



Department of Energy
Washington, DC 20585

November 2, 2018

Mr. Robert Wilkinson
President
Mission Support Alliance, LLC
2490 Garlick Boulevard
P.O. Box 650
Richland, Washington 99352

NEL-2018-01

Dear Mr. Wilkinson:

The Office of Enterprise Assessments' Office of Enforcement has completed an evaluation of inadequacies in the implementation of software quality assurance as reported into the Department of Energy's (DOE) Noncompliance Tracking System under NTS-EM-RL-MSA-GENERAL-2018-0005500, *MSA has not adequately developed and implemented a Software Quality Assurance (SQA) Program*, dated January 19, 2018. Based on this evaluation, the Office of Enforcement identified concerns that warrant management attention by Mission Support Alliance, LLC (MSA) related to the implementation of 10 C.F.R. Part 830, Subpart A, *Quality Assurance Program*.

The specific concern is that DOE oversight was necessary to identify that MSA had not adequately developed and implemented a software quality assurance (SQA) program as required by the DOE approved quality assurance program (QAP). Title 10 C.F.R. § 830.122, Criterion 3, requires contractors to identify, control, and correct processes that do not meet established requirements. Conducting work in accordance with the QAP is required by 10 C.F.R. 830.121.

In May 2017, the DOE Richland Operations Office and Office of River Protection performed a joint audit to evaluate the adequacy and effectiveness of MSA's SQA process used in site-wide applications. This audit identified a programmatic failure in the SQA area where significant omissions and inadequacies were found in procedures, implementation, and training. This resulted in a finding that the MSA SQA program is inadequate. The audit identified two additional findings that MSA did not meet requirements for timely revision, completeness, and/or accuracy of controlled documents and that work that could impact nuclear safety was performed without documented instructions and procedures.

MSA completed its causal analysis for the inadequacies in August 2017. The root cause was that MSA did not have adequate staffing at the field and programmatic levels with the necessary skills and proficiency to adequately establish program written direction, to ensure roles and responsibilities were understood to complete the required Software Life Cycle Documentation, or to provide management

oversight ensuring compliant program implementation. In addition, the following contributing causes were also identified:

1. Legacy SQA conditions were not identified or addressed.
2. There is no formal SQA training for Responsible Managers, Software Owners, or Subject Matter Experts.
3. Previous corrective actions were insufficient to prevent noncompliant conditions and were not recognized for their collective significance against the SQA Program.
4. No management oversight to ensure program health.
5. Unclear roles and requirements.

The Office of Enforcement reviewed the resulting corrective actions and finds that the short term actions are generally reasonable and, if well executed, should result in an effective SQA program. However, the corrective actions had weaknesses with respect to long term actions to maintain the effectiveness of the SQA program over time (e.g., limited duration trending and verification activities). Additionally, the corrective actions did not include actions that ensure that quality issues are identified by the contractor without having to rely on DOE oversight.

The actual nuclear safety consequences of these inadequacies are currently low, but DOE views seriously any programmatic failure that has the potential to impact nuclear safety. In this instance, if MSA does not implement and maintain an effective SQA program, it could have a negative impact on nuclear safety at the Hanford Site. If MSA does not find future issues without DOE assistance, these potential negative impacts could be exacerbated.

The Office of Enforcement has elected to issue this Enforcement Letter to convey concerns with these inadequacies in the implementation of quality assurance requirements. Issuance of this Enforcement Letter reflects DOE's decision to not pursue further enforcement activity against MSA at this time. In coordination with the Office of Environmental Management, the Office of Enforcement will continue to monitor MSA's efforts to improve nuclear safety performance.

This letter imposes no requirements on MSA and no response is required. If you have any questions, please contact me, at (301) 903-7707.

Sincerely,



Kevin L. Dressman
Acting Director
Office of Enforcement
Office of Enterprise Assessments

cc: Doug Shoop, RL
Wendy Robbins, MSA