



Department of Energy

Washington, DC 20585

July 10, 2024

Dr. Lia Merminga
Laboratory Director
Fermi Research Alliance, LLC
Post Office Box 500
Batavia, Illinois 60510-5011

WEL-2024-03

Dear Dr. Merminga:

The Office of Enforcement has completed an investigation of a May 25, 2023, incident when an ironworker was seriously injured after falling from concrete formwork at the Fermi National Accelerator Laboratory's (Fermilab) Proton Improvement Plan II (PIP-II) linear accelerator (LINAC) construction site. Fermi Research Alliance, LLC (FRA) reported the incident into the Department of Energy's (DOE) Noncompliance Tracking System under NTS-SC-FSO-FRA-FERMIBOP-2023-0010661, dated June 30, 2023. The ironworker was an employee of Harris Rebar Placing, LLC (HRP), a subcontractor to Whittaker Construction and Excavating, Inc. (WCEI). WCEI was the general contractor to FRA for the PIP-II LINAC construction project.

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.

Based on this investigation, the Office of Enforcement identified concerns with FRA's implementation of 10 C.F.R. Part 851, *Worker Safety and Health Program* requirements. Specifically, FRA did not provide adequate safety oversight and supervision of Whittaker Construction and Excavating, Inc. (WCEI) and Harris Rebar Placing, LLC (HRP) activities on the PIP-II LINAC project to ensure approved work procedures were in place, anchor points were clearly identified and installed, and personnel were adequately trained on fall protection. For example:

- FRA required 100 percent fall protection for fall hazards greater than six feet, including work performed by subcontractors, but did not ensure that WCEI and HRP developed sufficient work instructions for achieving 100 percent fall protection. Specifically, the HRP job hazard risk analysis (JHRA) stated 100 percent fall protection, but FRA did not ensure WCEI or HRP identified manufacturer-approved, OSHA-compliant anchorage points for climbing formwork.


- FRA did not ensure that the HRP work package was approved before allowing rebar installation activities to begin. Specifically, FRA reviewed WCEI's construction Submittal No. 016, which consisted of the HRP site specific safety plan and the JHRA. FRA noted several questions about the HRP hazard analysis and marked the work package as "Revise and Resubmit" with no erection or installation until approved by FRA. However, FRA allowed WCEI and HRP to begin rebar installation on the PIP-II LINAC project, which included formwork climbing, without receiving and approving a revised work package.
- FRA did not ensure that WCEI or HRP verified that a competent person trained the ironworkers on the personal fall arrest systems and positioning device systems used on the project. Further, FRA did not ensure that WCEI and HRP maintained fall protection training records.
- FRA did not ensure that HRP understood and acknowledged the requirements of 10 C.F.R. Part 851 prior to commencing work. Specifically, FRA did not ensure HRP completed the Construction Environmental, Safety and Health Certification acknowledgement of 10 C.F.R. 851 as required by the Fermilab Environmental, Safety and Health Manual.

The Office of Enforcement acknowledges that FRA made timely notifications to the Fermi Site Office, promptly investigated the event, and prepared a causal analysis and corrective action plan (CAP). The Office of Enforcement also recognizes FRA's participation and transparency in this investigation and the Office of Science Accident Investigation Board proceedings. Additionally, the Office of Enforcement recognizes the swift response by the Fermi first responders. Their skill and professionalism were critical in providing the necessary care to the worker as quickly as possible. The Office of Enforcement has reviewed the CAP and has concluded that the associated corrective actions appear to address the underlying causes and should be effective in preventing recurrence.

The Office of Enforcement has elected to issue this Enforcement Letter to convey concerns with the May 25, 2023, PIP-II LINAC fall event. Issuance of this Enforcement Letter reflects DOE's decision to not pursue further enforcement activity against FRA at this time. In coordination with the DOE Office of Science, the Office of Enforcement will continue to monitor FRA's efforts to maintain a safe workplace.

This letter imposes no requirements on FRA, and no response is required. If you have any questions, please contact me at (301) 903-7707, or your staff may contact Ms. Shannon Holman, Director, Office of Worker Safety and Health Enforcement, at (301) 903-0100.

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

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