Documented Safety Analysis*, dated June 2020, Section 3.3.1, *Methodology*, confirms that the hazard analysis complies with DOE-STD-3009-94, Change Notice 3, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Analysis Reports*.

DOE-STD-3009-94, Change Notice 3, Section 4.4.X.2, *System Description*, states that contractors are responsible for identifying “structures, systems, and components (SSCs) whose failure would result in a safety significant SSC<sup>1</sup> losing the ability to perform its required safety function. These SSCs would also be considered safety-significant SSCs for the specific accident conditions or general rationale for which the safety-significant designation was made originally.” Section 4.4.X.4, *System Evaluation*, states that contractors are to “[e]valuate the capabilities of the SSC to meet performance criteria.” Section 4.4.X.5 states that contractors need to identify “assumptions requiring TSRs [technical safety requirements]<sup>2</sup> to ensure performance of the safety function.”

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<sup>1</sup> “Safety significant structures, systems, and components” is defined at 10 CFR § 830.3 as “the structures, systems, and components which are not designated as safety class structures, systems, and components, but whose preventive or mitigative function is a major contributor to defense in depth and/or worker safety as determined from safety analyses.”

<sup>2</sup> “Technical safety requirements (TSRs)” is defined at 10 CFR § 830.3 as “the limits, controls, and related actions that establish the specific parameters and requisite actions for the safe operation of a nuclear facility and include, as appropriate for the work and the hazards identified in the documented safety analysis for the facility: Safety limits, operating limits, surveillance requirements, administrative and management controls, use and application provisions, and design features, as well as a bases appendix.” Regulatory requirements pertaining to TSRs are found in 10 CFR § 830.205.

DSA Section 3.3.1.2.4, *Selection of Controls*, states that “[i]f the Risk Class is still [‘High’ or ‘Moderate/High’] after application of preventive controls, then mitigative controls are credited for the public, co-located worker, and/or worker until a Risk Class [of ‘Moderate’ or ‘Low’] is achieved.”

DSA Table 4-20, *Safety-Significant Structures, Systems, and Components*, identifies the glovebox system as a safety-significant hazard control and describes an important safety function of the glovebox system: “The glovebox system provides primary confinement of [material at risk (MAR)] and provides a barrier against the release of radioactive material.” Table 4-20 also identifies the following performance criteria for the glovebox system: “The glovebox system maintains a primary confinement barrier during normal processing operations and during and after abnormal events including loss of the ventilation system, spills, and during and after a [Performance Category]-2 seismic event.”

Contrary to these requirements, Triad failed to properly derive hazard controls or perform work in accordance with appropriate hazard controls to ensure that the glovebox system provided primary confinement of MAR and a barrier against the release of radioactive material. Specific examples include:

1. Triad failed to identify that the failure of the pressure relief device (bubbler) and the bypass system could result in the glovebox losing the ability to perform its safety function (i.e., providing a barrier against the release of radioactive material). Consequently, Triad failed to identify the bubbler and bypass system as safety significant for this accident condition. Specifically, as it relates to the release event, when the glovebox was isolated from the tunnel system and Zone 1 facility ventilation by the misalignment of the bubbler and bypass system, the pressure transient caused by workers performing work in the glovebox (i.e., normal operations) was sufficient to cause radioactive material to be released from the glovebox through the sample port. Triad’s evaluation of the glovebox in DSA Section 4.4.8.4, *System Evaluation*, identifies that “[t]he glovebox system and associated ductwork are maintained at a negative pressure in relation to the laboratory during normal operations.” Triad failed to address maintenance of negative pressure components, which would have prevented the release event, in the TSRs.
2. The glovebox’s integrity and ability to function as a barrier against the release of MAR was degraded because of a gasket leak from the unused sample port on the bottom of the glovebox. A similar scenario was postulated in the DSA Hazard Evaluation Table for Event CAMO-3-003. This scenario postulates a small breach in the glovebox that results in an airborne release of radioactive material into the room and identifies an unmitigated consequence to the facility worker of “Moderate” and a frequency of “Anticipated” with a corresponding risk of “Moderate/High.” The sole control credited for risk reduction to the facility worker for this event is the PF-4 ventilation system, which is credited to maintain “air flow away from worker.” However, because the ability of the bubbler and the bypass system to provide a continuous connection to Zone 1 ventilation was not identified or controlled as a safety-significant SSC for this specific accident condition (as discussed in Section I.A.1, above), the connection to Zone 1 ventilation failed. Zone 2 ventilation was also ineffective at directing the airflow away from the facility worker, as identified in

the *Incident Review of the January 7, 2022, Contamination Event at the Los Alamos National Laboratory for Lessons Learned*, dated May 20, 2022. This document identified that the fixed air sampler (FAS) in the facility worker's breathing zone indicated potential doses above regulatory annual dose limits (i.e., greater than 5 rem total effective dose; see 10 CFR § 835.202(a)(1)) and that subsequent smoke testing "confirmed that material would flow from [the leaking gasket] consistent with the...FAS results." DSA Table 3-6, *Worker Consequence Definitions*, identifies that "Low" consequences to the facility worker are consistent with "no work restriction," whereas "Moderate" consequences are consistent with a "work restriction." As exceeding the regulatory dose limits would result in work restrictions (i.e., the inability to perform work in radiation areas), the event revealed that the mitigated consequences and the associated Risk Class postulated in CAMO-3-003 (i.e., "Low" consequence and "Moderate" risk) were not bounding or "reasonably conservative" as identified in DSA Section ES.6, *Safety Analysis Conclusions*.

Collectively, these noncompliances constitute a Severity Level II violation.

Base Civil Penalty – \$123,500

Mitigated Civil Penalty (prior to adjustment for fee reduction) – \$123,500

Proposed Civil Penalty (as adjusted) – \$0

## **B. Unreviewed Safety Question Process**

Title 10 CFR § 830.203, *Unreviewed safety question process*, Subsection (a), requires contractors responsible for a Hazard Category 1, 2, or 3 DOE nuclear facilities to "establish, implement, and take actions consistent with a DOE-approved USQ procedure that meets the requirements" of 10 CFR § 830.203. Subsection (c)(4) requires contractors responsible for a Hazard Category 1, 2, or 3 DOE nuclear facility to implement the DOE-approved USQ procedure in situations where there is a "[p]otential inadequacy of the documented safety analysis [PISA] because the analysis may not be bounding or may be otherwise inadequate."

Triad implements this requirement through its DOE-approved USQ procedures, SBP-112-3-R5.3, *Unreviewed Safety Question (USQ) Process*, dated November 1, 2021, which provides requirements and guidelines for implementing the USQ process at LANL nuclear facilities in accordance with 10 CFR § 830.203. SBP-112-3-R5.3 defines a PISA as a "condition in which the safety basis may be inadequate or the physical condition may not be accurate because the [DSA] may not match the current physical configuration of the facility, or the safety analysis may be inappropriate, inadequate, or contain errors." Section 4.7, *New Information/Initial Confirmatory (NI/IC) Process*, states that "[t]he NI/IC process is used to initially review and disposition conditions that may indicate a [PISA]," and that "the NI/IC process is associated with the USQ process because its outcome may create an entry condition." Section 4.7 also states that "LANL allows 9 working days to complete an NI/IC." Section 4.8.3, *Receipt of New Information*, states that "[a] PISA may arise from any new information," including "an operational event or incident." Section 4.8.4, *PISA Actions*, states that "the following actions, in sequence, must be taken upon identification of a PISA:

1. Take action, as appropriate, to place or maintain the facility in a safe condition;

2. Notify DOE/NNSA of the situation;
3. Perform a USQ determination (USQD) and notify DOE/NNSA promptly of the results;
4. Submit an [evaluation of safety of the situation (ESS)] to DOE/NNSA (prior to removing any operational restrictions).”

Section 4.8.4 of SBP-112-3-R5.3 further states that “[a] USQD must be prepared for all PISAs, retroactively, as if the identified condition were a proposed activity.” Section 4.8.4 also states, “The USQD must be completed and submitted to DOE (email is adequate) within 11 working days following the day of PISA declaration unless an extension is approved by DOE.”

Triad also addresses these specific requirements in PA-AP-01141, R2, *Implementation of the LANL USQ Process at FOD-1 Nuclear Facilities*, dated February 12, 2021. PA-AP-01141, R2, Section 4.1.3, *Required Information/Paperwork for PISAs*, states that “[t]he LANL Occurrence Reporting and Processing System (ORPS) entry provides the information required for documenting a PISA and does not require a DAR [document action request form] or Attachment A. Due to the rush nature of a PISA, it is acceptable to assign a USQ evaluation number in SharePoint prior to receiving a copy of the occurrence report.”

Contrary to these requirements, Triad failed to implement its DOE-approved USQ procedure in a situation where there was a PISA because the documented safety analysis was potentially not bounding or was otherwise inadequate. Specific examples include:

1. Triad failed to implement the DOE-approved USQ procedure or prepare a PISA in a timely manner after the January 2022 glovebox breach and subsequent worker exposure to radioactive material. At the time of the event and based on field indicators, there was enough data and information to conclude that the ventilation systems relied on for protection of workers failed; the glove box failed in its primary safety function (i.e., containment of radioactive materials from work areas). As a result of these failures, radiological monitoring field indicators suggested that a worker had been exposed to a significant radiological release and subsequent internal dose, that exceeded what was postulated in the DSA (as discussed in Section I.A.2, above).
2. Triad prepared a *PISA Evaluation Form*, dated April 18, 2023, (466 days after the event) in response to concerns raised by the Office of Enforcement during the investigation, which concluded that the “TA-55 DSA hazard analysis is bounding of this Event.”

Collectively, these noncompliances constitute a Severity Level II violation.

Base Civil Penalty – \$123,500

Mitigated Civil Penalty (prior to adjustment for fee reduction) – \$123,500

Proposed Civil Penalty (as adjusted) – \$0

### C. Quality Improvement

Title 10 CFR § 830.121, *Quality Assurance Program (QAP)*, Subsection (b), states that “[t]he contractor responsible for a DOE nuclear facility must: ... (4) [c]onduct work in accordance with the QAP.”

Title 10 CFR § 830.122I, *Criterion 3—Management/Quality Improvement*, requires that a contractor’s QAP “(1) [e]stablish and implement processes to detect and prevent quality problems[;] (2) [i]dentify, control, and correct items, services, and processes that do not meet established requirements[; and] (3) [i]dentify the causes of problems and work to prevent recurrence as part of correcting the problem.”

Triad implements Criterion 3 and other quality assurance criteria through its QAP, SD330, R12, *Los Alamos National Laboratory Quality Assurance Program*, dated June 22, 2021. Specifically, Triad implements Criterion 3 through QAP Section 3.1.1.c, *Quality Criterion 3 Management/Quality Improvement*, which states, “Triad implements processes for quality improvement. Items, services, and processes that do not meet established requirements are identified, controlled, and corrected. Corrective action planning includes identification of the causes of problems and prevention of recurrence. Item characteristic, process implementation, and other quality information to identify items, services, and processes needing improvement are reviewed.”

Contrary to these requirements, Triad failed to appropriately implement a process for quality improvement and failed to identify the causes of problems or remove unnecessary appurtenances (sample port) and control glovebox auxiliary systems (e.g., pressure relief device, solenoid bypass and manual bypass valves) in a timely manner to prevent recurrence. Specific examples include:

1. Triad failed to identify, control, and correct items, as evidenced by the fact that Triad failed to remove unused equipment, such as unnecessary appurtenances like the sample port in the glovebox, in a timely manner. Although in-service inspections of the glovebox systems are conducted every three years and glovebox system health reports are completed, these processes failed to identify or adequately disposition unused appurtenances in the gloveboxes. These factors impacted Triad’s ability to provide confinement of MAR leading up to the January 2022 event.
2. Triad failed to identify the causes of problems or work to prevent recurrence, as evidenced by the many similarities between a March 2000 event and the January 2022 event. On March 16, 2000, there was a release of airborne contamination due to deficiencies in glovebox auxiliary equipment. An NNSA incident review team identified several justifications of need that also relate to the January 2022 event. Specifically, one of the justifications of need stated that “LANL needs to ensure that TA-55 has an effective means of controlling the configuration of glovebox auxiliary systems. This should include establishing a program to compile and maintain as-built design specifications and drawings, establishing requirements for mechanical and electrical system configuration, defining normal or expected valve and component line-ups, and labeling valves and components.” However, there is no documentation



to demonstrate that these corrective actions were implemented and sustained to prevent workers from being exposed to a release of airborne contamination caused by inadequate configuration control of glovebox auxiliary systems. Had the corrective actions from the March 2000 event been adequately implemented, the January 2022 event would have been averted.

Collectively, these noncompliances constitute a Severity Level II violation.

Base Civil Penalty – \$123,500

Mitigated Civil Penalty (prior to adjustment for fee reduction) – \$123,500

Proposed Civil Penalty (as adjusted) – \$0

#### **D. Work Processes and Performance**

Title 10 CFR § 830.122(e), *Criterion 5—Performance/Work Processes*, requires, at Subsection (1), contractors to “[p]erform work consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means.”

Triad addresses Criterion 5 in QAP Section 3.1.1.e, *Quality Criterion 5 Performance/Work Processes*, which states that implementing documents “are the core elements for Triad workers to perform work consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements using approved instructions, procedures, or other appropriate means.”

Triad also addresses requirements for implementing work processes in P315, *Conduct of Operations Manual*, revision 7, dated April 1, 2020. In Attachment 1, *Operations Organization and Administration*, Section 1.4, *Principles of Conservative Operation*, Triad requires that “activities must be conducted...following approved procedures and in accordance with institutional safety and administrative programs.”

Contrary to these requirements and other approved instructions and procedures, Triad failed to properly implement a work process to maintain the glovebox’s confinement safety function or control worker exposure to the radioactive material and unplanned dose from release of radioactive contamination. Specific examples include:

1. Triad failed to identify and control glovebox system items to ensure their proper use, as evidenced by the lack of control of glovebox auxiliary systems, including the pressure relief device and solenoid bypass and manual bypass valves. There was no documented control of specific auxiliary systems (pressure relief device and solenoid bypass and manual bypass valves) status or as-built configuration for each glovebox. Additionally, there was no documented control of the glovebox modifications with respect to a sample port in the floor. This port, or the associated cutout, was not specified on the glovebox drawings or in records to ensure its traceability.
2. The gloveboxes in question were not configured to operate in any of the defined or analyzed glovebox modes (either as inert or normal air). The gloveboxes had the engineered components to allow for operation as an inert gas flush glovebox with a bypass; however, the precise details of the working configuration were neither

understood nor controlled as specified in the system design description or maintenance procedures.

Collectively, these noncompliances constitute a Severity Level II violation.

Base Civil Penalty – \$123,500

Mitigated Civil Penalty (prior to adjustment for fee reduction) – \$123,500

Proposed Civil Penalty (as adjusted) – \$0

### **E. Occupational Radiation Protection Requirements**

Title 10 CFR Part 835, Subpart K, *Design and Control*, contains requirements to protect against radiation, as listed below.

Title 10 CFR § 835.1001, *Design and control*, Subsection (a), requires that “[m]easures shall be taken to maintain radiation exposure in controlled [areas as low as reasonably achievable (ALARA)] through engineered and administrative controls. The primary methods used shall be physical design features (e.g., confinement, ventilation, remote handling, and shielding). Administrative controls shall be employed only as supplemental methods to control radiation exposure.”

Title 10 CFR § 835.1002, *Facility design and modifications*, Subsection (c), requires that, “[r]egarding the control of airborne radioactive material, the design objective shall be, under normal conditions, to avoid releases to the workplace atmosphere and in any situation, to control the inhalation of such material by workers to levels that are ALARA; confinement and ventilation shall normally be used.”

Triad implements these requirements through Triad P121, *Radiation Protection*, Revision 6, dated June 21, 2019, which describes LANL’s implementing commitments, as listed below.

P121 Article 1222, *Design Objectives and Requirements*, Section 2, states that “[m]easures must be taken to maintain radiation exposure in controlled areas ALARA through engineered and administrative controls [see 835.1001(a)]:

- a. The primary methods used must be engineered controls (for example, confinement, ventilation, remote handling, and shielding) [see 835.1001(a)]
- b. Administrative controls must be employed only as supplemental methods to control radiation exposure [see 835.1001(a)] (many engineered controls require supplemental administrative controls to be effective, such as inspection, maintenance, and training).”

P121 Article 1222.6 states, “Under normal conditions, the design must ensure that the release of airborne radioactive material to the workplace atmosphere is avoided, and in any situation, the design must control the inhalation of such material by workers to levels that are ALARA. Confinement and ventilation are the primary means to accomplish this design objective [see 835.1002(c)].”

Contrary to these requirements, Triad failed to implement controls to prevent releases to the workplace atmosphere or control the inhalation of such materials by workers. Specific examples include:

1. Triad failed to ensure adequate glovebox and ventilation confinement to avoid radioactive material from being released into the workplace environment. The gloveboxes had been modified and converted for specific operations; however, these changes were not sufficiently reviewed, understood, or documented, resulting in an inadequate confinement system and inadequate maintenance of that system. At the time of the release event, the configuration did not match the description of a normal air glovebox, contrary to the system design description and maintenance procedures. In this configuration, the glovebox relied on (but did not have) an uninterrupted connection to the glovebox trolley tunnel for supply air.
2. The Triad maintenance program's procedures and training were inadequate to identify and correct equipment deficiencies. Routine checks, including system health assessments and monthly preventive maintenance, did not uncover or document significant problems in glovebox ventilation. Because the gloveboxes were isolated from the ventilation in the trolley system, these systems were vulnerable to failure. Due to the glovebox configuration, the maintenance procedure for balancing the system could not be followed as written. These factors contributed to the release of radioactive material.

Collectively, these noncompliances constitute a Severity Level II violation.

Base Civil Penalty – \$123,500

Mitigated Civil Penalty (prior to adjustment for fee reduction) – \$123,500

Proposed Civil Penalty (as adjusted) – \$0

## II. REPLY

Pursuant to 10 CFR § 820.24(b), Triad is hereby obligated to submit a written reply within 30 calendar days after the date of filing of this PNOV. The reply should be clearly marked as a "Reply to the Preliminary Notice of Violation" and must be signed by the person filing it.

If Triad's reply specifically states that Triad waives any right to contest this PNOV, then pursuant to 10 CFR § 820.24(d), this PNOV will constitute a Final Order upon the filing of the reply.

If Triad disagrees with any aspect of this PNOV, then, as applicable and in accordance with 10 CFR § 820.24(c), the reply must contain a statement: (1) of all relevant facts pertaining to the situation that is the subject of this PNOV; and (2) any facts, explanations and arguments which support a denial that a violation has occurred as alleged. The reply is also required to include a discussion of the relevant authorities that support the position asserted, including rulings, regulations, interpretations, and previous decisions issued by DOE. In addition, 10 CFR § 820.24(c) requires that the reply include copies of all relevant documents.

Please email your reply to the Office of Enforcement Director at [enforcementdocketclerk@hq.doe.gov](mailto:enforcementdocketclerk@hq.doe.gov).

A copy of the reply should also be sent to my office and the Manager of the NNSA Los Alamos Field Office.

Pursuant to 10 CFR § 820.33, *Default order*, Subsection (a), if Triad fails to submit a written reply within 30 calendar days after the date of filing of this PNOV, the NNSA Administrator may pursue a Default Order.

### III. CORRECTIVE ACTIONS

Corrective actions that have been or will be taken to avoid further violations should be delineated with target and completion dates in DOE's Noncompliance Tracking System.



Jill Hruby  
Under Secretary for Nuclear Security  
Administrator, NNSA

Washington, D.C.  
This 11 day of October 2023