

Todd Stevenson

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 2

2. AMENDMENT/MODIFICATION NO.

3. EFFECTIVE DATE

4. REQUISITION/PURCHASE REQ. NO.

5. PROJECT NO. (if applicable)

0016

07/28/2009

6. ISSUED BY

CODE

FMPS

7. ADMINISTERED BY (If other than Item 6)

CODE

FMPS

CONSUMER PRODUCT SAFETY COMMISSION
DIV OF PROCUREMENT SERVICES
4330 EAST WEST HWY
ROOM 517
BETHESDA MD 20814

CONSUMER PRODUCT SAFETY COMMISSION
DIV OF PROCUREMENT SERVICES
4330 EAST WEST HWY
ROOM 517
BETHESDA MD 20814

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

(x) 9A. AMENDMENT OF SOLICITATION NO.

THE UNIVERSITY OF ALABAMA
801 UNIVERSITY BLVD
BOX 870104
TUSCALOOSA AL 35487-0104

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO.
CPSC-S-06-0079

10B. DATED (SEE ITEM 13)

CODE

FACILITY CODE

09/26/2006

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods. (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Net Increase:

\$99,580.00

09 PS EXHR 4400 23336 252B

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

X FAR 52.212-4(c) and mutual agreement between parties

E. IMPORTANT: Contractor is not is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: [REDACTED]

Modification 0015 to contract CPSC-S-06-0079 is hereby issued to provide for Task Order 0008: This task is divided into two parts and shall be accomplished as indicated below.

a. The first part is to direct the University of Alabama to train CPSC staff on the operation of engine control unit (ECU) that is integrated on the low CO emission prototype portable generator built under the existing Task Order 0003.

b. The second part is to develop, install and test an automatic engine shutoff feature on a new prototype generator.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Donna Hutton

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
THE UNIVERSITY OF ALABAMA

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>The conditions of this task are represented by the attached statement of work and the existing terms and conditions of the contract. The contractor's proposal for this task is incorporated in its entirety. The contract completion date remains unchanged at December 15, 2009.</p> <p>As a result of this Task Order 0008, the contract is increased by \$99,580.00 from \$430,150.00 to a new total of \$529,730.00</p> <p>Add Item 0008 as follows:</p>				
0008	<p>Task Order 0008 to provide training, develop, install and test an automatic engine shutoff feature on a new prototype generator as indicated in the attached statement of work.</p>	1	EA	99,580.00	99,580.00

A. Background

The purpose of this document is to add Task Order 0008 to the existing contract between the U.S. Consumer Product Safety Commission (CPSC) and the University of Alabama (CPSC-06-0079). This task is divided into two parts. The first part is to direct the Contractor to train CPSC staff on the operation of engine control unit (ECU) that is integrated on the low CO emission prototype portable generator the Contractor has built under the existing Task Order 0003. The second part is to add new work to Task Order 0003, which is to develop, install and test an automatic engine shutoff feature on a new prototype generator.

B. Statement of Work

1. As stated above, Task Order 0008 is divided into two parts. Under the first part, the contractor shall provide training to CPSC staff on the operation of the ECU that is integrated on the low CO emission prototype portable generator the Contractor has built under the existing Task Order 0003. From this training, CPSC staff desires to gain a working knowledge of how the ECU functions and how to make adjustments for desired engine operation. The contractor shall provide to CPSC all specialized hardware and software necessary for communication with the ECU, any of Delphi's documentation on the ECU, as well as any technical details the Contractor has acquired regarding ECU programming and hardware designs. Training shall be conducted at CPSC, either before or after testing of the shutoff feature is conducted at the National Institute for Standards and Technology (NIST) and/or CPSC. The Contractor shall plan to be on-site for a duration of possibly up to two months, which may or may not occur in one continuous period.
2. The second part of Task Order 0008 is to add new work to Task Order 0003. The new work consists of the following:
 - 2.1. The Contractor shall design the shutoff feature to shut the engine off when the ambient oxygen level around the operating generator drops below, but as near as reasonably possible to, 20.9%.
 - 2.2. To aid in the development of the algorithm that will trigger engine shut off, the Contractor shall conduct a series of tests in the Contractor's test enclosure with the prototype generator operating under various loads at at least 2 different equilibrium, if possible, oxygen levels in the test enclosure. Different equilibrium oxygen levels may be achievable by adjusting the opening of the enclosure's doors and any louvers included on it. The Contractor shall record ECU data as well as the emission data during these tests and provide all test data to CPSC.
 - 2.2.1. During the development tests, the prototype generator shall be equipped with a muffler with either no catalyst installed or a catalyst that has been previously used in order to protect the final-configuration catalyst from

possible damage. When there is reasonable confidence that the catalyst will not be damaged during testing in the low oxygen environment, the muffler with the final-configuration catalyst can be installed.

2.3. With the final-configuration catalyst installed on the prototype generator, the Contractor shall emission test it as described in Modification 10 for Task Order 0002. As stated in that document, emission testing will be conducted at each of the loads on the generator that reasonably reflects 100% sustainable generator load, 75% engine load, 50% engine load, 25% engine load, 10% engine load, and idle. To attain the 75%, 50%, 25%, and 10% engine loads with the engine installed in the generator, electrical loads as close as reasonably possible to 5.3 kW, 3.45 kW, 1.53 kW, and .53 kW, respectively, shall be applied through the generator's 240-volt receptacle. The emission data shall be converted to mass emission rates using the fuel flow method described in EPA 40 CFR § 90.419. The emission results shall be compared to those obtained on the Contractor's two 5 kW prototype generators configured with the stoichiometric strategy, with the expectation that the emission results will be reasonably comparable.

2.4. The Contractor shall be on-site during government (NIST and/or CPSC) testing of the shutoff feature in order to observe, assist, and make any necessary modifications to the prototype in order for the engine to perform as designed and the shutoff feature to actuate at oxygen levels, regardless of generator loading, as reasonably close to, but less than, 20.9%. This shall occur over the same two-month duration discussed above for the ECU training. During this time, the Contractor shall also train CPSC staff on how the shutoff feature functions and how to make adjustments for desired operation.

C. Period of Performance

Performance of work shall begin on the effective date of this contract. The contract in its entirety is hereby extended to December 15, 2009.

All other terms and conditions of the existing contract remain unchanged.

D. Delivery

Based on the new work for Task Order 0003, the Delivery section described in Modification 0010 is hereby changed to the following items which must be performed or delivered in accordance with the following schedule:

ITEM	QUANTITY	DELIVERY & PERFORMANCE
1) Teleconferences	24	Weekly
2) Monthly status report. See paragraph C.3 of Mod 10 Task Order 0003.	6	Monthly

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| <p>3) Deliver the prototype generator, the documentation necessary to operate it and to enable/disable the shutoff feature, drawings and specifications of all the components used to produce the prototype and the safety shutoff feature, and any software programs and source code used or developed in conjunction with the implementation of the safety feature.
See paragraph B.6 of Mod 10 Task Order 0003.</p> | <p>1</p> | <p>No later than ninety (90) calendar days prior to the end of the period of performance.</p> |
| <p>4) The contractor shall provide training to CPSC staff on the operation of the ECU.</p> | <p>1</p> | <p>Commencing no later than ninety (90) calendar days prior to the end of the period of performance and ending approximately 30 calendar days prior to the end of the period of performance.</p> |
| <p>5) The contractor shall provide to CPSC all specialized hardware and software necessary for communication with the ECU, any of Delphi's documentation on the ECU, as well as any technical details the Contractor has acquired regarding ECU programming and hardware designs.</p> | <p>1</p> | <p>No later than ninety (90) calendar days prior to the end of the period of performance.</p> |
| <p>6) The Contractor shall be on-site during government (NIST and/or CPSC) testing of the shutoff feature in order to observe, assist, and make any necessary modifications to the prototype in order for the engine and shutoff feature to perform as desired by CPSC.</p> | <p>1</p> | <p>Commencing no later than ninety (90) calendar days prior to the end of the period of performance and ending approximately 30 calendar days prior to the end of the period of performance.</p> |

The Contractor shall train CPSC staff on how the shutoff feature functions and how to make adjustments for desired operation.

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| 7) Draft written report
See paragraph C.3 | 1 electronic copy | No later than thirty-five (35) calendar days prior to the end of the period of performance for staff review |
| 8) Final written report
See paragraph C.4 | Original and five (5) copies and an electronic copy | No later than ten (10) calendar days prior to the end of the period of performance |