

W56HZV-05-R-BAA1 Topic #17

Revised by Amendment 0039, issued 21 April 2009

Revised by Amendment 0037, issued 07 April 2009

Added by Amendment 0031, issued 05 March 2009

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Topic #17: Alternative Fuels and their Impacts on Systems Performance

OBJECTIVE:

Under this topic, the Government invites proposals for projects that would develop and demonstrate a fully integrated waste-to-fuel conversion system that converts biomass waste products into a synthetic iso-paraffinic kerosene (SPK) using the Fischer-Tropsch (F-T) conversion process that meets the current military fuel specification, MIL-DTL-83133F, Appendix A, as a blending stock for creating synthetic fuel blends (JP-8 type).

The specification is available for download at the following URL:

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=33505

DESCRIPTION:

Following the instructions of Executive Order 13423, the Army has assumed the tasks of: 1) reducing the need for petroleum-based fuels, and 2) operating their bases in a more environmentally friendly manner. The job of developing synthetic fuels has been the responsibility of TARDEC through the Assured Fuels team. Combining this work with the best available processes for the conversion of waste products into fuel brings the Army into compliance with the second of the tasks as listed in Executive Order 13423 (http://www.ofee.gov/eo/EO_13423.pdf).

System specifications:

- a. The system must be capable of converting 500 pounds of biomass waste materials into a minimum of 5 gallons of SPK per day.
- b. The system technology employed must demonstrate a greater than 5x improvement in volumetric productivity over conventional F-T technology.
- c. The system must be capable of producing the 5-gal of SPK per day without the use of any process recycle streams.
- d. The final product must conform to the current military fuel specification, MIL-DTL-83133F, Appendix A.
- e. The system should be no larger than 17' x 25' x 25', there is additional limited space available for equipment to be installed outside if necessary.
- f. The feedstock for the system will be typical Air Force Base waste materials: Paper, plastics, packaging materials, and waste food.

Once the process is shown to be capable:

- a. It must be shipped to and re-installed in the Assured Aerospace Fuels Research Facility (AAFRF) at Wright-Patterson AFB (WPAFB), OH.
- b. Operators must be trained in its operation.

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- c. It must be turned over to WPAFB AAFRF.

PROPOSALS THAT REFLECT A “PARTIAL SOLUTION” TO THE TECHNICAL OBJECTIVE ARE NOT ACCEPTABLE. THE GOVERNMENT WILL CONSIDER ONLY THOSE PROPOSED PROJECTS THAT ADDRESS ALL ELEMENTS OF THE OBJECTIVE.

ESTIMATED MAXIMUM FUNDING AVAILABLE:

- a. Period of Performance: **Maximum** of 18 months.
- b. Estimated Funding Available: \$3.7M.
- c. The Government anticipates making a single award as a result of this topic.

MILESTONE SCHEDULE:

- a. Informal Talks Timeframe: 5 March 2009 – 6 April 2009
- b. Electronic Copies of Proposals Due by 7 May 2009

Special Proposal Instructions:

After 13 February 2009, all proposals must be submitted using the ASFI Bid Response System (BRS), which may be accessed at <https://acquisition.army.mil/asfi/default.cfm>.

You will find Topic 17 for proposal submission by searching Contracting Opportunities for "TARBAATOPIC17." As reflected by the results of this search, proposals for Topic 17 may be uploaded via the ASFI BRS at the following URL:

https://acquisition.army.mil/asfi/solicitation_view.cfm?psolicitationnbr=TARBAATOPIC17

- c. Estimated Award Date: 18 June 2009

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