HDTRA1-08-CBDIF-CBT-BAA Amendment 01

The purpose of this amendment is to change Broad Agency Announcement HDTRA1-08-CBDIF-CBT-BAA as follows.

1. Remove Section 1 (Major Milestones) of Attachment 8 and replace with revised Section 1 dated 4 Feb 2008.

2. Section 2 (Proposal Topics) of Attachment 8 is hereby revised incorporating an additional topic number CBT-09-PHM-08 entitled: " Solid Oxidants for Chemical and Biological Warfare Agent Hazard Mitigation."

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

ATTACHMENT 8

MAJOR MILESTONES AND PROPOSAL TOPICS

1. MAJOR MILESTONES (REVISED 4 February 2008)

SCHEDULE FOR THE FY2008 CBDIF AND THE FY2009 PHYSICAL SCIENCE & TECHNOLOGY NEW INITIATIVES	
DATE	**EVENT**
29 January 2008	BAA announced in FedBizOpps and Grants.gov websites
29 January 2008	Begin registration at the DTRA proposal submission website
31 January 2008	DTRA proposal submission website opens for receipt of Quad Chart/White Paper
14 February 2008	Deadline to submit questions
19 February 2008	Questions and Answers posted at FedBizOpps
27 February 2008 No Later Than 2:00pm ET	Phase I proposal receipt deadline (Quad Chart/White Paper)
25 March 2008	Phase II proposals invited; non-selection notifications will follow within 2 weeks.
28 April 2008 No Later Than 2:00pm ET	Phase II proposal receipt deadline
31 July 2008	Announcement of Apparent Successful Phase II Offerors; non-selection notifications will follow within 2 weeks.
On or about 15 October 2008	Estimated First Award Date ("on or about" is used since this is an estimate)
Awards expected to begin 90-120 days following initiation of negotiations [1, 2]	

Notes:

1.Actual award dates will vary based on complexity, statutory requirements, quality of proposal, pricing considerations, DCAA audits of proposed rates, type of instrument, number of awards, and other considerations. All dates are subject to change.

2: Awards will be made subject to the availability of funds. All offerors will be invited to begin negotiations upon notification of intent to award, and awards will be made as funds are available.

Addition to HDTRA1-08-CBDIF-CBT-BAA, Attachment 8, Major Milestones and Proposal Topics

The following topic is added to Attachment 8. All other topics as listed in the BAA remain as stated.

Topic: CBT-09-PHM-08
Title: Solid Oxidants for Chemical and Biological Warfare Agent Hazard Mitigation
Develop a highly effective solid phase oxidant system to destroy threat agents such as chemical warfare agents (CWAs) and biological warfare agents (BWAs) (initial focus should be applicability of the technology to mustard, V and G agents, and *b. anthracis* endospores). Currently, liquid phase or solid phase oxidants obtainable on the open market are not robust enough to meet all of the interrelated property requirements:

1) Efficacy: broad spectrum of use.
2) Material Compatibility: compatible with plastics, fabrics/fibers, introduce minimal or no decrement in equipment performance, compatibility with existing CB detection equipment, and leaves no undesirable residues.
3) Safety: must be safe to both personnel and the environment, should not require specialized protective equipment to use.
4) Ease of Use: efficient cycle time, ease of application, complete dissolution in five minutes, remains highly efficacious when using impaired water, hard or brine water; and operationally usable at temperature extremes.
5) Storage/Shelf Life: remain robust under extreme storage conditions/loss of efficacy with time, temperature and humidity.
6) Transportability (easily transportable via air, land or sea): currently, liquid hydrogen peroxide (HP) and organic peroxides have transportation limitations by size and percentage content.
7) Solubility of Solid Phase Oxidizers or Peroxide Activators: complete dissolution at ambient temperature with minimum agitation in an aqueous based environment.

From previous studies, it has been shown that 8% hydrogen peroxide achieves the required hydrolysis against CWAs, but oxidation of blister agents (sulfur mustard) does not achieve the required efficacy of threat agent oxidation without the addition of an activator. Peracids have shown the required hydrolysis against CWAs over a range of concentrations but selective oxidation of sulfur mustard to the sulfoxide is not always reproducible. The ideal solid phase oxidation system needs to be developed with a broad-based approach and usable over a broad range of operational temperatures. The oxidation system needs to be compatible with military relevant materials such as metals, polymers, coatings, rubber, elastomers, and sorbtive components. In addition, a system should be easily disposed of without the generation of hazardous wastes that requires special disposal procedures. Ideally, the oxidizer system and/or the oxidizing activator will be homogeneously dissolved within five minutes with minimum agitation at ambient temperature in an aqueous based environment. The ideal oxidation system should be a powder that is both soluble and effective over the greatest possible temperature range from basic cold (-25 deg F/-32 deg C) to hot (120 deg F/49 deg C), and not produce harmful or toxic vapors during storage temperatures [basic cold (-27 deg F/-33 deg C) to hot (160 deg F/71 deg C)]. Accelerated lifetime studies should indicate oxygen loss less

than 1% over a 90-day test period. The proposed research must include reaction kinetics as a function of electrolyte conditions, pH, and temperature. Research proposals must target the development, optimization and demonstration of a highly effective solid phase oxidant system. National or international industrial collaborations are encouraged. The above technical requirements are not absolute, but should be considered in the trade-space of the final product. The approach should address an understanding of the technical limitations vice operational trade-offs, and the potential to meet the largest extent of the requirements enumerated above. Theoretical/experimental approaches investigating a wide-spectrum of combinations such as a library or high throughput testing via screening, or approaches to research methodology should be considered.