



## Department of Energy

Washington, DC 20585

July 10, 2024

Mr. Ryan Hardin  
Project Manager  
Whittaker Construction & Excavating, Inc.  
Post Office Box 21  
105 E. Park Street  
Earlville, Illinois 60518

WEA-2024-03

Dear Mr. Hardin:

This letter refers to the Department of Energy's (DOE) investigation into the facts and circumstances associated with the serious injury of a Harris Rebar Placing, LLC (HRP) worker following a 23-foot fall at the Fermi National Accelerator Laboratory (Fermilab) on May 25, 2023. At the time of the event, Whittaker Construction & Excavating, Inc. (WCEI) was the general construction contractor under a joint subcontract with Nucor Harris Rebar Midwest, LLC, and HRP, to support construction activities at Fermilab.

DOE considers the fall event to be of high safety significance. The fall occurred when the HRP ironworker was preparing to secure a rebar template bar to the east side of a 26.5-foot-tall concrete formwork wall. The ironworker fell backwards, striking a diagonal brace before landing on the concrete slab approximately 23 feet below. The ironworker sustained serious injuries, including head trauma, and was air lifted to a local hospital. The event revealed deficiencies in: management responsibilities, hazard prevention and abatement, construction safety, and training and information.

Based on an evaluation of the evidence in this matter, DOE concludes that WCEI violated requirements prescribed under 10 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.

After the event, WCEI took action to ensure all workers were trained and ensure 100 percent tie-off for all workers climbing Doka® formwork. WCEI trained all their workers on fall protection and verified HRP had completed training as well. WCEI also installed manufacturer approved anchorages and installed self-retracting lifelines (SRLs) to the top of the formwork to ensure workers were continually tied-off while climbing and working from the formwork. As a result, the total proposed civil penalty, after mitigation, 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. DOE 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 'Anthony C. Pierpoint', written in a cursive style.

Anthony C. Pierpoint  
Director  
Office of Enforcement  
Office of Enterprise Assessments

Enclosures: Preliminary Notice of Violation (WEA-2024-03)  
Electronic Payment Processing Instructions

cc: Angela Aparicio, Fermi Research Alliance, LLC  
Roger Snyder, SC-FSO

**Preliminary Notice of Violation**

Whittaker Construction and Excavating, Inc.  
Fermi National Accelerator Laboratory

WEA-2024-03

A U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with the May 25, 2023, worker injury at the Fermi National Accelerator Laboratory's (Fermilab) Proton Improvement Plan II (PIP-II) linear accelerator (LINAC) construction site revealed violations of DOE worker safety and health requirements by Harris Rebar Placing, LLC (HRP). The injured worker was an employee of HRP, subcontractor to Whittaker Construction and Excavating, Inc. (WCEI). At the time of the event, WCEI was under contract with Fermi Research Alliance (FRA) as the general construction contractor for the PIP-II LINAC construction project.

The injury occurred when the worker, employed as an ironworker by HRP, was preparing to secure a rebar template bar to the east side of a 26.5-foot-tall concrete formwork wall, and fell backwards, striking a diagonal brace before landing on the concrete slab approximately 23 feet below. The worker sustained serious injuries, including head trauma, and was air lifted to a local hospital.

Pursuant to Section 234C of the Atomic Energy Act of 1954, as amended, and DOE regulations set forth in 10 C.F.R. Part 851 (Part 851), *Worker Safety and Health Program*, DOE hereby issues this Preliminary Notice of Violation (PNOV) to WCEI. The violations relate to deficiencies in management responsibilities, hazard prevention and abatement, 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 mitigating factors, DOE imposes a total proposed civil penalty of \$59,000.

As required by 10 C.F.R. § 851.42(b) and consistent with Part 851, Appendix B, the violations are listed below. If this PNOV becomes a final order, then WCEI 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, 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... (7) Title 29 [C.F.R.] Part 1926, *Safety and Health Regulations for Construction...*”

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 (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 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. § 1926.501, *Duty to have fall protection*, subsection (b)(5), states that “[e]ach employee on the face of formwork...shall be protected from falling 6 feet (1.8 m) or more to lower levels by personal fall arrest systems [PFASs]...or positioning device systems [PDSs].”

Title 29 C.F.R. § 1926.502, *Fall protection systems criteria and practices*, subsection (d)(15), states that “[a]nchorage used for attachment of personal fall arrest equipment shall be...designed, installed, and used as follows...(i) as part of a complete [PFAS]...” Subsection (e) states that “[PDSs]...(i) shall be rigged such that an employee cannot free fall more than 2 feet.”

Title 29 C.F.R. § 1926.503, *Training program*, subsection (b)(1), states that “[t]he employer shall verify compliance with paragraph (a).... If the employer relies on training conducted by another employer...the certification record shall indicate the date the employer determined the prior training was adequate....” Subsection (b)(2) states that “[t]he latest training certification shall be maintained.”

FRA *Worker Safety and Health Program*, revision 15, September 28, 2022, *Executive Summary*, states that “[t]he requirements of the WSHP [Worker Safety and Health Program] apply to...subcontractors. FRA communicates WSHP requirements through FESHM [Fermilab Environment, Safety and Health Manual].... FRA also expects all subcontractors to comply with WSHP requirements provided to them in the subcontract *ESH Requirements Document*, Division 1, section 013100.... The FESHM 7000 series, *Occupational and Subcontractor Safety*, defines this process.” Section 2.1, *Construction Safety*, states that “[a]ll subcontractors who perform work at Fermilab sites must comply with the provision of 10 C.F.R. 851 Worker Safety and Health Program. FRA flows down these requirements to subcontractors and their employees through Contract terms and conditions.... All Subcontractors are required to have their own Construction Safety Plan and/or [Hazard Analysis], depending upon the complexity of the project, in place prior to starting work.”

FRA FESHM 7010, *Construction ES&H Program*, August 2022, section 5.2.4, states that “[a]ll the sub-tier subcontractors employed by the Subcontractor must agree in writing to follow...10 CFR 851.” Section 6.4.4 states that “[a]ll subcontracts will contain a statement...notifying the subcontractor and all sub-tier contractors [that]...[t]raining records for certain high hazard activities will be inspected prior to exposing employees to the respective hazard. The activities that require verification of training prior to execution of work are...fall protection.” Section 7.6.1 states that “[a]ll fall hazards equal to or greater than six (6) feet will have 100% fall protection for all Subcontractor’s and/or Sub-tier subcontractor’s employees.” Section 7.6.4 states that “[a]ll workers using [a] fall arrest harness must be specifically trained in their use.” Section 10.3.1 states that “[t]he Subcontractor...will submit its ES&H Program and Construction ES&H Certification [CESHC] as delineated in 013100 ES&H Requirements. No construction work will start until these documents have been reviewed and approved.” Section 013100, *Environmental, Safety, and Health [ES&H] Requirements*, subsection 1.9, *Subcontractor’s [ES&H] Program*, paragraph A.2, states that the “ES&H Program will address the Subcontractor’s commitment to...Integrated Safety...Management principals...[such as] (c.)

[p]ersonnel possess the experience, knowledge, skill, and abilities that are necessary.... Examples... [include] (3) [p]rocess for assuring sub-tier contractors are adequately skilled to perform their work activities....” Subsection 1.11, *Hazard Analysis*, paragraph D.6, states that “[s]pecific procedures in the area of fall protection...may be required as job conditions dictate....” Section 3.4, *Subcontractor Training*, paragraph C, states that “[s]ubcontractors shall maintain on-site...any and all occupational safety...records.... Such records include...Fall Protection.” Section 3.7, *Fall Protection*, paragraph A, states that “[a]ll fall hazards...greater than six (6) feet will have 100% fall protection for all Subcontractor and Sub-tier employees.”

FRA FESHM 7060, *Fall Protection Program*, February 2021, section 4.0, *Program Description*, states that “[f]or all construction activities, the fall hazard cannot be at or greater than six (6) feet.”

FRA *Subcontract Number 6904363 For Construction of the PIP-II Linac Complex Between FRA and Whittaker Construction and Excavating, Inc.*, December 16, 2022, *PIP-II Linac Complex*, Section A4, *General Purpose of the Subcontract*, states that “[t]he general purpose...is for all...safety oversight...and supervision as required for the construction of the PIP-II Linac Complex....” Attachment J#1 FRA, *General Terms and Conditions for Construction*, January 2022, Clause 13, *Environment, Safety & Health (ES&H)*, states that “[t]he [s]ubcontractor shall take all reasonable precautions...to protect the health and safety of employees [and] sub-subcontractor employees...to prevent injury to any employees.... The safety of all persons employed by the Subcontractor and its subcontractors...shall be the sole responsibility of the Subcontractor.” Attachment J#3, *Project Manual, PIP-II Linac Complex, Project Number 4-3-5 (09-22-2022)*, section E, *Safety Requirements 10 CFR 851 Flow Down Acknowledgement*, states that “[t]he Subcontractor will comply [with] the Department of Energy requirements of 10 [C.F.R.], Part 851.... The prime Subcontractor [will] flow down this requirement to each of its sub-tier subcontractors.... Acknowledgement of this flow down is required to be submitted by the Subcontractor for each sub-tier subcontractor prior to commencing work on the Fermilab site.” Section 013100, *[ES&H] Requirements*, section 1.8, paragraph A, states that “[t]o ensure acceptance to 10 CFR 851, the Subcontractor will complete and submit the attached [CESHC].” Section 1.9, *Subcontractor’s [ES&H] Program*, paragraph A.2, states that “[t]he ES&H Program will address the Subcontractor’s commitment to...Integrated Safety...Management principals... [such as] (c.) [p]ersonnel possess the experience, knowledge, skill, and abilities that are necessary.... Examples...[include] (3) [p]rocess for assuring sub-tier contractors are adequately skilled to perform their work activities....” Paragraph A.2.f states that “controls, tailored to the work being performed, are present to prevent and mitigate hazards. Examples [include] (3) [p]lanning and selection of appropriate and effective protective measures.” Paragraph A.2.g states that “[t]he...requirements to be satisfied [for Operations Authorization]...are: (2) [p]rocess to assure workers, including sub-tier contractors[,] are appropriately trained to do their job safely....” Section 3.7, *Fall Protection*, states that “[a]ll fall hazards...greater than six (6) feet will have 100% fall protection for all Subcontractor and Sub-tier employees.”

WCEI *Safety Manual for [Fermilab]*, July 2015, chapter 7.1, *Subcontractor Job Safety Rules, General Safety and Health Provisions*, states that “[c]ontractor requires full compliance with requirements of the Occupational Safety and Health Standards (29 C.F.R. 1926)...by subcontractor.... Subcontractor shall comply with said requirements, standards, and regulations,

and require and be directly responsible for compliance therewith on the part of its...subcontractors.”

WCEI *Site Specific Construction Safety and Health Plan*, February 1, 2023, section 3, *Acknowledgment of 10 CFR 851*, states that “I...certify that I have read the requirements of 10 CFR 851 and attest that [WCEI] and its sub-tier Subcontractors will comply with the requirements of 10 CFR 851.” Section 7, *Required Training/Qualifications*, states that “[t]raining/[c]ertification records will be kept in the Jobsite Trailer.... [A]ctivities...which have [Occupational Safety and Health Administration (OSHA)]-required training:...Fall Protection Equipment.” Section 9, *Plan Attachments*, states that “[d]ocumentation and/or certification for employees exposed to job hazard are kept in jobsite trailer.”

WCEI *Subcontract Agreement No. 2022003-014 with Nucor Harris Rebar Midwest, LLC, PIP-II Linac Complex*, December 13, 2022, states that “[s]ubcontractors and their [s]ubcontracts shall comply with...[a]ll provisions of Federal, State and Local Law....” *Additional Provisions and Conditions of Subcontract*, paragraph 15, states that “[s]ubcontractor shall comply with...all safety measures initiated by...Contractor or Owner...and with all applicable laws,...rules, [and] regulations....” Paragraph 16 states that “[e]very provision of the General Contract required to be incorporated into subcontracts is hereby incorporated to the extent directly related to Subcontractors scope of work.”

Doka® *Framed formwork Framax S Xlife, User Information, Instructions for assembly and use*, 999783014, January 2019, *Basic safety warnings, user target groups*, page 4, states that “[a]ll persons working with the product...must be familiar with...all the safety instructions.... In all cases, users must ensure compliance with the national applicable laws, standards and rules....” *Attachment points for personal fall arrest equipment*, page 17, states that “[t]he attachment points shown...for [PFAS] conform to OSHA requirements...” and are illustrated via diagram.

Doka® *Technical Newsletter 850, Anchorage points for personal fall arrest system (PFAS)*, January 10, 2017, page 1, states that “[t]his Technical Newsletter shows the OSHA regulations compliant anchorage points for attaching a [PFAS] to Doka formwork systems.” Further, on page 2, a diagram of the Framax S Xlife panel shows the manufacturer-approved, OSHA-compliant PFAS anchorage points.

Contrary to the above requirements, WCEI failed to comply with applicable requirements of Part 851 and the FRA WSHP in the areas of management responsibilities, hazard prevention and abatement, construction safety, and training. Specific examples include the following:

1. WCEI failed to ensure that HRP developed and implemented adequate fall protection measures for ironworkers climbing formwork. Specifically, HRP’s site-specific safety plan and job hazard risk analysis stated “100% tie-off;” however, WCEI did not require HRP to provide work instructions for planned protective measures on how to achieve “100% tie-off.” For example, WCEI did not ensure that HRP’s planning for fall hazard controls considered the Doka® formwork manufacturer requirements and limitations for PFAS or PDS anchorage points. Consequently, HRP was allowed to proceed with climbing activities without

developing appropriately detailed fall protection measures that included specific PFAS and PDS formwork anchorage points.

2. WCEI failed to request fall protection training records from HRP to verify that ironworkers were trained by a competent person in the use and operation of the PFAS and PDS. Specifically, WCEI did not verify and maintain records demonstrating that HRP had trained the ironworkers or determined the adequacy of their previous training. Consequently, WCEI allowed HRP ironworkers to climb above six feet without the necessary training to work safely from Doka<sup>®</sup> formwork.
3. WCEI failed to ensure that the HRP work package was approved by FRA prior to construction. FRA's initial review of construction Submittal No. 016 noted several questions about the HRP hazard analysis, including fall protection, and marked it as "Revise and Resubmit" with no erection or installation until approved by FRA. WCEI did not ensure that the work package was revised and resubmitted to FRA. Consequently, HRP began erection and installation activities, including formwork climbing, without an FRA-approved work package.
4. WCEI failed to ensure acknowledgement of the Part 851 flow down for the sub-tier subcontractor, HRP, prior to commencing work on the PIP-II LINAC project.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$118,000

Proposed Civil Penalty (as adjusted) – \$59,000

## II. REPLY

Pursuant to 10 C.F.R. § 851.42(b)(4), WCEI 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 WCEI chooses not to contest the violations set forth in this PNOV and the proposed remedy, then the reply should state that WCEI 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 ACH Transfer to DOE through the U.S. Treasury. The Office of Enforcement must be copied at [enforcementdocketclerk@hq.doe.gov](mailto: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 upon the filing of the reply.

If WCEI disagrees with any aspect of this PNOV, including the proposed civil penalties, 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 penalties 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 WCEI 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), WCEI relinquishes any right to appeal any matter in this PNOV and this PNOV will constitute a final order.

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

A copy of the reply should also be sent to the Manager of the DOE Fermi Site Office.



Anthony C. Pierpoint  
Director  
Office of Enforcement  
Office of Enterprise Assessments

Washington D.C.  
This 10th day of July 2024