



Department of Energy

Washington, DC 20585

July 29, 2025

Ms. Bridgett McMahan
President and Chief Executive Officer
BESCO-Engert
1800 N Central Street
Knoxville, Tennessee 37917

WEA-2025-03

Dear Ms. McMahan:

This letter refers to the Department of Energy's (DOE) investigation into the facts and circumstances regarding the worker injury that occurred on July 14, 2023, at the Oak Ridge National Laboratory's Translational Research Capability project construction site. The injury occurred when an Engert, LLC (Engert) employee was struck and pinned by a 585-pound truss boom attachment (jib) that fell from the forks of a telehandler.

DOE considers this injury to be of high safety significance as it was a near miss to a fatality. The injury occurred when the worker was positioned on the roof to receive a load of three carbon steel pipes, each weighing approximately 200 pounds. As the telehandler operator tilted the forks downward to deliver the load, the load shifted, causing the jib to slide off the forks, striking and pinning the worker. The worker's right ankle and pelvis were fractured, leading to 188 days away from work. The event revealed deficiencies in management responsibilities, hazard prevention and abatement, safety and health standards, construction safety, and training and information.

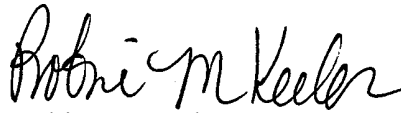
Based on an evaluation of the evidence in this matter, DOE concludes that Engert violated requirements prescribed under 10 Code of Federal Regulations (C.F.R.) Part 851, *Worker Safety and Health Program*. Accordingly, DOE hereby issues the enclosed Preliminary Notice of Violation (PNOV) which cites one Severity Level I violation with a total base civil penalty, before mitigation, of \$118,000.

The Office of Enforcement determined that Engert's corrective actions related to management responsibilities, hazard prevention and abatement, safety and health standards, construction safety, and training and information were timely and appear to address the noncompliances in these areas. If adequately implemented and maintained by Engert, the corrective actions should be sufficient to prevent recurrence of the conditions that led to this injury. Therefore, the Office of Enforcement grants 50 percent reduction in the base civil penalty of this Severity Level I violation. As a result, the total proposed civil penalty is \$59,000.

Pursuant to 10 C.F.R. § 851.42, *Preliminary Notice of Violation*, you are obligated to submit a written reply within 30 calendar days of receipt 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, then in accordance with 10 C.F.R. § 851.42(d), you relinquish any right to appeal any matter in the PNOV, and the PNOV will constitute a final order.

After reviewing your reply to the PNOV, DOE will determine whether any further activity is necessary to ensure compliance with DOE worker safety and health requirements.

Sincerely,

A handwritten signature in black ink, appearing to read "Robin M. Keeler". The signature is fluid and cursive, with the first name "Robin" and last name "Keeler" clearly distinguishable.

Robin M. Keeler
Acting Director
Office of Enforcement
Office of Enterprise Assessments

Enclosures: Preliminary Notice of Violation (WEA-2025-01)
Payment Processing Instructions

cc: Megan Duthie, Legal Counsel, BESCO
Trey Wheeler, SC-OSO

Preliminary Notice of Violation

Engert, LLC
Oak Ridge National Laboratory

WEA-2025-03

A U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with the July 14, 2023, worker injury, that occurred during a material handling activity at the Oak Ridge National Laboratory (ORNL) Translational Research Capability (TRC) project construction site, revealed violations of DOE worker safety and health requirements by Engert, LLC (Engert). The injured worker was employed by Engert, a subcontractor for The Whiting-Turner Contracting Company (Whiting-Turner). At the time of the event, Whiting-Turner was under contract with UT-Battelle, LLC (UT-Battelle) as the general contractor for the TRC construction project.

The injury occurred when an unsecured 585-pound truss boom attachment (jib) fell from the forks of a telehandler and struck the worker, who was positioned on the roof to receive a load of three carbon steel pipes, each weighing approximately 200 pounds. As the telehandler operator tilted the forks downward to deliver the load, the load shifted, causing the jib to slide off the forks, striking and pinning the worker. The worker's right ankle and pelvis were fractured, leading to 188 days away from work.

Pursuant to Section 234C of the Atomic Energy Act of 1954, as amended, and DOE regulations set forth at 10 Code of Federal Regulations (C.F.R.) Part 851, *Worker Safety and Health Program*, DOE hereby issues this Preliminary Notice of Violation (PNOV) to Engert. The violations relate to deficiencies in management responsibilities, hazard prevention and abatement, safety and health standards, construction safety, and training and information. DOE has grouped and categorized the violations as one Severity Level I violation.

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 proposes to impose a total civil penalty of \$59,000.

As required by 10 C.F.R. § 851.42(b) and consistent with Part 851, appendix B, the violation is identified below. If this PNOV becomes a final order, Engert must prominently post a copy of this PNOV at or near the location where the violation occurred until the violation is corrected in accordance with 10 C.F.R. § 851.42(e).

I. VIOLATION

Management Responsibilities, Hazard Prevention and Abatement, Safety and Health Standards, Construction Safety, and Training and Information.

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 [Part 851]; and (ii) [t]he worker safety and health program for that workplace.”

Title 10 C.F.R. § 851.20, *Management 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. § 851.22, *Hazard prevention and abatement*, subsection (c), states that “[c]ontractors must address hazards when selecting or purchasing equipment, products, and services.”

Title 10 C.F.R. § 851.23, *Safety and health standards*, subsection (a), states that “[c]ontractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace:...(3) Title 29 [C.F.R.] Part 1910, *Occupational Safety and Health Standards excluding 29 CFR 1910.1096, “Ionizing Radiation”; 29 CFR 1910.1000, “Air Contaminants,” Tables Z-1 and Z-2, as they relate to beryllium and beryllium compounds; and 29 CFR 1910.1024, “Beryllium.”*...(7) Title 29 [C.F.R.] Part 1926, *Safety and Health Regulations for Construction except for 29 CFR 1926.1124, “Beryllium.”*...” Subsection (b), states “[n]othing in this part relieves contractors from the responsibility to comply with any additional safety and health requirements that are necessary to protect the safety and health of workers.”

Title 10 C.F.R. § 851.24, *Functional areas*, subsection (a), states that “[c]ontractors must have a structured approach to their worker safety and health program which at a minimum, include provisions for the following applicable functional areas in their worker safety and health program:...construction safety....” Subsection (b) states that “[i]n implementing the structured approach required by [subsection] (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.’”

Title 10 C.F.R. § 851, *Appendix A to Part 851 – Worker Safety and Health Functional Areas*, section 1, *Construction Safety*, subsection (a), states that “[f]or each separately definable construction activity...the construction contractor must: (1) [p]repare...an activity hazard analysis....Such analyses must: (i) identify foreseeable hazards and planned protective measures....”

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.” Subsection (b) states that “[t]he contractor must provide: (1) [t]raining and information for new workers, before or at the time of initial assignment to a job involving exposure to a hazard; (2) [p]eriodic training as often as necessary to ensure that workers are adequately trained and informed....”

Title 29 C.F.R. § 1910.178, *Powered Industrial Trucks*, subsection (l)(1)(i), states that “[t]he employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this paragraph (l)...(ii) [p]rior to permitting an employee to operate a powered industrial truck (except for training purposes), the employer shall ensure that each operator has successfully completed the training required by this paragraph (l), except as permitted by paragraph (l)(5).”

Title 29 C.F.R. § 1926.20, *General Safety and Health Provisions*, subsection (b)(2), *Accident prevention responsibilities*, states that “[s]uch programs [as may be necessary to comply with 29 C.F.R. Part 1926] shall provide for frequent and regular inspections of the...equipment to be made by competent persons designated by the employers.”

Title 29 C.F.R. § 1926.602, *Material Handling Equipment*, subsection (d), *Powered industrial truck operator training*, states that “[t]he requirements applicable to construction work...are identical to those set forth at § 1910.178(l)....”

UT-Battelle *Management System: Worker Safety and Health, Program Description: Worker Safety and Health Program*, revision of August 12, 2022, section 2.0, *Worker Safety and Health Program Description*, subsection 3.2.1, *Primary Worker Safety and Health Management Systems*, states that “[t]he WSH [worker safety and health] management system is the mechanism for flowing down occupational safety and health requirements including the Occupational Safety and Health Administration (OSHA) standards and other regulations and consensus standards included by reference in 10 CFR 851....” Subsection 3.3, *Flow Down of Requirement to Subcontractors*, states that “...ORNL subcontractors...will work under ORNL’s approved WSHP [worker safety and health program]....Subcontractors are required to flow applicable WSH requirements to lower tier subcontractors.” Subsection 4.1, *Management Responsibilities*, states that “...10 CFR 851...requires...ORNL sub-contractors and lower-tier subcontractors, to provide a place of employment that is free from recognized hazards....” Appendix C, *Functional Area Descriptions*, paragraph (c)(1), *Construction Safety*, states that “[f]or DOE-funded construction subcontracts, the environmental, safety, and health expectations are formally communicated to construction subcontractors in contract terms, conditions and specifications.”

Whiting-Turner *Site Specific Safety Plan ORNL-TRC*, Revision 5.5, April 6, 2022, section 6.2, *Means of Controlling and Coordinating contractor/subcontractors and Suppliers*, states that “[a]ll contractor/subcontractors and vendors, shall comply with the policies and procedures indicated within this Site-Specific Safety Plan as well as the policies and procedures contained within the following publications: Occupational Safety and Health Standards for the

Construction Industry (CFR) 29 Part 1926...Occupational Safety Standards for General Industry CFR 29 Part 1910, DOE CFR part 851...Whiting-Turner Contracting Company EH&S [Environmental, Health and Safety] Manual...Contractor/Subcontractor EH&S Manual.” Section 6.3, *Safety Responsibilities of contractors/subcontractors and Suppliers*, states that “[s]ubcontractors are required to develop the Activity Hazard Analysis (AHA) for their definable feature of work, per the AHA Form....”

Whiting-Turner *Environmental, Health & Safety Manual*, Revision 1, November 15, 2018, *Part B: Environmental, Health and Safety Manual Elements*, subsection B.6., *Activity Hazard Analysis and Pre-Task Planning*, states that “...Activity Hazard Analysis (AHA) and Pre-task Planning (PTP)...are required for each work operation not only by Whiting-Turner but also for each contractor/subcontractor, regardless of tier.” *Procedures* states that “[f]or each phase or major type of work/definable feature of work an AHA will be completed...[to identify] hazards..., [and] required action to eliminate or control the hazard....” Subsection E.19, *Material Handling and Rigging*, states that “[e]ach contractor...must comply with...the following guidelines...[t]aglines shall be utilized to minimize worker exposure to falling and swinging loads.” Appendix, *Whiting-Turner Contractor/Subcontractor EH&S Manual*, section 1, *Contractor/Subcontractor EH&S Requirements*, subsection *Activity Hazard Analysis (AHA) and Pre-Task Planning (PTP)*, states that “[f]or each phase or major type of work/definable feature of work an AHA will be completed to identify the following: [h]ealth and safety considerations, [d]escription of steps to be performed, [h]azards associated with each step, [r]equired action to eliminate or control the hazard, [f]ocus four hazards and controls....”

Engert, *Safety Serious Corporate Safety Manual* (SSCSM), Revision 4, December 7, 2015, section *Safety Program Objectives/Responsibilities*, subsection 1.0, *Responsibilities*, paragraph 1.1.3, *Supervisors/Foreman*, states that supervisors/foreman must “[p]rovide basic job training and safety instruction to all employees...and evaluate work conditions and work procedures...[and] ensure that tools, equipment...are properly...utilized.”

Engert SSCSM, section *Job Hazard Analysis (JHA) Procedure*, Revision 0, March 15, 2012, states that “JHAs shall be developed for tasks that are critical to the project or have been determined to have unique safety issues that need the individual steps of the process, the hazards, and hazard mitigation identified for integration into the work plan to ensure the safety of all involved with that particular work scope.”

Engert SSCSM, section *Rigging Program*, Revision 3, August 28, 2012, subsection 3.1, states that “Engert will verify that all employees are trained in and familiar with the required safe work practices and procedures in the use of any equipment required...and safety procedures which must be followed to safeguard personnel involved in hoisting and rigging operations or who work in the vicinity of such operations.” Subsection 3.2.7 states that “[l]oads shall be balanced and rigged accordingly....”

Engert SSCSM, section *Forklifts and Motorized Pallet Jacks Safety Procedures*, Revision 1, September 17, 2012, subsection 4.0, *Training*, states that “[a]ll training and evaluation must be completed before an operator is permitted to use a Powered Industrial Truck (forklift, etc.).” Subsection 4.3, *Initial Training*, states that “[p]owered industrial truck operators shall receive

initial training in the following topics...[o]perating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate...for and attachment adaptation, operation, and use limitations....” Subsection 5.0, *Operating Rules and Procedures*, paragraph 5.3, states that “[d]aily inspections will be performed prior to each shift.” Subsection 8.0, *Traveling*, paragraph 8.9, states that “[o]nly stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.” Paragraph 8.9.3, states that “[e]xtreme care shall be used when tilting the load forward or backward, particularly when high tiering....Tilting forward with load engaging means elevated shall be prohibited except to pick up a load.”

JCB Operator’s Manual - Loadall (Rough Terrain Variable Reach Truck) 506-36, 507-42, 509-42, 510-42, 510-56, 512-56, 514-56, EN-9831/0050 Issue 6, March 2018, Forward, states that “...[y]ou must understand and follow the instructions....” Page 8, *Danger Zone*, states to “[k]eep all persons out of the danger zone. Persons in the danger zone could be injured.” Page 29, *Walk-Around Inspection*, states, “**WARNING** Walking or working under raised attachments can be hazardous....” Paragraph 2.2, states to “[m]ake sure that the attachment is correctly attached....” Page 82, *Auxiliary Circuit Controls*, states, “[w]arning before operating...make sure that you are aware of all safety notices that apply to the attachment....” Page 92, *Repositioning the Forks*, states, “[w]arning loads can fall off incorrectly spaced forks....Always space the forks correctly....” Page 100, *Lifting a Suspended Load*, states to “[m]ake sure that all bystanders, riggers and banks man [signal person] are clear of the raised load and machine at all times.” Page 269, *Technical Data - Star Industries Truss Boom*, states, “[w]arning! [f]ailure to comply with all restrictions, instructions and warnings contained in this letter and in all Operator Manuals could result in death or serious injury.” Paragraph 2.1 states that “[o]perators must be trained and qualified how to safely operate the equipment and be familiar with the specific model of telescopic handler....” Page 270, *Setup*, paragraph 2, states to “[p]osition both forks equally from the centreline [sic] of the fork carriage such that the load center of the attachment is on centre [sic] with the fork carriage and boom.” Paragraph 3 states to “[s]ecure the attachment to the forks and fork carriage according to the manufacturer’s instructions.” Page 271, *Lifting*, paragraph 8, states, “[d]o not tilt the forks forward from the tilted back position with a suspended load.” Paragraph 9, states to “[u]se guide ropes or tag lines by qualified personnel to help control the load and prevent it from swinging.”

Star Industries *Forklift Heavy Duty Jib Operator’s Manual for Model 1360B*, states “[b]efore use, read and understand the complete operator’s manual.” Page 1, *Installation, Use & Safety Precautions*, states to “...insert locking pins behind the heel of each fork and secure with hair pins...Danger – DO NOT USE WITHOUT INSTALLING RETAINING PINS behind the heel of each fork and securing with hair pins or cotter pins.” Page 4, *General Precautions*, paragraph 1, states that the “[f]orklift operator must be properly trained and have required certifications.” Paragraph 2 states, “[b]efore using the [j]ib check to see that it is properly secured to the forklift....” Paragraph 4 states that “[f]orks should be level or tipped upward (never down below level) when using the jib.” Paragraph 10 states “[e]ach time before use...make sure cotter pins are installed properly....” Additionally, the jib features permanently affixed, clearly visible hazard labels, including a "Caution" label instructing users to read the operator’s manual and a "Danger" label detailing proper fork positioning and pin placement.

Contrary to the above requirements, Engert failed to adequately ensure that work was performed in accordance with all applicable requirements of 10 C.F.R. Part 851, 29 C.F.R. Parts 1910 and 1926, the DOE approved WSHP for the workplace, and the Engert SSCSM. Specific examples include:

1. Engert failed to adequately identify foreseeable hazards and planned protective measures associated with material handling and rigging activities at the TRC construction project site. Specifically, the “Mechanical, Piping, and Ductwork” pre-task plan and activity hazard analysis did not identify the hazards associated with using the telehandler and jib and did not define protective measures to control these hazards.
2. Engert failed to adequately train and qualify workers. Specifically, Engert failed to train the telehandler operator to use the jib in accordance with manufacturer instructions. Additionally, Engert failed to train and qualify workers on how to properly rig and secure the jib and the load to the telehandler, and train and qualify the signaler who directed the lift on proper fork placement during the lift. As a result, the jib was not secured to the telehandler, and the telehandler forks were not kept level or tipped upward.
3. Engert failed to develop an adequate inspection procedure for material handling equipment. Specifically, the pre-operational check process lacked steps for inspecting the jib. Additionally, a qualified inspector did not inspect the jib and its components before use and did not verify that retaining and cotter pins were installed and secure behind the heel of each fork. As a result, the telehandler was operated without the jib properly secured to the telehandler forks.
4. Engert failed to ensure that the telehandler forks were correctly positioned and secured in accordance with the manufacturer’s instructions, which requires forks to be spaced equally from the centerline of the fork carriage. The correct positioning is required to ensure the jib’s load center of gravity aligns with the fork carriage and boom during installation to prevent instability of the load and tipping of the telehandler during operation.
5. Engert failed to ensure that the load of pipes on the telehandler was correctly rigged in preparation for the lift. Specifically, the load was not stabilized horizontally using lifting points on the same plane to ensure even weight distribution. Instead, the load was rigged parallel to the boom using two separate hook locations on different planes (i.e., two slings were attached to the forward jib attachment hook position number “2,” and a third sling was attached to the mast hook at the rear of the telehandler carriage). As a result, the load was neither stable nor balanced.
6. Engert failed to ensure the use of a tagline to help control the suspended load and prevent it from swinging during transport and placement on the roof. Consequently, workers entered the area in and around the jib and suspended load to free a pipe elbow that was caught on the parapet wall, thereby exposing them to struck-by hazards.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$118,000

Proposed Civil Penalty (50 percent mitigation granted) – \$59,000

II. REPLY

Pursuant to 10 C.F.R. § 851.42(b)(4), Engert is hereby obligated to submit a written reply within 30 calendar days of receipt of this PNOV. The reply should be clearly marked as a “Reply to the Preliminary Notice of Violation.”

If Engert chooses not to contest the violation set forth in this PNOV and the proposed remedy, then the reply should state that Engert waives the right to contest any aspect of this PNOV and the proposed remedy. In such case, the total proposed civil penalty of \$59,000 must be remitted within 30 calendar days after receipt of this PNOV. Remittance of payment must be submitted via electronic funds transfer (EFT) or automated clearing house (ACH) Transfer to DOE through the U.S. Treasury. The Office of Enforcement must be copied at enforcementdocketclerk@hq.doe.gov when the electronic payment is submitted to the U.S. Treasury. Instructions for remitters sending payments in U.S. dollars via EFT or ACH Transfer are enclosed. This PNOV will constitute a final order 30 calendar days from receipt. If this PNOV becomes a final order, then, pursuant to 10 C.F.R. § 851.42(e), a copy of the PNOV must be prominently posted at or near the location where the violation occurred until the violation is corrected.

If Engert disagrees with any aspect of this PNOV, including the proposed civil penalty, then as applicable and in accordance with 10 C.F.R. § 851.42(c)(1), the reply must: (1) state any facts, explanations, and arguments that support a denial of an alleged violation; (2) demonstrate any extenuating circumstances or other reason why the civil penalty should not be imposed or should be further mitigated; and (3) discuss the relevant authorities that support the position asserted, including rulings, regulations, interpretations, and previous decisions issued by DOE. In addition, 10 C.F.R. § 851.42(c)(2) requires that the reply include copies of all relevant documents.

If Engert fails to submit a written reply within 30 calendar days of receipt of this PNOV, then pursuant to 10 C.F.R. § 851.42(d), Engert relinquishes any right to appeal any matter in this PNOV and this PNOV will constitute a final order and the civil penalty must be remitted in the manner described above and as provided in the enclosed instructions.

Please submit your reply to the Director, Office of Enforcement by email to enforcementdocketclerk@hq.doe.gov.

A copy of the reply should also be sent to the Manager of the DOE Oak Ridge National Laboratory Site Office.



Robin M. Keeler
Acting Director
Office of Enforcement
Office of Enterprise Assessments

Washington, D.C.
This 29th day of July 2025