Department of Energy
Washington, DC 20585

October 23, 2012

Mr. Sam D. Brown
General Manager
On Computer Services, LLC
217 Metro Drive
Terrell, Texas 75160

WEL-2012-03

Dear Mr. Brown:

This letter refers to the Office of Health, Safety and Security's Office of Enforcement and Oversight investigation into the facts and circumstances associated with the January 27, 2011, electrical shock suffered by an On Computer Services, LLC (On Computer Services) technician while servicing a Liebert uninterruptible power supply (UPS) system in Technical Area 55, building 47, at the Los Alamos National Laboratory (LANL). On Computer Services is under contract to Los Alamos National Security, LLC (LANS), the management and operating contractor for LANL.

On February 23, 2011, LANS reported the worker safety and health noncompliances associated with this event in the Department of Energy's (DOE) Noncompliance Tracking System (NTS) in report NTS--LASO-LANS-LANL-2011-0002, *TA-55 UPS Battery Shock*. DOE provided the results of its investigation to On Computer Services in an Investigation Report dated January 20, 2012. On Computer Services provided a written response to the Investigation Report on March 14, 2012. DOE convened an enforcement conference with On Computer Services representatives via telephone on March 20, 2012, in order to discuss the report's findings and the written response. Representatives from the National Nuclear Security Administration (NNSA) and the NNSA Los Alamos Site Office also participated in the call.

The Office of Enforcement and Oversight is issuing this enforcement letter to express concerns with On Computer Services' electrical safety program, specifically in the areas of electrical hazard assessment and abatement and worker training. The electrical shock event revealed potential violations of 10 C.F.R. Part 851, *Worker Safety and Health Program* requirements and its enforceable standards, including 29 C.F.R. Part 1910, *Occupational Safety and Health Standards,* and National Fire Protection Association (NFPA) standard 70E, *Standard for Electrical Safety in the Workplace* (2004).

DOE has concluded that On Computer Services did not appropriately identify in the Integrated Work Document (IWD) and Safety Work Plan the work tasks, associated

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hazards, and preventive measures applicable to the maintenance and inspection of the Liebert UPS system. Specific examples include the following:

- On Computer Services did not assess the hazards associated with the design limitations of the Liebert UPS cabinet and document those hazards in the IWD and Safety Work Plan. On Computer Services was aware of the Liebert UPS cabinet configuration limitations and failed to mitigate the potential hazards associated with those limitations.

- On Computer Services did not incorporate in the IWD and Safety Work Plan the fire and battery safety precautions from the Liebert UPS Operation and Maintenance Manual.

- On Computer Services did not identify in the Safety Work Plan all required personal protective equipment for the applicable hazard/risk category in accordance with NFPA 70E. The Plan did not identify the use of voltage-rated gloves prescribed in NFPA 70E.

- On Computer Services did not ensure that the electrical protective gloves used during the UPS preventive maintenance operation were appropriate to accommodate the work area limitations of the Liebert UPS system.

- On Computer Services did not prepare and use an energized electrical work permit (EEWP) for the UPS maintenance procedure in accordance with NFPA 70E for work on or near exposed electrical hazards. The Safety Work Plan did not identify the EEWP as a requirement.

- On Computer Services did not ensure that the safety manager and technician thoroughly understood all requirements and expectations associated with the work control documents for UPS maintenance.

During the enforcement conference, you stated that On Computer Services employees receive comprehensive training on electrical and non-electrical hazards at the company's headquarters facility in Terrell, Texas. You also mentioned that all company employees receiving training are aware of the construction and operation of serviced equipment. During the investigation, DOE reviewed work control documents that showed that the technician was a member of the activity hazard analysis team and signed the applicable IWD developed by your company's safety manager. Your written response to the Investigation Report indicated that the technician failed to follow the IWD steps as expected, and he did not properly implement the UPS maintenance procedure in accordance with training from the company and the UPS manufacturer.

Based on an examination of the facts, DOE concludes that On Computer Services did not perform the maintenance activity in accordance with the work controls in the IWD. Instead, On Computer Services used a deficient Safety Work Plan, past

company procedures and practices, including a vaguely worded document entitled *Schedule Battery Maintenance Procedures,* and the use of a bare hand to complete the maintenance steps. Furthermore, On Computer Services personnel indicated during onsite interviews that removing insulating gloves to perform battery maintenance was standard industry practice. However, NFPA 70E does not permit the practice for work on or near exposed energized conductors or circuit parts. As a result of these deficiencies, the technician received a high voltage direct current electrical shock.

DOE acknowledges the corrective actions implemented by On Computer Services that were incorporated into the broad action plan reported by LANS in the NTS report. Since the electrical shock event, On Computer Services has reviewed and substantially strengthened its worker electrical safety program; updated and republished company safety procedures and practices related to UPS maintenance operations; audited and inventoried company-issued safety equipment; and retrained personnel, as part of its corrective action plan. Based on these factors, DOE is electing to exercise discretion and not pursue enforcement action against On Computer Services in this matter. DOE, including NNSA, will continue to closely monitor On Computer Services' initiatives to improve worker safety-related performance at any of the DOE sites where work subject to the requirements of 10 C.F.R. Part 851 is performed.

No response to this letter is required. If you have any questions, please contact me at (301) 903-2178, or your staff may contact Mr. Kevin Dressman, Director, Office of Worker Safety and Health Enforcement, at (301) 903-5144.

Sincerely,

John S. Boulden III
Director
Office of Enforcement and Oversight
Office of Health, Safety and Security

cc: Charles F. McMillan, LANS
Marjorie Gavett, LANS
Kevin Smith, LASO