



Department of Energy

Washington, DC 20585

February 22, 2016

Mr. James L. Holt
President
National Security Technologies, LLC
P.O. Box 98521, NSF001
Las Vegas, Nevada 89193-8521

WEL-2016-01

Dear Mr. Holt:

The Office of Enterprise Assessments' Office of Enforcement has completed an evaluation of a chemical waste drum fire at the National Nuclear Security Administration's Nevada National Security Site (NNSS) on June 24, 2015, as reported by National Security Technologies, LLC (NSTec) into the Department of Energy's (DOE) Noncompliance Tracking System under NTS--NSO- - NST-NNSS-2015-0008. An Office of Enforcement fact finding meeting was held on October 28, 2015, in Las Vegas, Nevada, to confirm DOE's understanding of the facts and circumstances related to the event, which resulted from improper storage of drums containing potassium nitrate and potassium chlorate at the Nonproliferation Test and Evaluation Complex's (NPTEC) West Storage Pad. During the meeting, NSTec conveyed additional information on corrective actions accomplished following a June 13, 2014, drum explosion at NPTEC.

Based on the information identified after the 2014 drum explosion event, NSTec did not effectively manage chemicals in a safe and compliant manner, including the disposition of legacy chemicals. In response to the 2014 drum explosion, NSTec initiated operational enhancements to address the chemical management deficiencies and approved the relocation of excess hazardous chemicals from locations throughout NNSS to the West Storage Pad. However, the 2015 drum fire revealed continuing weaknesses in NSTec's chemical safety training and hazardous chemicals management processes. Both events resulted from improper storage of hazardous chemicals and a lack of understanding regarding storage and environmental factors that affect chemical stability. These deficiencies unnecessarily exposed NSTec workers to chemical and physical hazards during material handling, storage, and disposal activities.

The drum involved in the 2014 explosion was stored under adverse environmental conditions and had exceeded its shelf life, forming explosive organic peroxide. The drums involved in the 2015 event contained potassium nitrate and potassium chlorate. They were stored on an uncovered pad, exposed to the sun, and reached temperatures well in excess of those identified by the safety data sheets (SDS) for



the respective chemicals. Furthermore, NSTec did not account for the chain of custody and potential material contamination by combustible material prior to storage. Both chemicals are known to thermally decompose when exposed to heat and are incompatible with combustible materials.

Based on the foregoing concerns, increased NSTec management attention is warranted to achieve and sustain compliance with the hazard assessment and control and training requirements in 10 C.F.R. Part 851, *Worker Safety and Health Program*. The Office of Enforcement has elected to issue this Enforcement Letter to convey DOE's feedback on expectations for hazardous chemical storage and SDS training. Issuance of this Enforcement Letter reflects DOE's decision to not pursue further enforcement activity against NSTec at this time. In coordination with NNSA, the Office of Enforcement will continue to monitor NSTec's efforts to effectively manage hazardous chemicals at NNSA.

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

Sincerely,



Steven C. Simonson
Director
Office of Enforcement
Office of Enterprise Assessments

cc: Steven Lawrence, NA-NV
Brian Barbero, NSTec