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2. REPORT TYPE

Final Report

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May 20 2019 - Nov 19 2019

4. TITLE AND SUBTITLE

Reverse Engineering Technical Data Packages for Development of Alternate Sources of Supply for DLA Nuclear Enterprise Support Office (NESO) NSN: 4810-01-269-4808 Piston Valve

5a. CONTRACT NUMBER

SP4701-19-P-0043

5b. GRANT NUMBER

8506501570

5c. PROGRAM ELEMENT NUMBER**6. AUTHOR(S)**

Buttles, Schluter-Fisk, Kessler

5d. PROJECT NUMBER

DLA-183-006 Phase I

5e. TASK NUMBER

none

5f. WORK UNIT NUMBER

none

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Bailey Tool Manufacturing Co.

DBA

600 W. Belt Line Road

Lancaster, TX 75146-3019

**8. PERFORMING ORGANIZATION
REPORT NUMBER****9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)**

DCSO Philadelphia

700 Robbins Ave.

Philadelphia, PA 19111

10. SPONSOR/MONITOR'S ACRONYM(S)
DCSO**11. SPONSORING/MONITORING
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13. SUPPLEMENTARY NOTES

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14. ABSTRACT

Contractor proposed to engage in DLA's effort to expand elements of the National Technical Industrial Base through an exercise in preparation of Source Approval Request presentations to gain experience in qualifying for competition and award on NSNs of interest to Government. The purpose of this exercise to succeed in expanding the supply base in order to improve competition and increase product availability for various weapon system programs of particular interest to DOD in support of the Warfighter. Contractor will prepare and submit SAR document components for review and improvement along with accompany Gantt charts and other program information of importance to the procurement and program management functions in the DLA operations network. As necessary, Contractor will propose actual production of components in question and produce FAT parts and assemblies as required by agreement. Focus of the effort is to prepare Contractor to participate in future solicitations where specific weapon system requirements are competed in order to secure production for Warfighter efforts and to develop a beneficial relationship with DLA components.

15. SUBJECT TERMS

SAR, component, weapon system,

16. SECURITY CLASSIFICATION OF:**a. REPORT**
U**b. ABSTRACT**
U**c. THIS PAGE**
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UU**18. NUMBER
OF PAGES****19a. NAME OF RESPONSIBLE PERSON**
John Buttles**19b. TELEPHONE NUMBER (include area code)**
469 916 1603

Contract Summary Report, Final
SBIR Topic DLA-183-006 Contract SP4701-19-0043
Piston, Valve NSN 4810-01-269-4808
Reporting Period: May 20 2019 - Nov 19 2019

Project Summary:

Contractor proposed to engage in DLA's effort to expand elements of the National Technical Industrial Base through an exercise in preparation of Source Approval Request presentations to gain experience in qualifying for competition and award on NSNs of interest to Government. The purpose of this exercise to succeed in expanding the supply base in order to improve competition and increase product availability for various weapon system programs of particular interest to DOD in support of the Warfighter. Contractor will prepare and submit SAR document components for review and improvement along with accompany Gantt charts and other program information of importance to the procurement and program management functions in the DLA operations network. As necessary, Contractor will propose actual production of components in question and produce FAT parts and assemblies as required by agreement. Focus of the effort is to prepare Contractor to participate in future solicitations where specific weapon system requirements are competed in order to secure production for Warfighter efforts and to develop a beneficial relationship with DLA components.

Summary of Work Accomplished:

Under this Phase I effort, Contractor accomplished the following activities designed to lead to qualification for submitting SAR packages in response to DOD requests for competition on NSNs of interest to Government and successful award after consideration by contracting authorities:

1. Review of initial requirements from DLA customer to assess project requirements and fulfillment of project goals, including resolution of any obsolescence, contradictions, inaccuracies that would make preparing manufacturing data and ultimate performance of manufacturing requirements in compliance with plans either difficult or impossible.
2. Evaluation of Technical Data Package for review of product requirements and preparation of manufacturing control plans and accompanying data required to competently propose a response to procurement actions from DLA and related DOD customers.
3. Preparation of program management reports and documents, including monthly reports, Gantt charts, supplementary CAD drawings, models, engineering views and support information to accompany preparation of control plans and manufacturing data to be assembled into Source Approval Request packages to be submitted for review.
4. Preparation of SAR document package to be used as a model for subsequent submissions in procurement opportunities with DLA and other DOD components as opportunities arise.
5. Submit SAR to an Engineering Source Activity agent for review and make corrections, modifications and adjustments as recommended.

6. Prepare material and process to manufacture components in response to directions from program officers as instructed periodic meetings. Ultimately, manufacturing of NSN components under Phase I project was not initiated.

Conclusion and Recommendations:

Contractor successfully completed a SAR package for Piston Valve NSN 4810-01-269-4808 in concert with Government requirements and ESA corrections and guidance in an effort to gain proficiency for submitting SARs to engineering authorities in various DOD components reviewing SAR packages for possible approval for procurement actions.

Contractor has good manufacturing skillset in manufacturing process development, control document preparation, component manufacturing and related quality functions. Contractor is lacking in project management document preparation, including report writing and initial marketing presentation material found useful by reviewers in the procurement functions. Contractor added personnel to fill this void which succeeded but report writer experienced a family medical emergency and left Contractor's employment. It is recommended that Contractor hire qualified replacement for report writer to augment this ability and allow the manufacturing proficiency clearly in evidence to extend into written communications to customers and preparation of reports that are in some cases the only contact Contractor will have with DOD engineering authorities.

