



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



October 6, 2022

Mr. Lennie Upshaw
General Manager
Centerra-Los Alamos
Los Alamos National Laboratory
P.O. Box 1663, MS G724
Los Alamos, New Mexico 87545

WEA-2022-02 (Final Notice of Violation)

Dear Mr. Upshaw:

Pursuant to Section 234C of the Atomic Energy Act, as amended, 42 U.S.C. § 2282c, and Department of Energy (DOE) regulations in 10 C.F.R. Part 851, *Worker Safety and Health Program*, DOE's National Nuclear Security Administration (DOE/NNSA) is issuing this Final Notice of Violation (FNOV) to Centerra-Los Alamos (CLA) for violations of DOE's worker safety and health requirements. The FNOV is based on the DOE Office of Enforcement's August 18, 2021, investigation report and a thorough review of all evidence presented to DOE/NNSA by CLA, including CLA's *Report of Inquiry of the Firearms Near Miss Event*; the Triad National Security, LLC (Triad) *TA-72 Live Fire Range Near Miss Independent Root Cause Analysis Final Report (Independent RCA Final Report)*; the corrective actions; and CLA's July 7, 2022, reply to the Preliminary Notice of Violation (PNOV), which was issued by DOE/NNSA on June 8, 2022.

CLA's response to the PNOV contested both Severity Level I violations including the characterizations, classifications, and proposed civil penalty amounts. CLA requested that DOE/NNSA either withdraw the alleged violations or reclassify the violations as Severity Level II with a significant penalty reduction by considering the analogous civil penalty structure of the Occupational Safety and Administration (OSHA).

CLA asserted that the June 1, 2020, event was not a "near miss" event, in part because the Triad Institutional Quality and Performance Assurance root cause investigator found that the event was not a near miss as defined in DOE Order 232.2A, *Occurrence Reporting and Processing of Operations Information*, and because, according to CLA, "the CLA range master [was never] at risk of a serious injury or fatality while the utility tractor was being moved downrange of the firing line" because the intermediate berm was designed and built in accordance with the U.S. Army Corps of Engineers (USACE) drawings, which

were intended to prevent ammunition up to 25 millimeters (mm) from penetrating the berm, and 5.56 mm frangible ammunition was used on live fire range one. Consequently, it is CLA's position that happenstance was not the main reason the event did not result in a reportable injury, but rather, because the range master was protected by the berm when the M4 was test-fired on live fire range one.

CLA also stated that it had developed and implemented safe and effective range control processes for conducting live fire range operations, and that Triad and the Officially Designated Federal Security Authority (ODFSA) had approved those processes. According to CLA, its written procedures more than adequately addressed the firearms safety, engineering, administrative controls, and personal protective requirements applicable at the live fire range. It is CLA's position that, if workers had properly followed these processes on the day of the event, there would not have been an event. CLA also asserts that it conducted a safety briefing and hazard assessment before the training course began.

CLA's reply stated that it had adequately identified and assessed the hazards related to the physical modification of the intermediate berm on live fire range one. CLA contends that, while CLA did not conduct its own study or evaluation of the operational impact of the intermediate berm, CLA was aware that the berm would effectively render "live fire" safety concerns moot for anything on the other side of the berm. Additionally, CLA referenced an USACE *Range Assessment and Recommendations Report* (October 2018), noting that it identified only two concerns.

In addition, CLA maintained that at no point did it fail to train its employees on the requirements of the applicable firearms safety program and the standard operating procedures applicable to the live fire range. CLA stated that it has developed and implemented a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards receive training and information on those hazards, so they can perform their duties in a safe and healthful manner. Furthermore, CLA also stated that all CLA security police officers are certified, meaning they have received the firearms training and qualifications set forth in 10 C.F.R. Part 1046, *Medical, Physical Readiness, Training, and Access Authorization Standards for Protective Force Personnel*, and DOE Order 473.3A, *Protection Program Operations*.

It is CLA's position that the utility tractor is not a powered industrial truck and that although it does not provide a training certification class on its use, it does ensure that employees are informed of the hazards associated with operating the equipment and how to operate the equipment in accordance with manufacturers' recommendations.

Lastly, CLA asserted it is being unjustly penalized for self-reporting and for advocating for safety improvements at the live fire range.

DOE/NNSA has thoroughly evaluated CLA's response and disagrees with CLA's conclusions regarding the characterizations, classifications, and proposed civil penalty amounts for the two Severity Level 1 violations, as discussed below.

In regard to whether the live fire event was a near miss event, although DOE/NNSA disagrees with CLA's position on this point, whether or not the live fire event meets the reporting criteria of a "near miss"¹ under DOE Order 232.2A Chg 1, *Occurrence Reporting and Processing of Operations Information*, is not relevant to this enforcement action.

DOE/NNSA recognizes that the design of the intermediate berm significantly decreased the likelihood of death or serious physical harm to workers at the site; however, the berm design does not preclude the requirement for CLA to use a disciplined approach for range control when operating the live fire range complex. Additionally, during the investigative process DOE noted degradation to the intermediate berm that could affect the performance of the system. Furthermore, during interviews, CLA personnel revealed that CLA was unaware of the intermediate berm's capabilities and did not use it as a final impact berm.² Lastly, two witnesses to the event reported seeing impacts on the final impact berm associated with the test firing of the M4 carbine on live fire range one. DOE/NNSA notes that CLA took issue with these witness statements but did not provide persuasive evidence that the ammunition was contained by the intermediate berm on the day of the event.

DOE/NNSA concurs with CLA that range instructors were using frangible ammunition on live fire range one at the time of the event. However, DOE/NNSA determined that range instructors used frangible ammunition as a "best practice," not a requirement, to minimize the risk of introducing ball ammunition into the live fire shoot house, which was going to be used later that day. CLA did not provide objective evidence that ball ammunition was prohibited on live fire range one at the time of the event.³

DOE/NNSA found that the CLA live fire range safety protocols/procedures were not adequate because they did not address all safety aspects of firearms use or all

¹ DOE Order 232.2A Chg 1, Reporting Criteria, Group 10 – *Management Concerns and Issues*, #2 describes a near miss to an injury, where something physically happened that was unexpected or unintended AND where no barrier prevented an event from having a reportable consequence (i.e., happenstance was the main reason the event did not result in a reportable injury).

² See CLA's, *Live Fire Range/Indoor Fire Range Safety Assessment*, dated June 25, 2019, which describes that live fire range one has an "intermittent" berm to prevent any bullet impacts into the storm waterway and specifies that the northern boundary for live fire range one is the canyon wall. Also see USACE report titled *Los Alamos TA-72 Range Assessment*, dated October 2018, which provides that the surface danger zone for live fire range one extends beyond the intermediate berm to the canyon wall which functions as the final impact berm.

³ See CLA documents, *Live Fire Range/Indoor Firing Range Safety Assessment*, dated June 25, 2019, *Hazard Identification and Mitigation Plan*, dated March 17, 2020, and *Firearms Program Standard Operating Procedure*, dated January 13, 2020, which do not prohibit the use of ball ammunition on live fire range one.

scenarios in which an injury could result from firearms use. This finding was supported by the *Independent RCA Final Report*,⁴ which found that: (1) the formality of range operations at the live fire range was less than adequate; (2) there was an inability to communicate with all range staff at all times; (3) work controls in place were inadequate to prevent workers from going downrange during live fire activities; and (4) there was no formal procedure for restarting live fire for atypical events, such as test firing of repaired weapons. Noncompliance Tracking System (NTS) report number NTS-NA-LAFOTRIADFIRNG-HELAB2020-0010041, identified noncompliances with 10 C.F.R. § 851.20(b) *Management responsibilities*, which requires workers to comply with the approved worker safety and health program (WSHP) at the workplace; a need to improve procedures; and found noncompliances with 10 C.F.R. Part 851, appendix A, § 5, *Firearms Safety*, subsection (a), because the established firearms safety policy and procedure did not ensure proper accident prevention controls protected workers from entering an active range.

DOE/NNSA did consider that Triad and the ODFSA approved the referenced CLA firearms safety procedures, but those approvals do not obviate CLA's responsibility to develop and implement adequate firearms safety procedures, processes, and work controls. However, when considering DOE/NNSA's "per day" civil penalty authority,⁵ DOE/NNSA determined it would not be appropriate to assess CLA a civil penalty for the entire duration of the violations in this case, in part because of Triad's and the ODFSA's approvals.

Regarding CLA's safety briefing/hazard assessment before the training course, DOE/NNSA found that CLA failed to conduct a daily briefing for its workers that, specifically addressed the hazards and mitigating controls for the work to be performed that day, as required by Triad and CLA.⁶ Contrary to Triad and CLA requirements, CLA conducted the plan-of-the-day briefing for range operations three days before the live fire event, and not all required personnel were present; the briefing was given on May 29, 2020, for range operations that were conducted on June 1, 2020, and two range masters were not present for the briefing.

DOE/NNSA disagrees with CLA's assertion that CLA adequately identified and assessed the hazards related to the physical modification of the intermediate berm on live fire range one. None of the CLA range operating procedures or hazard

⁴ CLA supported the development of the *Independent RCA Final Report* and concurred with ten of the judgements of need identified in the report, and requested Triad's guidance on the remaining three judgements of need, as documented in CLA's written response to Triad, dated August 11, 2020, subject: *Response to Institutional Quality and Performance Assurance Submittal of the Independent Root Cause Analysis Final Report*.

⁵ See 10 C.F.R. § 851.5(a) ("If any violation under this subsection is a continuing violation, each day of the violation shall constitute a separate violation for the purpose of computing the civil penalty").

⁶ See Triad document Exhibit F, *Environmental Safety & Health (ES&H) Requirements* for Subcontract No. 269525, dated December 12, 2018, and CLA's *Firearms Program Standard Operating Procedure*, dated January 23, 2020.

identification and mitigation documents identified, assessed, or controlled the blind spot behind the intermediate berm on live fire range one. The USACE did not complete a range assessment to determine whether the live fire ranges conformed to applicable surface danger zone criteria and range feature parameters, as defined in the *DOE Range Design Criteria* document. However, the *USACE Range Assessment and Recommendations Report* (October 2018) specifies that the live fire range one surface danger zone was generated with the best understanding of the requirements defined in the *DOE Range Design Criteria* document and that range personnel who are more familiar with DOE surface danger zone criteria would need to validate the USACE assessment. DOE/NNSA determined the USACE range assessment did not fully meet the requirements of 10 C.F.R. § 851.21(a)(4) *Hazard identification and assessment*, which requires contractors to analyze modifications to existing facilities and equipment for potential workplace hazards. DOE/NNSA also found that CLA was responsible for analyzing modifications to the live fire ranges for potential workplace hazards.

DOE/NNSA recognizes that all CLA security police officers were certified and received the firearms training and qualifications set forth in 10 C.F.R. Part 1046 and DOE Order 473.3A. However, DOE/NNSA identified a regulatory violation in that CLA failed to develop a utility tractor operator training program meeting 10 C.F.R. § 851.25 requirements for a training and information program. Although, DOE/NNSA concurs with CLA's determination that the utility tractor is not a powered industrial truck, 10 C.F.R. § 851.25 requires contractors to develop and implement a training and information program to ensure that all workers exposed or potentially exposed to hazards receive training and information on those hazards, to perform their duties in a safe and healthful manner. CLA did not provide objective evidence that employees were informed of the hazards associated with operating the utility tractor. Rather, CLA recognized the need for a formal utility tractor operator training program that covered safety, operation, towing, plowing, and use of tractor implements. Furthermore, DOE/NNSA found that CLA failed to operate the utility tractor in accordance with the manufacturer's recommendations and failed to require a worker to complete instructor on-the-job training or obtain written approval from the Training Manager as required by the approved firearms program standard operating procedure.

Additionally, DOE/NNSA disagrees that CLA is being unjustly penalized for self-reporting and for advocating for safety improvements at the live fire range. DOE/NNSA considered CLA's self-reporting of the event into the NTS when determining the appropriate civil penalty. DOE/NNSA may reduce the base civil penalty up to 50 percent if the contractor identified and promptly reported the violation. DOE/NNSA determined that it would not be appropriate to reduce the base civil penalty for violations revealed by the live fire event because it was a "self-disclosing" event. DOE/NNSA desires contractors to self-identify problems before they lead to an event with actual or potential safety consequences, primarily through excellence in performance assessment programs. However,

DOE/NNSA did grant a 50 percent reduction in the base civil penalties for CLA's prompt, comprehensive, and effective corrective actions.

DOE/NNSA also considered CLA's requests to the Los Alamos National Laboratory management and operating (M&O) contractors in 2017 and 2019, which identified safety concerns and suggested improvements to the live fire ranges, which could have prevented the live fire event. DOE/NNSA noted that neither M&O contractor took any action in response to CLA's request. However, DOE/NNSA determined that this lack of action did not negate CLA's responsibility to ensure that hazards are prevented or abated in a timely manner. The investigation revealed that Triad provided CLA with a budget to perform minor improvements to CLA facilities, as illustrated by the fact that after the event, CLA used the funding to install a LFR status board at the main entrance and individual range flag pole systems on each LFR, and add physical barriers and signage to mitigate hazards.

It would not be appropriate for DOE/NNSA to further modify the civil penalties based on the OSHA civil penalty structure as CLA requested. Civil penalties for violations of DOE worker safety and health requirements are based on the amounts established by law that are in effect at the time of the noncompliances, as provided in the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (Public Law 107-314) and adjusted, as required by Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015.

DOE/NNSA categorized the severity of the combined management responsibilities and firearms safety violations as a serious violation since there was the potential that death or serious physical harm could have resulted from the conditions that existed at the time of the event, including inadequate range control processes for live fire ranges, ineffective communication methods, and noncompliance with the approved WSHP for the workplace. Additionally, DOE/NNSA aggregated the regulatory violations associated with hazard identification, assessment, prevention and abatement, and training and information into one Severity Level I violation. While the violations may have minor safety significance individually, the PNOV highlighted broader programmatic issues in CLA's hazard identification, assessment, prevention and abatement, and training and information programs.

For the reasons discussed above, DOE/NNSA did not revise the PNOV before inclusion in the FNOV.

Pursuant to 10 C.F.R. § 851.44, CLA may petition DOE's Office of Hearing and Appeals for review of the enclosed FNOV. CLA's petition must adhere to the procedural requirements established in Subpart G of 10 C.F.R. Part 1003, *Office*

*of Hearings and Appeals Procedural Regulations.*⁷ If CLA does not petition the Office of Hearings and Appeals within 30 calendar days of receipt of this FNOV, CLA relinquishes any right to appeal any matter raised therein, and the FNOV will become a final order as provided by 10 C.F.R. § 851.43(c).

Sincerely,



Jill Hruby

Enclosure: Final Notice of Violation (WEA-2022-02)

cc: Theodore Wyka, NA-LA
Venessa Chavez, Triad National Security, LLC

⁷ Given that 10 C.F.R. § 1003, Subpart G, §§ 1003.70, et seq. no longer applies pursuant to 10 C.F.R. § 1003.1(b), CLA's petition must conform with the procedural requirements set forth in 10 C.F.R. Part 1003.1, et seq.

Final Notice of Violation

Centerra-Los Alamos
Los Alamos National Laboratory

WEA-2022-02

The U.S. Department of Energy (DOE) Office of Enterprise Assessments' Office of Enforcement conducted an investigation into the facts and circumstances associated with a June 1, 2020, event on a live fire range (LFR) at the National Nuclear Security Administration (DOE/NNSA) Los Alamos National Laboratory (LANL). The event involved a worker who was moving a utility tractor downrange of the firing line during the firing of live 5.56 millimeter (mm) frangible ammunition. The investigation revealed multiple violations of DOE worker safety and health requirements by Centerra-Los Alamos (CLA).

DOE provided CLA with an investigation report dated August 18, 2021, and convened an enforcement conference on October 13, 2021, with CLA representatives to discuss the report's findings and CLA's response. DOE/NNSA issued a Preliminary Notice of Violation (PNOV) WEA-2022-02 on June 8, 2022. In a July 7, 2022, reply, CLA contested both Severity Level I violations, including the characterizations, classifications, and proposed civil penalty amounts. DOE/NNSA thoroughly evaluated CLA's response and disagrees with CLA's conclusions regarding the characterizations, classifications, and proposed civil penalty amounts for the two Severity Level I violations and the Final Notice of Violation (FNOV) is consistent with the PNOV issued in June 2022.

Pursuant to Section 234C of the Atomic Energy Act of 1954, as amended, and DOE regulations set forth at 10 C.F.R. Part 851 (Part 851), *Worker Safety and Health Program*, DOE/NNSA hereby issues this FNOV to CLA. The violations cited in this FNOV include deficiencies in: (1) management responsibilities and firearms safety; and (2) hazard identification, assessment, prevention and abatement, and training and information. DOE/NNSA has grouped and categorized these deficiencies as two Severity Level I violations.

Severity Levels are explained in Part 851, appendix B, *General Statement of Enforcement Policy*. Subparagraph VI(b)(1) states that "[a] Severity Level I violation is a serious violation. A serious violation shall be deemed to exist in a place of employment if there is a potential that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment."

In consideration of the mitigating factors, DOE/NNSA imposes a total civil penalty of \$106,000 for the two Severity Level I violations cited in this FNOV.

As required by 10 C.F.R. § 851.43(b) and consistent with Part 851, appendix B, the violations are listed below.

I. VIOLATIONS

A. Management Responsibilities and Firearms Safety

Title 10 C.F.R. § 851.10, *General requirements*, subsection (a), states that “[w]ith respect to a covered workplace for which a contractor is responsible, the contractor must: (1) [p]rovide a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers; and (2) [e]nsure that work is performed in accordance with: (i) [a]ll applicable requirements of [10 C.F.R. Part 851]; and (ii) [t]he worker safety and health program for that workplace.”

Title 10 C.F.R. § 851.20, *Management responsibilities and worker rights and responsibilities*, subsection (a), states that “[c]ontractors are responsible for the safety and health of their workforce and must ensure that contractor management at a covered workplace: (1) [e]stablish written policy, goals, and objectives for the worker safety and health program....”

Title 10 C.F.R. § 851.24, *Functional areas*, subsection (b), states that “[i]n implementing the structured approach required by paragraph (a) of this section contractors must comply with the applicable standards and provisions in appendix A, of this part, entitled “Worker Safety and Health Functional Areas.” Appendix A of Part 851, section 5, *Firearms Safety*, subsection (a), states that “[a] contractor engaged in DOE activities involving the use of firearms must establish firearms safety policies and procedures for security operations, and training to ensure proper accident prevention controls are in place. (1) Written procedures must address firearms safety, engineering and administrative controls....”

Triad National Security, LLC (Triad) document PD-100, *DOE/NNSA Approved LANL 10 CFR 851 Worker Safety and Health Program (WSHP) Description*, revision 4, February 21, 2019, section 2.2, *Applicability*, states that “[t]his document applies to all Laboratory workers. This includes subcontractor employees and lower-tier subcontractor personnel....” Section 4.9, states that LANL responsible line management and subcontractor management “[e]nsures adherence to applicable workplace safety and health requirements, including the methods for implementing those requirements.”

Triad document Exhibit F, *Environmental Safety & Health (ES&H) Requirements* for Subcontract No. 269525, revision 2, December 12, 2018, section F8.4, states that the “[s]ubcontractor shall provide a daily briefing for its workers which specifically addresses the hazards and mitigating controls for work to be performed that day.” Section F56.0, *Firearms Safety*, paragraph 56.1, states that “[s]ubcontractors engaged in DOE activities involving the use of firearms must establish firearms safety policies and procedures for security operations and training to ensure proper accident prevention controls are in place. Subcontractor’s written procedures must address firearms safety, engineering, and administrative controls....” Paragraph 56.13 states that “[s]ubcontractor policies and procedures must address all safety aspects of firearms use and all scenarios in which an injury could occur as the result of firearms use....”

CLA document SP220-02, *Firearms Program Standard Operating Procedure (SOP)*, revision 4, January 23, 2020, chapter I, section 4.0, *Responsibilities*, paragraph 4.2, states that the training manager “[e]nsures this procedure is in compliance with all requirements.” Paragraph 4.8, states that the lead instructor/officer in charge “[c]onducts daily plan-of-the-day with rangemasters and assistant instructors.” Section 8.0, *Conducting Live Fire Activities*, paragraph 8.3, states that “[t]raining radios/radio headsets provide on-range control and coordination between range personnel.” Section 28.0, *Scheduled Activities*, states that “[a]ny deviations to the initial briefing will be coordinated through the [l]ead [i]nstructor.” Chapter II, *Live Fire Range*, section 11.0, *LFR Activation*, paragraph 11.2, *Range Sweep Prior to Live Fire Operations*, states that “[t]raining staff will conduct a physical check of all impact areas and physical safety barriers to ensure they are clear of unauthorized personnel or hazards....”

CLA document SP320-01, *General Safety-Facility Safety Program*, revision 3, November 14, 2019, section 3.0, *Responsibilities*, paragraph 3.3.3, states that managers “[e]nsure personnel under their supervision understand and follow the requirements of the program and supporting procedures.”

CLA document SP320-02, *Firearms Safety Program*, revision 3, April 22, 2020, section 3.0, *Responsibilities*, paragraph 3.8.1, states that all managers, supervisors, and team leaders “[e]nsure personnel adhere to all provisions of 10 C.F.R. 851, DOE O 473.3A, and [c]ompany firearms policies and procedures and ES&H requirements.”

CLA document *Live Fire Range/Indoor Fire Range Hazard Identification Mitigation Plan*, March 17, 2020, section L, *Firearms*, states that “range personnel will maintain and account for all personnel in the range area during live fire activities....”

Contrary to the above requirements, CLA failed to comply with applicable requirements of Part 851 and the approved WSHP for the workplace. Specific examples include:

1. CLA failed to develop or implement safe and effective range control processes for conducting LFR operations that addressed all safety aspects of firearms use and all scenarios during which an injury could occur as the result of firearms use. Specifically, range control processes were inadequate to: (1) prevent workers from going downrange during live firing activities; (2) clear LFR surface danger zones of personnel or other hazards prior to re-starting live firing activities on a range that had not been physically monitored by workers; (3) re-start live firing activities outside of a training evolution; and (4) identify the operational status (active or inactive) of individual ranges within the LFR complex.
2. CLA failed to establish effective communication methods between range personnel during the conduct of LFR operations. Specifically, CLA did not require workers to wear a radio headset or to carry a hand-held radio for on-range control and coordination between workers. Additionally, the radio headset system in use by the training staff was not operating on a radio frequency compatible with the hand-held radios used by range maintenance staff. As a result, on the day of the event, the communication methods used

to re-start live fire activities were not effective for informing affected workers that live firing was about to begin.

3. CLA failed to conduct a plan-of-the-day briefing with all required personnel on the day of the event, as required by the CLA firearms safety program. CLA conducted the plan-of-the-day briefing for range operations three days before the live fire event, and not all required personnel were present; the briefing was given on May 29, 2020, for range operations that were conducted on June 1, 2020, and two range masters were not present for the briefing.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$106,000

Civil Penalty (with 50 percent reduction for CLA’s corrective actions) – \$53,000

B. Hazard Identification, Assessment, Prevention and Abatement, and Training and Information

Title 10 C.F.R. § 851.21, *Hazard identification and assessment*, subsection (a), states that “[c]ontractors must establish procedures to identify existing and potential workplace hazards and assess the risk of associated workers injury and illness. Paragraphs (a)(4) and (5) specify that procedures must include methods to: [a]nalyze designs of new facilities and modifications to existing facilities and equipment for potential workplace hazards; and [e]valuate operations, procedures and facilities to identify workplace hazards.”

Title 10 C.F.R. § 851.22, *Hazard prevention and abatement*, subsection (a), states that “[c]ontractors must establish and implement a hazard prevention and abatement process to ensure that all identified and potential hazards are prevented or abated in a timely manner.”

Title 10 C.F.R. § 851.25, *Training and information*, subsection (a), states that “[c]ontractors must develop and implement a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards are provided with the training and information on that hazard in order to perform their duties in a safe and healthful manner.”

Triad document PD 100, *DOE/NNSA Approved LANL 10 CFR 851 WSHP Description*, revision 4, February 21, 2019, section 3.1, *Hazards*, paragraph 3.1.1, states that “[f]unctional area programs and environment, safety and health (ES&H) processes must direct efforts towards:...[a]nalyzing designs of new facilities and modifications to existing facilities for potential workplace hazards, and [e]valuating operations, procedures, and facilities to identify workplace hazards.” Section 6.2, *Worker Safety and Health Training*, states that “[t]he Laboratory takes a multi-pronged approach to ensure all workers who are exposed or potentially exposed to hazards are provided with training and information in order to perform their duties in a safe and healthful manner....”

CLA document SP320-16, *Hazard Identification and Mitigation Plan (HIMP)*, revision 3, September 25, 2019, section 2.0, *Scope*, paragraph 2.1.1, states that the integrated work

management implementation process “is intended to assure that [p]otential safety and security hazards are systematically identified; [r]easonable measures to abate or mitigate the hazards are implemented; and [h]azards and controls are evaluated continuously during the course of work to ensure conditions have not changed since the start of work.”

CLA document SP220-02, *Firearms Program SOP*, revision 4, January 23, 2020, chapter I, section 25.0, *Kubota Tractor*, states that “[t]he tractor will be used as necessary for programmatic work and must be operated in accordance with the owner’s manual. Only personnel that are familiar with the proper operation and have completed the instructor [on-the-job-training] or have written approval by the [t]raining [m]anager are authorized to operate the tractor and implements.” Kubota Utility Tractor Manual, *Operator’s Manual – Models M6040, M7040, M8540, M9540* (dated 2006) *Safe Operation*, states that “[t]o avoid personal injury: (1) [a]ttach pulled or towed loads to the drawbar only; (2) [u]se the 3-point hitch only with equipment designed for 3-point hitch usage.”

Contrary to the above requirements, CLA failed to adequately identify, assess, prevent or abate hazards related to a physical modification to a LFR. Furthermore, CLA failed both to perform work in accordance with local procedures and to develop and implement a Part 851 compliant training program for utility tractor operators. Specific examples include:

1. CLA failed to conduct an adequate safety analysis of range conditions after the 2016 installation of the intermediate berm on Range 1. Consequently, line-of-sight hazards related to the positioning of the intermediate berm were not identified.
2. CLA failed to operate the utility tractor in accordance with the manufacturer’s recommendations as required by the approved firearms program SOP. The investigation revealed that CLA routinely attached a vehicle tow strap to the mainframe of the utility tractor’s bucket loader to tow target vehicles, contrary to the manufacturer’s instructions for towing operations. The manufacturer’s instructions indicate that loads should be pulled or towed using the vehicle’s drawbar or a 3-point hitch designed specifically for towing. Towing from any other point except the drawbar increases the risk of serious personal injury or death due to the tractor tipping over.
3. CLA failed to require a worker to complete instructor on-the-job training or obtain written approval from the Training Manager, as required by the approved firearms program SOP, before the worker operated the utility tractor.
4. CLA failed to develop a utility tractor operator training program meeting Part 851 requirements for a training and information program. For example, the CLA operator training program lacked hazard information and limitations of use, as well as periodic re-training to ensure that workers were adequately trained.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$106,000

Civil Penalty (with 50 percent reduction for CLA’s corrective actions) – \$53,000

II. ADMINISTRATIVE APPEAL

Pursuant to 10 C.F.R. §§ 851.43(b) and 851.44(a), CLA may petition DOE's Office of Hearings and Appeals for review of this FNOV within 30 calendar days of receipt of this FNOV. CLA's petition must conform with the procedural requirements set forth in 10 C.F.R. Part 1003, *Office of Hearings and Appeals Procedural Regulations*, Subpart G, §§ 1003.70, et seq. Note: Given that 10 C.F.R. § 1003, Subpart G, §§ 1003.70, et seq. no longer applies pursuant to 10 C.F.R. § 1003.1(b), CLA's petition must conform with the procedural requirements set forth in 10 C.F.R. Part 1003.1, et seq.

If CLA does not petition the Office of Hearing and Appeals for review within 30 calendar days of receipt of this FNOV, CLA relinquishes any right to appeal any matter in this FNOV, and the FNOV will constitute a final order and CLA must remit the total civil penalty of \$106,000 by check, draft, or money order payable to the Treasurer of the United States (Account 891099) and mail to:

Director, Office of Enforcement
Attention: Office of the Docketing Clerk, EA-10
U.S. Department of Energy
19901 Germantown Road
Germantown, Maryland 20874-1290

To remit the civil penalty by electronic funds transfer (EFT), please have your accounting department contact the Office of Enforcement's Docket Clerk at (301) 903-4033 for EFT wiring instructions.



Jill Hruby
Under Secretary for Nuclear Security
Administrator, NNSA

Washington, D.C.

This 6 day of Oct 2022