



Department of Energy

Washington, DC 20585

June 8, 2021

Dr. Doon Gibbs
Director
Brookhaven Science Associates, LLC
Brookhaven National Laboratory
P.O. Box 5000
Upton, New York 11973-5000

WEL-2021-01

Dear Dr. Gibbs:

The Office of Enterprise Assessments' Office of Enforcement conducted an evaluation into an event involving a subcontract worker fall through a skylight, as reported into the Department of Energy's (DOE) Noncompliance Tracking System under NTS-SC-BHSO-BSA-BNL-2021-0010103, dated January 19, 2021. Based on this evaluation, the Office of Enforcement identified concerns that warrant management attention by Brookhaven Science Associates, LLC (BSA).

The fall event was a near miss with the potential for death or serious injury. It occurred on July 27, 2020, at the Brookhaven National Laboratory (BNL), when a BSA subcontract worker walked towards a tagline hanging from a suspended crane load and stepped through a skylight on the roof of the Magnet Assembly Building (Building 905). The worker fell more than 6 feet and was arrested by their fall protection equipment, narrowly avoiding contact with a steel shelving rack. The worker was able to self-rescue by stepping onto the shelving rack and disconnecting the safety harness. The worker was assisted to the ground and reported no physical injury.

Based on an evaluation of the facts and circumstances of this event, the Office of Enforcement identified concerns with BSA's implementation of the requirements in 10 C.F.R. Part 851 (Part 851) *Worker Safety and Health Program* (WSHP) in the areas of hazard identification and assessment. Specifically, BSA's flow down of work planning requirements did not ensure adequate identification and assessment of the fall hazards associated with the skylights. As described in BHSO's letter dated November 20, 2020, BSA did not ensure skylight covers were installed to protect workers from stepping through holes as required by 29 CFR 1926 Subpart M (Fall Protection). Additionally, BSA did not exercise adequate oversight to ensure the construction subcontractor appropriately planned for the use of the personal fall arrest system (PFAS). The Office of Enforcement determined that prior to commencement of this work evolution, BSA did not demonstrate that the following hazard identification and assessment considerations were completed as part of the subcontractor's work planning process:

- Evaluate the adequacy of the anchorage to ensure that it would support at least 5000 pounds (22.2kN) per employee attached; or ensure that the PFAS was designed, installed,



or used as a part of a complete personal fall arrest system maintaining a factor of safety of at least two, under the supervision of a qualified person.

- Evaluate the wire rigging rope (used as an anchorage attachment), to determine if it was designed, tested, or designated for personnel fall protection use.
- Evaluate the self-retracting lifeline selection to ensure that it would be installed and used in accordance with the manufacturer's specifications.
- Evaluate the fall zone based on the PFAS component selection to ensure that adequate clearance to prevent a worker from contacting a lower level or obstructions.
- Ensure the availability of prompt rescue for a worker who fell or ensure that the worker could self-rescue.

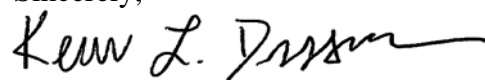
The Office of Enforcement acknowledges that BSA promptly investigated the event and prepared a causal analysis that supports a root cause determination of insufficient hazard identification and assessment of the skylights during the work planning and control process. After the fall, BSA promptly abated or directed the abatement of the hazard by installing covers over the skylights on the walking/working surface for this project. BSA also conducted an extent-of-condition review to identify additional instances at BNL in which similar skylight hazard(s) were present. However, the additional issues regarding PFAS planning, selection, and utilization were not considered in the BSA investigation report or specifically addressed in the corrective action plan. The omission of PFAS considerations in the investigation raises additional concerns with the implementation of the fall protection program at BNL. Failure to adequately plan for PFAS use could potentially lead to catastrophic component failure and/or worker injury or death.

The Office of Enforcement evaluated the BSA corrective action plan. It appears to adequately address the Part 851 hazard identification and abatement failures regarding the skylights; however, there are no specific corrective actions to address the Part 851 safety and health standards requirements for planning, selecting, and using a PFAS.

The Office of Enforcement has elected to issue this Enforcement Letter to convey concerns with how BSA ensures Part 851 requirements are incorporated in their subcontractor work planning process and properly implemented at BNL prior to commencement of work. Issuance of this Enforcement Letter reflects DOE's decision to not pursue further enforcement activity against BSA at this time. In coordination with the DOE's Office of Science, the Office of Enforcement will continue to monitor BSA's efforts to maintain a safe and healthful workplace.

This letter imposes no requirements on BSA, and no response is required. If you have any questions, please contact me at (301) 903-4033, or your staff may contact Robert Hailstone, Director, Office of Worker Safety and Health Enforcement, at (301) 903-0100.

Sincerely,

A handwritten signature in black ink that reads "Kevin L. Dressman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kevin L. Dressman

Director

Office of Enforcement

Office of Enterprise Assessments

cc: Robert Gordon, SC-BHSO
Edward Sierra, Brookhaven Science Associates