SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS

OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER	PAGE 1 OF
91110 40960315	26

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
			N65540-04-Q-0287	04-JUL-09

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER (No Collect Calls)	8. OFFER DUE DATE/ LOCAL TIME
	DAVID DENNISON	215-897-1494 215-897-7059 (FAX)	0400 04-JUL-23/ PM

9. ISSUED BY — CODE N65540

CONTRACTING OFFICER
NSWC CARDEROCK DIVISION
5001 S. BROAD STREET
PHILADELPHIA PA 19112-1403

ATTN: DAVID DENNISON 215-897-1494

10. THIS ACQUISITION IS

- [ ] UNRESTRICTED
- [X] SET ASIDE: 100 % FOR
  - [X] SMALL BUSINESS
  - [ ] SMALL DISADV. BUSINESS
  - [ ] 8(A)

SIC: 3444
SIZE STANDARD: 500

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
- [ ] SEE SCHEDULE

12. DISCOUNT TERMS

- [ ] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING

14. METHOD OF SOLICITATION
- [X] RFQ [ ] IFB [ ] RFP

15. DELIVER TO — CODE N65540

RECEIVING OFFICER,FISC,
NSWC CARDEROCK DIVISION
1601 LANGLEY AVENUE
PHILA. PA 19112-5051
ATTN: NAVAL BUSINESS CENTER

16. ADMINISTERED BY — CODE N65540

17a. CONTRACTOR/ OFFEROR CODE ____ FACILITY CODE ____

TELEPHONE NO. - -

- [ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18a. PAYMENT WILL BE MADE BY — CODE ____

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED
- [X] SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
0001	REQN. NO. 91110 /40960315 ITEM NAME: GAS TURBINE EXHAUST DUCTING SYSTEM IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS (Attach Additional Sheets as Necessary)	1	LT		

25. ACCOUNTING AND APPROPRIATION DATA

26. TOTAL AWARD AMOUNT (For Govt. Use Only)

- [ ] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3, AND 52.212-5 ARE ATTACHED. ADDENDA [ ] ARE [X] ARE NOT ATTACHED.
- [ ] 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED.

- [ ] 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN ____ COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

29. AWARD OF CONTRACT: REFERENCE ____
- [ ] OFFER DATED ____. YOUR OFFER ON SOLICITATION (BLOCK 5). INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR

31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)

30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)	30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT)	31c. DATE SIGNED

32a. QUANTITY IN COLUMN 21 HAS BEEN
- [ ] RECEIVED [ ] INSPECTED [ ] ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED

32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE — 32c. DATE

33. SHIP NUMBER — [ ] PARTIAL [ ] FINAL

34. VOUCHER NUMBER

35. AMOUNT VERIFIED CORRECT FOR

36. PAYMENT
- [ ] COMPLETE [ ] PARTIAL [ ] FINAL

37. CHECK NUMBER

38. S/R ACCOUNT NUMBER

39. S/R VOUCHER NUMBER

40. PAID BY

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT

41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER — 41c. DATE

42a. RECEIVED BY (Print)

42b. RECEIVED AT (Location)

42c. DATE REC'D (YY/MM/DD) — 42d. TOTAL CONTAINERS

VENDOR:

SECTION B SUPPLIES/SERVICES

ITEM	SUPPLIES/SERVICES	QUANTITY	UI	U-PRICE	AMOUNT
0002	REQN. NO. 91110 /41826314 ITEM NAME: PRELIMINARY TECHNICAL DATA IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS	1	LT		
0003	REQN. NO. 91110 /41826319 ITEM NAME: INTERIM TECHNICAL DATA IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS	1	LT		
0004	REQN. NO. 91110 /41826320 ITEM NAME: AS BUILT DRAWINGS AND ERECTION INSTRUCTIONS IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS	1	LT		
0005	REQN. NO. 91110 /41826321 ITEM NAME: QUALITY ASSURANCE PLAN IN ACCORDANCE THE ATTACHED SPECIFICATIONS	1	LT		
0006	REQN. NO. 91110 /41826323 ITEM NAME: OPTION TEMPORARY EXHAUST GAS EXIT SECTION IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS	1	EA		

1. This Request for Quotations (RFQ) covers the establishment of a firm-fixed price purchase order for the furnishing of a Marine Turbine Generator Exhaust Ducting System and Associated Technical Data. This RFQ is issued using Simplified Acquisition Procedures pursuant to the Test Program for Certain Commercial Items in accordance with Subpart 13.5 of the Federal Acquisition Regulation (FAR).

2. The Exhaust Ducting System to be furnished shall be in accordance with the Purchase Specification Number TS050-13, Revision B, dated 1 July 2004, entitled "Purchase Specification for Main Turbine Generator (MTG) Exhaust Ducting System, which is provided as Attachments 1 to this RFQ.

3. The Government intends to make a single award to the low price technically acceptable offeror. Technical acceptability shall be determined based on Technical Compliance and Corporate Experience. In order to evaluate technical acceptability, offerors are required to submit information as part of their quotation addressing these two factors, as discussed below. A rating of Acceptable or Unacceptable shall be assigned under each of these factors, and on an overall basis. In order to be assigned an overall rating of Acceptable, an offeror must receive a rating of Acceptable in both Technical Compliance and Corporate Experience. Failure to submit adequate information will result in a quotation being rated as Unacceptable. The Government intends on making an award based on the initial quotations received. Therefore, an offeror's initial quotation should contain its best offer from both a price and a technical standpoint.

4. As indicated above, offerors must furnish the following information as part of their quotations:

TECHNICAL COMPLIANCE

In this factor, offerors shall provide a preliminary drawing of the Exhaust Ducting System it intends to furnish and other information that demonstrates the system will comply with the requirements set forth in the MTG Exhaust System Ducting Specification. In particular, the offeror must provide the following information:

a. Outline drawings of the Exhaust Ducting System as described in the MTG Exhaust System Ducting Specification and in Figures 1 and 2, showing typical lifting, support and penetration features and providing all system envelope and gas path dimensions.

b. Cross-sectional drawings illustrating typical details of the insulation and liner system for the Exhaust Ducting System Components.

c. Production Schedule: The Contractor shall provide a preliminary schedule that shows the total number of days estimated from date of contract to major milestones. Milestones should include but not necessarily be limited to:

(1) Release for manufacture
(2) Receipt of materials
(3) Fabrication Start
(4) Fabrication complete
(5) Complete preparation for shipping

d. Shell Temperature: The Contractor shall provide an estimate of the outer shell temperature while operating at the maximum gas temperature required by this specification. If above 140°F, the Contractor is to describe methods or the design that will be used to lower the outer shell temperature to less than 140°F.

CORPORATE EXPERIENCE

In this factor offerors shall provide information on their experience with the design, fabrication and manufacture of circular, rectangular and transitional ducting of double wall construction or of similar items. The offeror shall also provide information on their resources, such as facilities, equipment, personnel, quality assurance/control system, etc., that demonstrates the capability to supply the required Marine Turbine Generator Exhaust Ducting System.

5. Lists of Attachments:

1. Purchase Specification for Main Turbine Generator (MTG) Exhaust Ducting System Specification Number TS050-13, Revision B dated 1 July 2004 (23 pages)

VENDOR:

SECTION F TIME OF DELIVERY

DELIVERIES SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS

ITEM	QUANTITY	DELIVERY REQUIRED
0001	1 LT	SEE SECTION 8.0 OF SPECIFICATIONS
0002	1 LT	SEE SECTION 8.0 OF SPECIFICATIONS
0003	1 LT	SEE SECTION 8.0 OF SPECIFICATIONS
0004	1 LT	SEE SECTION 8.0 OF SPECIFICATIONS
0005	1 LT	SEE SECTION 8.0 OF SPECIFICATIONS
0006	1 EA	SEE SECTION 8.0 OF SPECIFICATIONS

52.247-34 F.O.B. DESTINATION (NOV 1991)

52.212-4 CONTRACT TERMS AND CONDITIONS--COMMERCIAL ITEMS (OCT 2003)

(a) Inspection/Acceptance. The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its post-acceptance rights--(1) Within a reasonable time after the defect was discovered or should have been discovered; and (2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(b) Assignment. The Contractor or its assignee may assign its rights to receive payment due as a result of performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727). However, when a third party makes payment (e.g., use of the Governmentwide commercial purchase card), the Contractor may not assign its rights to receive payment under this contract.

(c) Changes. Changes in the terms and conditions of this contract may be made only by written agreement of the parties.

(d) Disputes. This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) Definitions. The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.

(f) Excusable delays. The Contractor shall be liable for

default unless nonperformance is caused by an occurrence Beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) Invoice. (1) The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized,) to the address designated in the contract to receive invoices. An invoice must include--

(i) Name and address of the Contractor;

(ii) Invoice date and number;

(iii) Contract number, contract line item number and, if applicable, the order number;

(iv) Description, quantity, unit of measure, unit price and extended price of the items delivered;

(v) Shipping number and date of shipment including the bill of lading number and weight of shipment if shipped on Government bill of lading;

(vi) Terms of any discount for prompt payment offered;

(vii) Name and address of official to whom payment is to be sent;

(viii) Name, title, and phone number of person to notify in event of defective invoice; and

(ix) Taxpayer Indentification Number (TIN). The Contractor shall include its TIN on the invoice only if required elseswhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision, contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(2) Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) prompt payment regulations at 5 CFR part 1315.

(h) Patent indemnity. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) Payment. (1) Items accepted. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract.

(2) Prompt payment. The Government will make payment in

accordance with the Prompt Payment Act (31 U.S.C. 3903) and prompt payment regulations at 5 CFR part 1315.

(3) Electronic Funds Transfer (EFT). If the Government makes payment by EFT, see 52.212-5(b) for the appropriate EFT clause.

(4) Discount. In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.

(5) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(j) Risk of loss. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:

(1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or

(2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.

(k) Taxes. The contract price includes all applicable Federal, State, and local taxes and duties.

(l) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) Title. Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for

the particular purpose described in this contract.

(p) Limitation of liability. Except as otherwise provided by an express warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) Other compliances. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.

(r) Compliance with laws unique to Government contracts. The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. 327, et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986; 41 U.S.C. 265 and 10 U.S.C. 2409 relating to whistleblower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. 423 relating to procurement integrity.

(s) Order of precedence. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order:

(1) The schedule of supplies/services.

(2) The Assignments, Disputes, Payments, Invoice, Other Compliances, and Compliance with Laws Unique to Government Contracts paragraphs of this clause.

(3) The clause at 52.212-5.

(4) Addenda to this solicitation or contract, including any license agreements for computer software.

(5) Solicitation provisions if this is a solicitation.

(6) Other paragraphs of this clause.

(7) The Standard Form 1449.

(8) Other documents, exhibits, and attachments.

(9) The specification.

(t) Central Contractor Registration (CCR). (1) Unless exempted by an addendum to this contract, the Contractor is responsible during performance and through final payment of any contract for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(2)(i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in FAR subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to (A) change the name in the CCR database; (B) comply with the requirements of subpart 42.12; and (C) agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (t)(2)(i) of this clause, or fails to perform the agreement at paragraph (t)(2)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be

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other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(3) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.

(4) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the internet at http://www.ccr.gov or by calling 1-888-227-2423 or 269-961-5757.

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (MAY 2004)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clause, which is incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items: 52.233-3, Protest after Award (AUG 1996) (31 U.S.C. 3553).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: [Contracting Officer check as appropriate.]

___ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (JUL 1995), with Alternate I (OCT 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).
___ (2) 52.219-3, Notice of Total HUBZone Set-Aside (JAN 1999) (15 U.S.C. 657a).
___ (3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JAN 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).
___ (4) (i) 52.219-5, Very Small Business Set-Aside (JUNE 2003) (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).
___ (ii) Alternate I (MAR 1999) of 52.219-5.
___ (iii) Alternate II (JUNE 2003) of 52.219-5.
___ (5) (i) 52.219-6, Notice of Total Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644).
___ (ii) Alternate I (OCT 1995) of 52.219-6.
___ (iii) Alternate II (MAR 2004) of 52.219-6.
___ (6) (i) 52.219-7, Notice of Partial Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644).
___ (ii) Alternate I (OCT 1995) of 52.219-7.
___ (iii) Alternate II (MAR 2004) of 52.219-7.
___ (7) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637 (d)(2) and (3)).
___ (8) (i) 52.219-9, Small Business Subcontracting Plan (JAN 2002) (15 U.S.C. 637(d)(4)).
___ (ii) Alternate I (OCT 2001) of 52.219-9.
___ (iii) Alternate II (OCT 2001) of 52.219-9.
___ (9) 52.219-14, Limitations on Subcontracting (DEC 1996) (15 U.S.C. 637(a)(14)).
___ (10) (i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (JUNE 2003)

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(Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).

___ (ii) Alternate I (JUNE 2003) of 52.219-23.

___ (11) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (OCT 1999) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

___ (12) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (OCT 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

___ (13) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (MAY 2004)

___ (14) 52.222-3, Convict Labor (JUNE 2003) (E.O. 11755).

___ (15) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (JAN 2004) (E.O. 13126).

X (16) 52.222-21, Prohibition of Segregated Facilities (FEB 1999).

X (17) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

X (18) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212).

X (19) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

X (20) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212).

___ (21) (i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (AUG 2000) (42 U.S.C. 6962(c)(3)(A)(ii)).

___ (ii) Alternate I (AUG 2000) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).

___ (22) 52.225-1, Buy American Act--Supplies (JUNE 2003) (41 U.S.C. 10a-10d).

___ (23) (i) 52.225-3, Buy American Act--Free Trade Agreements--Israeli Trade Act (JAN 2004)(41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note), Pub. L. 108-77, 108-78).

___ (ii) Alternate I (JAN 2004) of 52.225-3.

___ (iii) Alternate II (JAN 2004) of 52.225-3.

___ (24) 52.225-5, Trade Agreements (JAN 2004) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

___ (25) 52.225-13, Restrictions on Certain Foreign Purchases (DEC 2003) (E.o.s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

___ (26) 52.225-15, Sanctioned European Union Country End Products (FEB 2000) (E.O. 12849).

___ (27) 52.225-16, Sanctioned European Union Country Services (FEB 2000) (E.O. 12849).

___ (28) 52.232-29, Terms for Financing of Purchases of Commercial Items (FEB 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

___ (29) 52.232-30, Installment Payments for Commercial Items (OCT 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

X (30) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (OCT 2003) (31 U.S.C. 3332).

___ (31) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (MAY 1999) (31 U.S.C. 3332).

___ (32) 52.232-36, Payment by Third Party (MAY 1999) (31 U.S.C. 3332).

___ (33) 52.239-1, Privacy or Security Safeguards (AUG 1996)

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(5 U.S.C. 552a).

___ (34) (i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631).

(ii) Alternate I (APR 1984) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: [Contracting Officer check as appropriate.]

___ (1) 52.222-41, Service Contract Act of 1965, as Amended (MAY 1989) (41 U.S.C. 351, et seq.).

___ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (February 2002) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to PreDecemberessor Contractor Collective Bargaining Agreements (CBA) (May 1989) (41 U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in paragraphs (i) through (vi) of this paragraph in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

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(i) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $500,000 ($1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (April 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (December 2001) (38 U.S.C. 4212).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(v) 52.222-41, Service Contract Act of 1965, as Amended (May 1989), flow down required for all subcontracts subject to the Service Contract Act of 1965 (41 U.S.C. 351, et seq.).

(vi) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (April 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor May include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

252.212-7001 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (JUN 2004)

(a) The contractor agrees to comply with the following Federal Acquisition Regulation (FAR) clause which, if checked, is included in this contract by reference to implement a provision of law applicable to acquisitions of commercial items or components.

___ 52.203-3 Gratuities (APR 1984) (10 U.S.C. 2207)

(b) The Contractor agrees to comply with any clause that is checked on the following list of Defense FAR Supplement clauses which, if checked, is included in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components.

___ 252.205-7000 Provision of Information to Cooperative Agreement Holders (DEC 1991) (10 U.S.C. 2416).

___ 252.219-7003 Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DoD Contracts) (APR 1996) (15 U.S.C. 637).

___ 252.219-7004 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (Test Program) (JUN 1997) (15 U.S.C. 637 Note).

_X_ 252.225-7001 Buy American Act and Balance of Payments Program (APR 2003) (41 U.S.C. 10a-10d, E.O. 10582).

___ 252.225-7012 Preference for Certain Domestic Commodities (JUN 2004) (10 U.S.C. 2533a).

___ 252.225-7014 Preference for Domestic Specialty Metals (APR 2003) (10 U.S.C. 2533a).

___ 252.225-7015 Restriction on Acquisition of Hand or Measuring Tools (APR 2003) (10 U.S.C. 2533a).

___ 252.225-7016 Restriction on Acquisition of Ball and Roller Bearings (MAY 2004) (___ Alternate I) (APR 2003) (10 U.S.C. 2534 and Section 8099 of Pub. L. 104-61) and similar sections in subsequent DoD appropriations acts).

___ 252.225-7021 Trade Agreements (JAN 2004) (19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note).

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___ 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales (APR 2003) (22 U.S.C. 2779).
___ 252.225-7028 Exclusionary Policies and Practices of Foreign Governments (APR 2003) (22 U.S.C. 2755).
___ 252.225-7036 Buy American Act--Free Trade Agreements--Balance of Payments Program (JAN 2004) (___ Alternate I) (JAN 2004) (41 U.S.C. 10a-10d and 19 U.S.C. 3301 note).
___ 252.225-7038 Restriction on Acquisition of Air Circuit Breakers (APR 2003) (10 U.S.C. 2534(a)(3)).
___ 252.226-7001 Utilization of Indian Organizations, Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns (OCT 2003) (Section 8021 of Pub. L. 107-248).
___ 252.227-7015 Technical Data--Commercial Items (NOV 1995) (10 U.S.C. 2320).
___ 252.227-7037 Validation of Restrictive Markings on Technical Data (SEP 1999) (10 U.S.C. 2321).
___ 252.232-7003 Electronic Submission of Payment Requests (JAN 2004) (10 U.S.C. 2227)
___ 252.243-7002 Requests for Equitable Adjustment (MAR 1998) (10 U.S.C. 2410).
___ 252.247-7023 Transportation of Supplies by Sea (MAY 2002) (___Alternate I) (MAR 2000) (___Alternate II) (MAR 2000) (Alternate III) (MAY 2002) (10 U.S.C. 2631).
___ 252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631).

(c) In addition to the clauses listed in paragraph (e) of the Contract Terms and Conditions Required to Implement Statutes or Executive Orders--Commercial Items clause of this contract (FAR 52.212-5), the Contractor shall include the terms of the following clauses, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

252.225-7014 Preference for Domestic Specialty Metals, Alternate I (APR 2003) (10 U.S.C. 2533a).
252.247-7023 Transportation of Supplies by Sea (MAY 2002) (10 U.S.C. 2631)
252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631).

52.212-1 INSTRUCTIONS TO OFFERORS--COMMERCIAL ITEMS (JAN 2004)

(a) North American Industry Classification System (NAICS) code and small business size standard. The NAICS code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). However, the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees.

(b) Submission of offers. Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show--

(1) The solicitation number;

(2) The time specified in the solicitation for receipt of offers;

(3) The name, address, and telephone number of the offeror;

(4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or

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other documents, if necessary;
(5) Terms of any express warranty;
(6) Price and any discount terms;
(7) "Remit to" address, if different than mailing address;
(8) A completed copy of the representations and certifications at FAR 52.212-3;
(9) Acknowledgment of Solicitation Amendments;
(10) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information); and
(11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.

(c) Period for acceptance of offers. The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.

(d) Product samples. When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.

(e) Multiple offers. Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.

(f) Late submissions, modifications, revisions, and withdrawals of offers. (1) Offerors are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that offers or revisions are due.

(2)(i) Any offer, modification, revision, or withdrawal of an offer received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(A) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or

(B) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(C) If this solicitation is a request for proposals, it was the only proposal received.

(ii) However, a late modification of an otherwise successful offer, that makes its terms more favorable to the

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Government, will be considered at any time it is received and may be accepted.

(3) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(4) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(5) Offers may be withdrawn by written notice received at any time before the exact time set for receipt of offers. Oral offers in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for receipt of offers, subject to the conditions specified in the solicitation concerning facsimile offers. An offer may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of offers, the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.

(g) Contract award (not applicable to Invitation for Bids). The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.

(h) Multiple awards. The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

(i) Availability of requirements documents cited in the solicitation. (1)(i) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to--

GSA Federal Supply Service Specifications Section
Suite 8100
470 East L'Enfant Plaza, SW
Washington, DC 20407

Telephone (202) 619-8925
Facsimile (202) 619-8978.

(ii) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this

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solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (i)(1)(i) of this provision. Additional copies will be issued for a fee.

(2) The DoD Index of Specifications and Standards (DoDISS) and documents listed in it may be obtained from the--

Department of Defense Single Stock Point (DoDSSP)
Building 4, Section D
700 Robbins Avenue
Philadelphia, PA 19111-5094

Telephone (215) 697-2667/2179
Facsimile (215) 697-1462.

(i) Automatic distribution may be obtained on a subscription basis.

(ii) Order forms, pricing information, and customer support information may be obtained--

(A) By telephone at (215) 697-2667/2179; or

(B) Through the DoDSSP Internet site at http://dodssp.daps.mil.

(3) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication, or maintenance.

(j) Data Universal Numbering System (DUNS) Number. (Applies to all offers exceeding $25,000, and offers of $25,000 or less if the solicitation requires the Contractor to be registered in the Central Contractor Registration (CCR) database. The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS +4" followed by the DUNS or DUNS +4 number that identifies the offeror's name and address. The DUNS +4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see FAR Subpart 32.11) for the same parent concern. If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. An offeror within the United States may contact Dun and Bradstreet by calling 1-866-705-5711 or via the internet at http://www.dnb.com. An offeror located outside the United States must contact the local Dun and Bradstreet office for a DUNS number.

(k) Central Contractor Registration. Unless exempted by an addendum to this solicitation, by submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance and through final payment of any contract resulting from this solicitation. If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror. Offerors may obtain information on registration and annual confirmation requirements via the Internet at http://www.ccr.gov or by calling 1-888-227-2423 or 269-961-5757.

(l) Debriefing. If a post-award debriefing is given to requesting offerors, the Government shall disclose the following information, if applicable:

(1) The agency's evaluation of the significant weak or deficient factors in the debriefed offeror's offer.

(2) The overall evaluated cost or price and technical rating of the successful and the debriefed offeror and past

performance information on the debriefed offeror.
(3) The overall ranking of all offerors, when any ranking was developed by the agency during source selection.
(4) A summary of the rationale for award;
(5) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.
(6) Reasonable responses to relevant questions posed by the debriefed offeror as to whether source-selection procedures set forth in the solicitation, applicable regulations, and other applicable authorities were followed by the agency.

52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS-COMMERCIAL ITEMS (MAY 2004)--ALTERNATE I (APR 2002)

(a) Definitions. As used in this provision:
"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.
"Forced or indentured child labor" means all work or service--
(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or
(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.
"Service-disabled veteran-owned small business concern"--
(1) Means a small business concern--
(i) Not less than 51 percent of which is owned by one or more service--disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.
(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).
"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and size standards in this solicitation.
"Veteran-owned small business concern" means a small business concern--
(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
(2) The management and daily business operations of which are controlled by one or more veterans.
"Women-owned small business concern" means a small business concern--
(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
(2) Whose management and daily business operations are controlled by one or more women.
"Women-owned business concern" means a concern which is at

least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

[ ] TIN: _____.
[ ] TIN has been applied for.
[ ] TIN is not required because:
[ ] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;
[ ] Offeror is an agency or instrumentality of a foreign government;
[ ] Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.
[ ] Sole proprietorship;
[ ] Partnership;
[ ] Corporate entity (not tax-exempt);
[ ] Corporate entity (tax-exempt);
[ ] Government entity (Federal, State, or local);
[ ] Foreign government;
[ ] International organization per 26 CFR 1.6049-4;
[ ] Other _____.

(5) Common parent.
[ ] Offeror is not owned or controlled by a common parent;
[ ] Name and TIN of common parent:
Name _____.
TIN _____.

(c) Offerors must complete the following representations when the resulting contract will be performed in the United States or its outlying areas. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it [ ] is, [ ] is not a small business concern.

(2) Veteran-owned small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it [ ] is, [ ] is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this

provision.] The offeror represents as part of its offer that it [ ] is, [ ] is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, for general statistical purposes, that it [ ] is, [ ] is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it [ ] is, [ ] is not a women-owned small business concern. Note: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) Women-owned business concern (other than small business concern). [Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it [ ] is a women-owned business concern.

(7) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

_____

(8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. [Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.]

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it [ ] is, [ ] is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).) Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

Number of Employees	Average Annual Gross Revenues
____ 50 or fewer	____ $1 million or less
____ 51--100	____ $1,000,001--$2 million
____ 101--250	____ $2,000,001--$3.5 million
____ 251--500	____ $3,500,001--$5 million
____ 501--750	____ $5,000,001--$10 million
____ 751--1,000	____ $10,000,001--$17 million
____ Over 1,000	____ Over $17 million

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(9) (Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns, or FAR 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.)

(i) General. The offeror represents that either--

(A) It [ ] is, [ ] is not certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It [ ] has, [ ] has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) [ ] Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124. 1002(f) and that the representation in paragraph (c)(9)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture:_____.]

(10) HUBZone small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It [ ] is, [ ] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It [ ] is, [ ] is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. [The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:_____.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(11) (Complete if the offeror has represented itself as disadvantaged in paragraph (c)(4) or (c)(9) of this provision.) The offeror shall check the category in which its ownership falls:

_____ Black American.
_____ Hispanic American.
_____ Native American (American Indians, Eskimos, Aleuts,

or Native Hawaiians).
____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory or the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).
____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).
____ Individual/concern, other than one of the preceding.

(11) HUBZone small business concern. [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that-

(i) It [ ] is, [ ] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns Maintained by the Small Business Administration, and no material change in ownership and control, principal place of ownership, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It [ ] is, [ ] is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(11)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating on the joint venture. [The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Representations required to implement provisions of Executive Order 11246--

(1) Previous contracts and compliance. The offeror represents that--

(i) It [ ] has, [ ] has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation; and

(ii) It [ ] has, [ ] has not filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that--

(i) It [ ] has developed and has on file, [ ] has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR parts 60-1 and 60-2), or

(ii) It [ ] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed $100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

VENDOR:

(f) Buy American Act Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act--Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products. The terms "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act--Supplies."

(2) Foreign End Products:

Line Item No	Country of Origin
_____	_____
_____	_____
_____ (List as necessary)	_____

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) Buy American Act--Free Trade Agreements--Israeli Trade Act Program Certificate. (Applies only if the clause at FAR 52.225-3, Buy American Act--Free Trade Agreements--Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The terms "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act."

(ii) The offeror certifies that the following supplies are FTA country end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act":

FTA Country or Israeli End Products:

Line Item No	Country of Origin
_____	_____
_____	_____
_____ (List as necessary)	_____

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

Other Foreign End Products:

Line Item No	Country of Origin
_____	_____
_____	_____
_____	_____

VENDOR:

(List as necessary)

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(2) Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate, Alternate I (Jan 2004). If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act":

Canadian End Products:

Line Item No.

_____

_____

_____

(List as necessary)

(3) Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate, Alternate II (Jan 2004). If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreements--Israeli Trade Act":

Canadian or Israeli End Products:

Line Item No	Country of Origin
_____	_____
_____	_____
_____	_____

(List as necessary)

(4) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(4)(ii) of this provision, is a U.S.-made, designated country, Caribbean Basin country, or FTA country end product, as defined in the clause of this solicitation entitled "Trade Agreements."

(ii) The offeror shall list as other end products those end products that are not U.S.-made, designated country, Caribbean Basin country, or FTA country end products.

Other End Products:

Line Item No	Country of Origin
_____	_____
_____	_____
_____	_____

(List as necessary)

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items subject to the Trade Agreements Act, the Government will evaluate

VENDOR:

offers of U.S.-made, designated country, Caribbean Basin country, or FTA country end products without regard to the restrictions of the Buy American Act. The Government will consider for award only offers of U.S.-made, designated country, Caribbean Basin country, or FTA country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549). (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals--

(1) [ ] Are, [ ] are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(2) [ ] Have, [ ] have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(3) [ ] Are, [ ] are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(i) Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]

(1) Listed end products.

Listed End Product

_____

_____

Listed Countries of Origin

_____

_____

(2) Certification. [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]

[ ] (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

[ ] (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

(End of provision)

VENDOR:

Your quotation must include the following information:

Price list number and date

or

Cost breakdown by direct labor (list categories, hours and pay rates). In addition to the direct rates, provide the applicable indirect information (G&A), overhead, facilities capital cost of money (FCCM) and profit.

or

Applicable General Services Administration (GSA) contract number.

If unable to quote FOB, Destination, please complete the following:

FOB Point _____

Estimated Shipping Charge _____

Business size:

Large _____ Small _____ Nonprofit _____

Cage Code _____

Tax Identification Number (TIN) _____

DUNNS _____

ELIGIBILITY REQUIREMENTS

All contractors and individuals doing business with the Federal Government must be registered at the Contractor Central Registration Database located at:
http:ccr.dlsc.dla.mil/.

ELECTRONIC DISTRIBUTION OF CONTRACT DOCUMENTS

All contract award and contract modification documents will be distributed electronically using the Navy Air Force Interface (NAFI) system. The contractor's copy will be provided in portable document format (pdf) as an attachment to an e-mail that will be sent to the contractor by the NAFI system. A pdf file may be accessed using Adobe Acrobat Reader software. This is a free software that may be downloaded at:
http://www.adobe.com/products/acrobat/readstep.html

Provide the following information that will be used to make

VENDOR:

electronic distribution for any resultant contract:

Name of Point of Contact to Receive Distribution _____

Phone Number for Point of Contact _____

E-Mail Address for Receipt of Distribution _____

USE OF THE GOVERNMENTWIDE COMMERCIAL PURCHASE CARD

Will you accept the Governmentwide Commercial Purchase Card as a method of purchasing supplies and/or services.

_____Yes _____ No

Will you accept the Governmentwide Commercial Purchase Card as a method of payment for your invoice.

_____Yes _____ No

DUTY FREE ENTRY

Will any materials being shipped to the Government require a duty-free entry certificate for foreign supplies.

_____Yes _____ No

If yes, please include dollar amount $_____

Purchase Specification

For

Main Turbine Generator (MTG) Exhaust Ducting System

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1.0 Introduction

1.1 This specification establishes the requirements for the design, manufacture, and delivery of an Exhaust Ducting System for a gas turbine on a Gas Turbine Test Facility at the Naval Surface Warfare Center, Carderock Division, Ship Systems Engineering Station (NSWCCD-SSES), Philadelphia, PA. The Exhaust Ducting System is shown in Figure 1. The Temporary Exhaust Gas Exit Section (Figure 3) is an option.

1.2 Each of the system's components, specified herein, shall be fabricated, assembled, and shipped in as much a complete unit as possible.

1.3 All components described in this specification must be designed to be structurally and thermally adequate to withstand lifting and handling, load conditions, and the operating conditions as described in this specification.

The Exhaust Ducting System is to be delivered to NSWCCD-SSES no later than 16 weeks after Date of Contract.

2.0 Scope

2.1 Equipment and Services to be Provided by the Contractor:

2.1.1 The Contractor shall be responsible for delivery of the following to NSWCCD-SSES in Philadelphia:

Item	Qty	Description
0001	1	Main Turbine Generator Exhaust Ducting System in accordance with the specifications provided herein.
0002	1 Lot	Preliminary Technical Data consisting of preliminary drawings, estimated loads, thermal growth calculations and proposed quality assurance plan in accordance with paragraph 5.1 of this specification.
0003	1 Lot	Interim Technical Data for SSES review and comment consisting of: flange and bolting details, component geometry, Bill of Material, a calculation report with analysis of the structural and thermal adequacy of the system, exhaust system 1st mode natural frequencies, weights, loads at support points, centers of gravity and lift points for each component per paragraph in accordance with paragraph 5.2 of this specification.
0004	1 Lot	Three (3) sets of 'As Built' drawings and erection instructions.
0005	1 Lot	Completed quality assurance plan

0006	1	Option: Temporary Exhaust Gas Exit Section (priced separately)

2.1.2 The Contractor shall be responsible for providing the Exhaust Ducting System as specified herein including all bolting hardware to make-up the flange joints (with 10% spares).

2.1.3 The Contractor shall be responsible for the design, procurement of materials, fabrication, cleaning, surface preparation, painting, packaging and shipping of all items included in this specification. The Contractor shall assume the responsibility of the product in transit.

2.1.4 The Contractor shall size and provide the appropriate gaskets for all flange joints. Thermal expansion is to be considered when sizing gaskets.

2.1.5 The design of structural steel shall be in accordance with the specification of the American Institute of Steel Construction, latest edition, except where modified by local government regulations or Government's special requirements. Modifications for local government regulations or Government's special requirements shall be made only if they exceed the requirements of the Codes.

2.1.6 All ducting component sections shall have hardened lift points to allow lifting and movement. These lift points shall be designed where possible to lift through the system component center of gravity. Temporary shoring shall be designed, manufactured, and provided with the duct components to facilitate movement. Where the integral strength of a component section will not allow free standing storage, storage stands shall be designed, manufactured and provided. All design drawings and hardware shall have centers of gravity calculated and clearly marked. Where the component sections have been made symmetrical, lift points shall be symmetrically placed on both sides of the component section.

2.1.7 The Contractor shall be responsible for the accuracy of its designs and full conformance to the requirements presented in this specification. Approval of any drawings, calculations and/or tests by the Government shall not relieve the Contractor from these responsibilities.

2.1.8 Nothing in this specification shall relieve the Contractor of the responsibilities for performing, in addition to the requirements of this specification, such analyses which the Contractor considers necessary to insure that the design, material, and workmanship are satisfactory for the service intended, or as may be required by common usage and/or good practice.

2.1.9 Inspections shall be performed as hereinafter specified.

2.1.10 The Contractor shall maintain all hereafter-specified data and records. These will be delivered to the Government after the work has been accepted.

2.1.11 The Contractor shall establish and maintain a system for the control of quality during manufacture and examination, which will insure that all components and assemblies furnished under this specification meet requirements hereinafter specified.

2.1.12 The Contractor shall mark all parts and units of assembly as hereinafter specified.

2.1.13 The Contractor shall, prior to shipment, assemble the Exhaust Ducting System to ensure adherence to the tolerances indicated by this specification. The Government or the Government's agent shall witness the assembly by the Contractor. A minimum notification of seven (7) days is required to arrange such a visit.

2.1.14 The Contractor shall provide the Government and his agent access at all times to all places where work is being done under this specification. They shall have full access to facilities for unrestricted inspection of such work.

2.1.15 The Contractor shall provide all necessary and incidental labor, materials, tools, equipment and services that must be employed to satisfy the requirements stated in this specification.

2.1.16 The Contractor shall provide, for review and approval, all of the data requirements described in this specification, including the complete and detail drawings for all equipment and work under this specification.

2.2 Equipment and Services to be Provided by the Government:

2.2.1 The Government will unload at NSWCCD-SSES, store and erect all items furnished by this specification.

2.2.2 The Government will modify an existing support structure at the Test Facility to support the Exhaust Duct System, as required.

2.2.3 The Government will modify the existing roof penetration in the building to accommodate the Exhaust Duct System.

2.2.4 The Government will provide flexible joints at the ducting interface with the gas turbine and the Exhaust Gas Exit Section at the time of erection.

2.2.5 The Government will provide and install pressure and temperature sensing instruments at the instrumentation connections on the Transition Section following erection.

2.2.6 The Government will provide grounding cables as required following erection.

3.0 Applicable Documents

3.1 The following specifications, standards, and codes, latest edition, form a part of this specification. The design of the items identified in this specification shall be in strict compliance with all applicable sections herein.

3.2 Referenced Specifications, Standards, and Codes

3.2.1 American Society of Mechanical Engineers (ASME), Standard STS-1 "Steel Stacks"

3.2.2 American Society of Civil Engineers (ASCE), Standard 7-02 "Minimum Design Loads for Buildings and Other Structures"

3.2.3 American Welding Society (AWS), Standards D1.1 "Structural Welding Code – Steel", D9.1 "Sheet Metal Welding Code", and D10.12 "Guide for Welding Mild Steel Pipe"

3.2.4 American Institute of Steel Construction, Inc. (AISC), ASD 9th Edition.

3.2.5 American Iron and Steel Institute (AISI)

3.2.6 American Society for Testing and Materials (ASTM), Standards A36, A105, A106, A176, A181, A240, A325, and A563

3.2.7 American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 52-76

3.2.8 American National Standards Institute (ANSI), Standards B1.20.1"Pipe Threads, General Purpose (Inch)", B16.11 "Forged Fittings, Socket-Welding and Threaded", B16.5 "Steel Pipe Flanges and Flanged Fittings"

3.2.9 Steel Structures Painting Council (SSPC)

3.2.10 International Building Code, 2003

3.2.11 Department of Transportation (DOT), CFR 49

3.2.12 American National Standards Institute (ANSI)/American Society for Quality Control (ASQC), Section Q, "Quality Systems - Model for Quality Assurance in Production and Installation"

3.2.13 Occupational Safety and Health Agency (OSHA), Part 1910 "Standards Improvement (Miscellaneous Changes) For General Industry and Construction Standards"

4.0 Technical Requirements

4.1 General

4.1.1 The Exhaust Ducting System shall be provided in accordance with paragraph 3.2. It shall collect hot exhaust gases from the gas turbine under test in NSWCCD-SSES Building 77H and direct the exhaust gases through a roof penetration and into an Exhaust Gas Exit Section located above the exit of the ducting system. The Exhaust Duct System shall be supported by an existing support structure, modified by the Government as required to support the new ducting and the Exhaust Gas Exit Section.

4.1.2 Site Conditions:

4.1.2.1 Location: Partially Indoor / Partially Outdoor

4.1.2.2 Ambient Temperature Range: -5ºF to 105ºF (outside air)

4.1.2.3 Relative Humidity Range: 05% to 100% (outside air)

4.1.2.4 Altitude: 33' above mean sea level at Gas Turbine Interface

4.1.3 Design Conditions

4.1.3.1 Applied Loading

The Exhaust Ducting System shall be designed for the following applied loads per Reference 3.2.1 except as noted.

- Dead Load
- Wind Load
- Seismic Load
- Thermal Load

- Flow Load resulting from Operating Conditions listed in Section 4.1.4

- Pressure Load resulting from Operating Conditions listed in Section 4.1.4

4.1.3.2 Allowable Stresses

Allowable Stresses in exhaust ducting shell material shall be in accordance with Reference 3.2.1. Allowable stresses in all other steel members shall be in accordance with Reference 3.2.4.

4.1.3.3 Operating Conditions

- The exhaust duct shall be designed for conditions no less than an exhaust gas flow rate of 282 lbs/sec and 985°F at 12" W.G.

- The contractor shall provide an engineering estimate of the outer shell temperature while operating at the design conditions. If the outer shell temperature is above 140°F, the Contractor shall offer design alternatives to lower the outer shell temperature to less than 140°F.

4.2 Arrangement

4.2.1 The Exhaust Ducting System shall be designed in accordance with the arrangement and details depicted in Figure 2.

4.2.2 The Exhaust Duct System shall be of double walled construction, designed such that the inner liner and outer shell are vertically and laterally independent of each other. The inner liner shall have the freedom to expand and contract with changes in exhaust gas temperature and outside ambient air temperature, independent of the outer wall of the duct without buckling, distortion, and/or failure. The inner liner shall have a smooth inside surface, which does not impede flow.

4.2.3 Construction shall be such that no gaps or leaks occur in the assembly. Flanged Joints shall be designed to minimize the exposure of the gaskets to hot exhaust gas.

4.2.4 The entire weight of the supplied Exhaust Duct System is to be supported by the two Duct Support Interfaces shown on Figure 2. The duct system shall include provisions to accommodate thermal expansion in the shell between the two fixed support points. The Exhaust Duct Transition Section shall be fully supported by its top flange and transmit no force to the flexible expansion joint, provided by the Government, at the gas

turbine interface. The temporary Exhaust Gas Exit Section above Exhaust Duct Top Section will take the place of the Exhaust Gas Diffuser and the Exhaust Gas Diffuser Flexible Joint. For this temporary use, the Exhaust Gas Exit Section will be supported by the Exhaust Ducting System. The Exhaust Gas Diffuser, once installed, will be supported separately and will be connected to the Exhaust Gas System through the Flexible Joint.

4.2.5 The Exhaust Duct Transition Section shall have twelve (12) ¼" connections for pressure instrumentation and four (4) ½" connections for temperature instrumentation. The connections will be configured as shown in Detail 3. The Government will provide exact locations after the award of a contract.

4.2.6 The Exhaust Duct Intermediate Section shall have a Contractor Designed Hinged Inspection Hatch as shown in Figure 2. A removable, interior ladder or permanent ladder rungs must also be provided from the Inspection Hatch down to the bottom of the Exhaust Duct Transition Section.

4.2.7 The Exhaust Duct Top Section shall have flashing to prohibit water entry into the building as shown in Figure 2.

4.2.8 The temporary Exhaust Gas Exit Section is to be of a single walled construction. It will be secured to the duct system on one end and will be able to thermally grow without restriction at the other end.

4.2.9 Lift points (eyes) shall be provided to permit loading, unloading, and erection.

4.2.10 The Exhaust Ducting shall have the following Gas Sample Ports:

Type	Quantity	Location	Detail
3" Diameter	1	86' Above Floor	5 inch square flange, See Figure 4
3" Diameter	1	81.25' Above Floor	5 inch square flange, See Figure 4
3" Diameter	1	70' Above Floor	5 inch square flange, See Figure 4
3" Diameter	1	32' Above Floor	5 inch square flange, See Figure 4
3" Diameter	12	Below the 32' Level, between the expansion joint and the transition section. See	5 inch square flange, See Figure 4

		Figure 5	

4.3 Tolerances

4.3.1 Tolerances shall be in accordance with the following:

4.3.1.1 Ducting Tolerances:

4.3.1.1.1 Square Ducting shall maintain diagonal squareness of ± 1/8 inch.

4.3.1.1.2 Round Ducting shall maintain the required diameter within ± 1/8 inch.

4.3.1.1.3 All linear dimensions shall be ± 1/8 inch.

4.3.1.2 Flange Tolerances:

4.3.1.2.1 Flatness of flanges shall be held within a tolerance of ± 1/8 inch. Contractor shall insure that flanges will not be distorted due to the torque of bolts

4.3.1.2.2 Flanges shall maintain a parallelism or perpendicularity, as applicable, within a total tolerance of ± 1/8 inch.

4.3.1.2.3 Square flanges shall maintain diagonal squareness of ± 1/8 inch.

4.3.1.2.4 Round flanges shall maintain the required diameter within ± 1/8 inch.

4.3.1.2.5 Location of all holes shall be held to a true position of ± 1/16 inch diameter circle.

4.4 Materials and Processes

4.4.1 The external walls of the Exhaust Duct System shall be fabricated from ASTM A36 carbon steel plate, not less than 3/16 inches thick. The end flanges shall be 3/8" thick (min) ASTM A36 carbon steel. Welding shall be in accordance with AWS D1.1. All exterior duct welds are seal welds.

4.4.2 All surfaces exposed to hot exhaust gas shall be ASTM A-176, type 409 Stainless Steel. Stainless steel surfaces shall not be painted. The inner liner shall be free to expand and contract with changes in the exhaust gas temperature and outside ambient air, independent of the outer shell of the duct.

4.4.3 The Exhaust Duct System shall be insulated with 8 lbs/cu.ft. density Durablanket-HP-S Ceramic Fiber 2300°F. Between the stainless steel liner and carbon steel shell, thickness of insulation shall be in excess of 4 inches to prevent voids from occurring at installation.

4.4.4 Welding on the inner liner shall be in accordance with paragraph 3.2.3 above. No weld spatter is allowed inside the exhaust duct stainless steel liner. TIG welding of the liner shall be used if required. Other methods of fastening inner liner may be used if approved by the Government.

4.4.5 Welding in fabrication of the liner and shell shall be avoided through the use of bending. The Contractor shall provide details regarding fabrication with the design submittals.

4.4.6 Flanges shall be bolted with ASTM A-325, Grade-5, zinc plated hex head bolts with ASTM A-563, Grade-DH hex nuts and flat circular washers.

4.4.7 Surface Preparation and Painting

4.4.7.1 Carbon steel surfaces (interior and exterior) shall be cleaned in accordance with SSPC-SP6 (3.2.9 above), Commercial Blast Cleaning. Dust and blast products shall be removed from the surface of sandblasted steel by high pressure air or vacuum cleaning.

4.4.7.2 Paint all Carbon Steel interior and exterior surfaces with one shop coat of Carbo-Zinc HS-11 (Green) paint, 3.0 to 5.0 mils dry film thickness.

4.4.8 All structural welding shall be in accordance with AISC specifications in conjunction with the Structural Welding Code-Steel, AWS D1.1.

5.0 Data Requirements

5.1 Required three (3) weeks after Date of Contract:

5.1.1 Preliminary drawings of the Exhaust Duct System components giving sufficient details to allow evaluation of the exhaust system with regard to flange bolting arrangements, double wall construction, structural integrity, installation and conformance with major requirements of this specification.

5.1.2 Estimated loads at support points and centers of gravity of the exhaust ducting system components.

5.1.3 Thermal growth calculations for the Exhaust Ducting System which include the thermal growth between the two duct support rings, the resulting forces, and the thermal growth of the ducting into the gas turbine flexible joint and the exhaust gas diffuser flexible joint.

5.1.4 A proposed Quality Assurance plan in accordance with the requirements of ANSI/ASQC Section Q. This shall include work procedures performed by the Contractor or his contractor for the following:

5.1.4.1 Manufacturing and processing procedures
5.1.4.2 Inspection checklist or program
5.1.4.3 Cleaning procedures
5.1.4.4 Painting procedures
5.1.4.5 Shipping procedures
5.1.4.6 Repair welding procedures
5.1.4.7 Quality assurance checklist

5.2 Required six (6) weeks after Date of Contract:

5.2.1 Interim technical data and drawings for review and comment by the Government providing final location of the following:

5.2.1.1 Bolting patterns of all flange sections.

5.2.1.2 Final information on Exhaust Duct System components geometry, weights, and loads.

5.2.1.3 Bolting patterns on hold down bolts for the two duct support sections.

5.2.2 Bill of materials including part number, size, material designation, quantity and Contractor's name and part number for all subcontracted items.

5.2.3 A calculation report with the following information:

5.2.3.1 Analyses of the structural and thermal adequacy of the Exhaust Duct System components.

5.2.3.2 The Exhaust Ducting System 1st mode natural frequencies.

5.2.3.3 Loads at support points sufficient for the Government to confirm the adequacy of the existing support structure.

5.2.3.4 Weights, centers of gravity, and lift points for each component.

5.3 Required ten (10) weeks after Date of Contract:

5.3.1 Three (3) reproducible sets of the final source control drawings showing all the required details of this specification, additional details resulting from the Government's reviews, and any "As Built" details resulting during manufacture.

5.3.2 Complete and detailed erection instructions for the exhaust ducting system components. Lifting and erection instructions are to be part of the source control drawing. Three (3) sets of the erection instructions are to be shipped with the equipment.

5.3.3 Instructions for handling and storage of all equipment.

5.4 Upon completion of manufacturing and assembly of the ducting system, a completed quality Assurance Plan per paragraph 5.1.4 shall be provided.

5.5 Drawing Format Requirements

5.5.1.1 The drawing format must be clear. Numbers, letters, and lines must be clear and dark, maintaining uniform density and properly spaced to insure clarity when reduced in size.

5.5.1.2 The drawing title block must include title, drawing number, revision number, and date.

6.0 Release for Manufacture

6.1 Design Review

The Contractor shall furnish descriptions and drawings of the proposed exhaust ducting system components to the Government for review in accordance with Section 5. No fabrication work by the Contractor is authorized until formal release for manufacture is provided to the Contractor by the Government. Review and comment of drawings is not to be construed as relieving the Contractor of the responsibility for the fabrication of the exhaust system components and/or voiding of the Contractor's guarantees. Review and comment on preliminary design package will be 14 days after receipt by the Government.

6.2 Design Change Provision

6.2.1 No substitutes or alterations are authorized without written approval in the form of a change notice to the order.

7.0 Inspection and Testing

7.1 The Contractor shall notify the Government two weeks prior to the shipping date for the exhaust ducting system. The Government reserves the right to conduct an in-plant inspection of the pieces prior to packaging for shipment.

8.0 Delivery Schedule

8.1.1 Delivery shall be in accordance with the following schedule:

Item	Description	Weeks after date of Contract
0001	Main Turbine Generator Exhaust Ducting System in accordance with the specifications provided herein.	16 Weeks
0002	Preliminary Technical Data consisting of preliminary drawings, estimated loads, thermal growth calculations and proposed quality assurance plan in accordance with paragraph 5.1 of this specification.	3 Weeks
0003	Interim Technical Data for SSES review and comment consisting of: flange and bolting details, component geometry, Bill of Material, a calculation report with analysis of the structural and thermal adequacy of the system, exhaust system 1st mode natural frequencies, weights, loads at support points, centers of gravity and lift points for each component per paragraph in accordance with paragraph 5.2 of this specification.	6 Weeks
0004	Three (3) sets of 'As Built' drawings and erection instructions.	16 Weeks
0005	Completed quality assurance plan	16 Weeks
0006	Option: Temporary Exhaust Gas Exit Section	16 Weeks

9.0 Shipping

9.1 Packaging

9.1.1 The Contractor shall provide shipping protection appropriate for the method of shipment and final destination. Preparation is subject to review and comment by the Government.

9.1.2 The Contractor shall pack, label and ship all equipment and materials in compliance with D.O.T. CFR 49.

9.2 Coding, Marking, Labeling, and Placarding

9.2.1 The Contractor shall provide a permanently attached nameplate with each exhaust ducting system. The nameplates shall display Contractor's address and purchase order number.

9.2.2 Each separate deliverable item shall be tagged or stenciled with the drawing number, part name, Contractor's part number or identification number, weight, center of gravity and lift points.

9.2.3 Any angles, bars, channels, etc., used for shipping and requiring removal before installation shall be painted yellow and clearly identified by stenciling in a contrasting color.

9.2.4 Instructions for proper storage at the job site (i.e. lift points, cable angles, etc.) shall be provided.

9.3 Shipping Instructions

9.3.1 The Contractor shall contact the Government two (2) weeks prior to packaging.

9.3.2 Each package shall be marked with the Contract Number, Contract Item Number and Purchase Specification Number TS050-13.

9.3.3 Shipping Address: Naval Surface Warfare Center,
Carderock Division
Ship Systems Engineering Station
901 Admiral Peary Way
Naval Business Center
Philadelphia, Pa 19112
Attn: Howard Feinstein, Code 9112
Phone: (215) 897-8895
Cell: (215) 837-1787

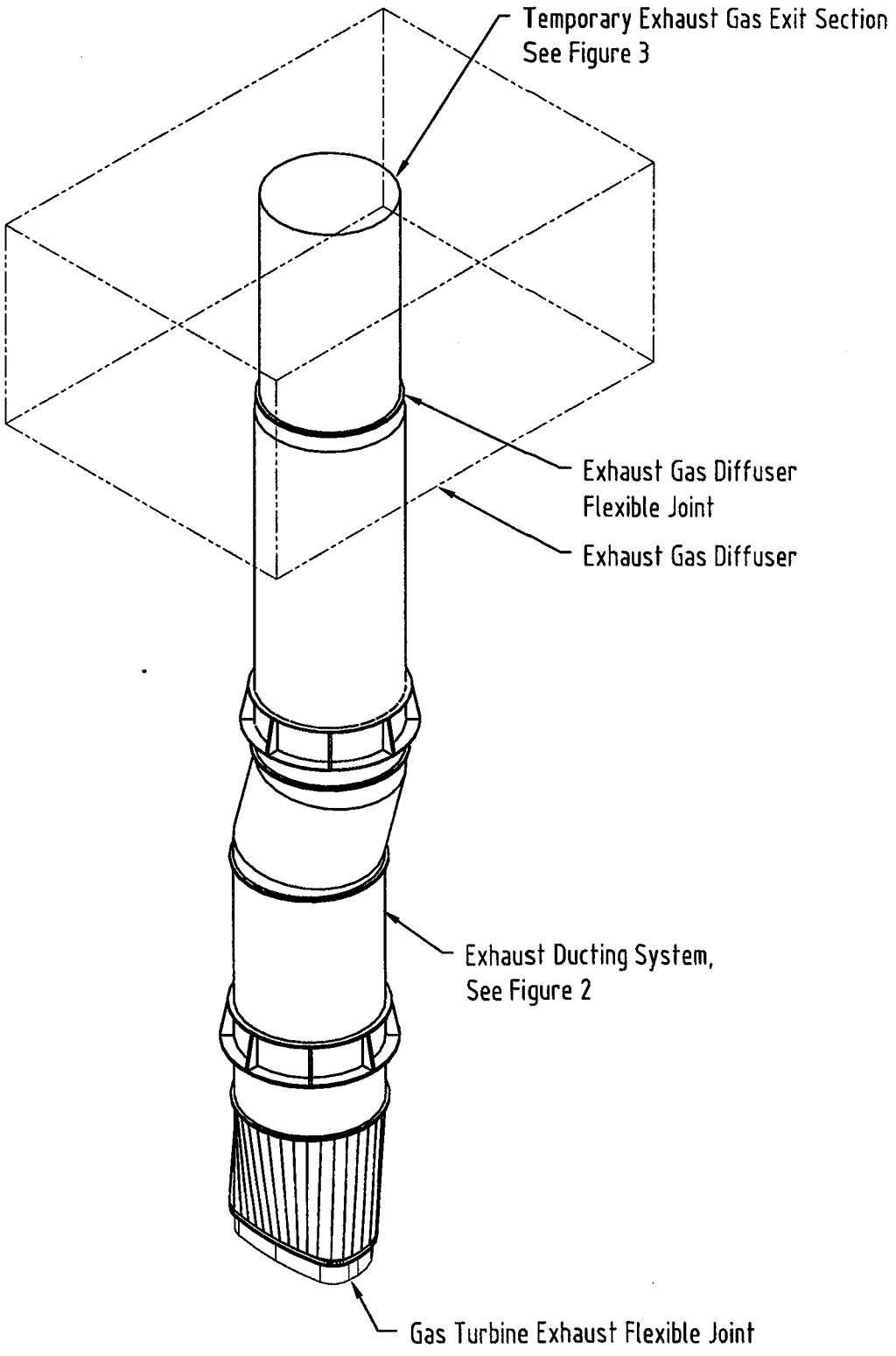


FIGURE 1
Exhaust Ducting System Isometric

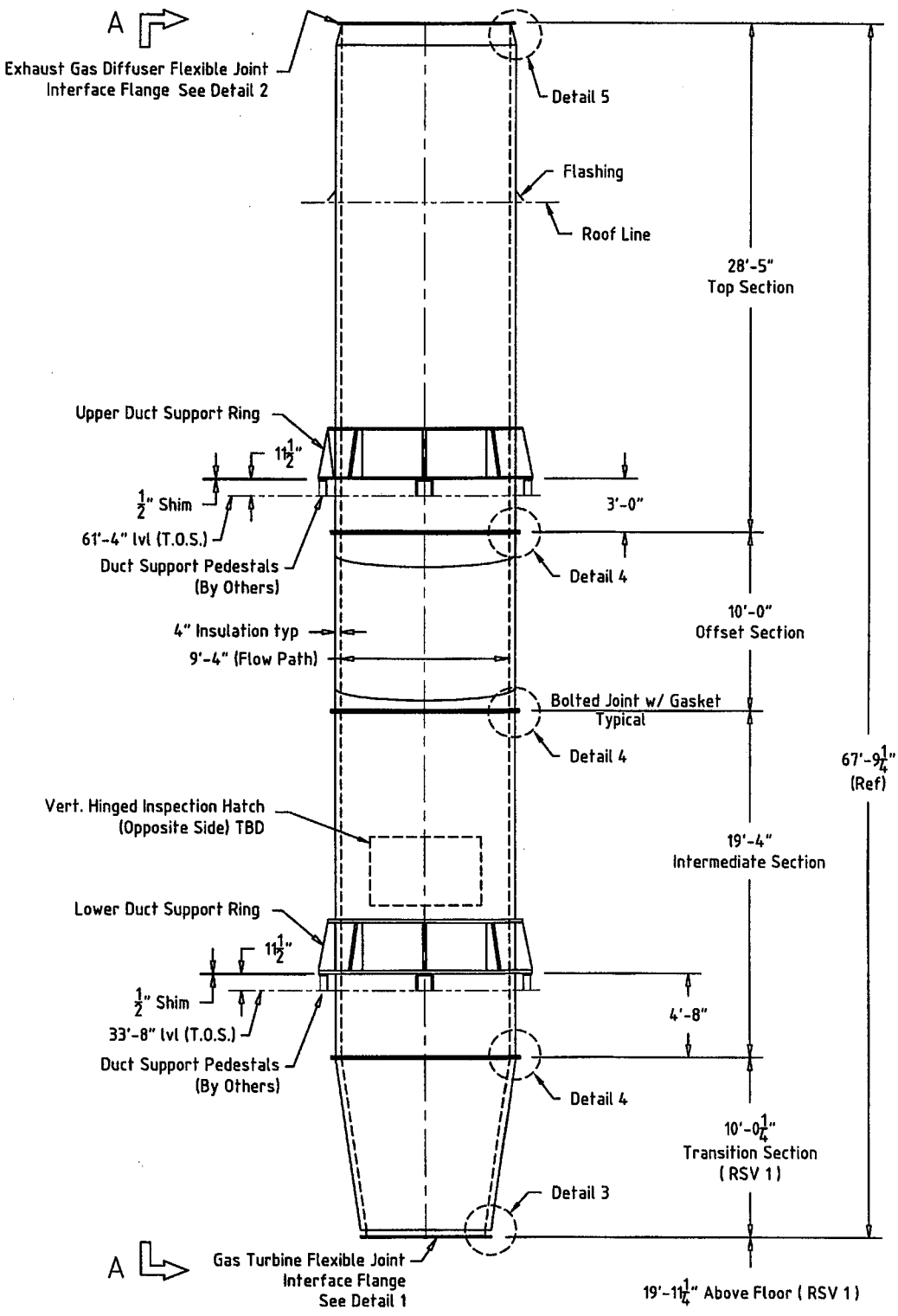
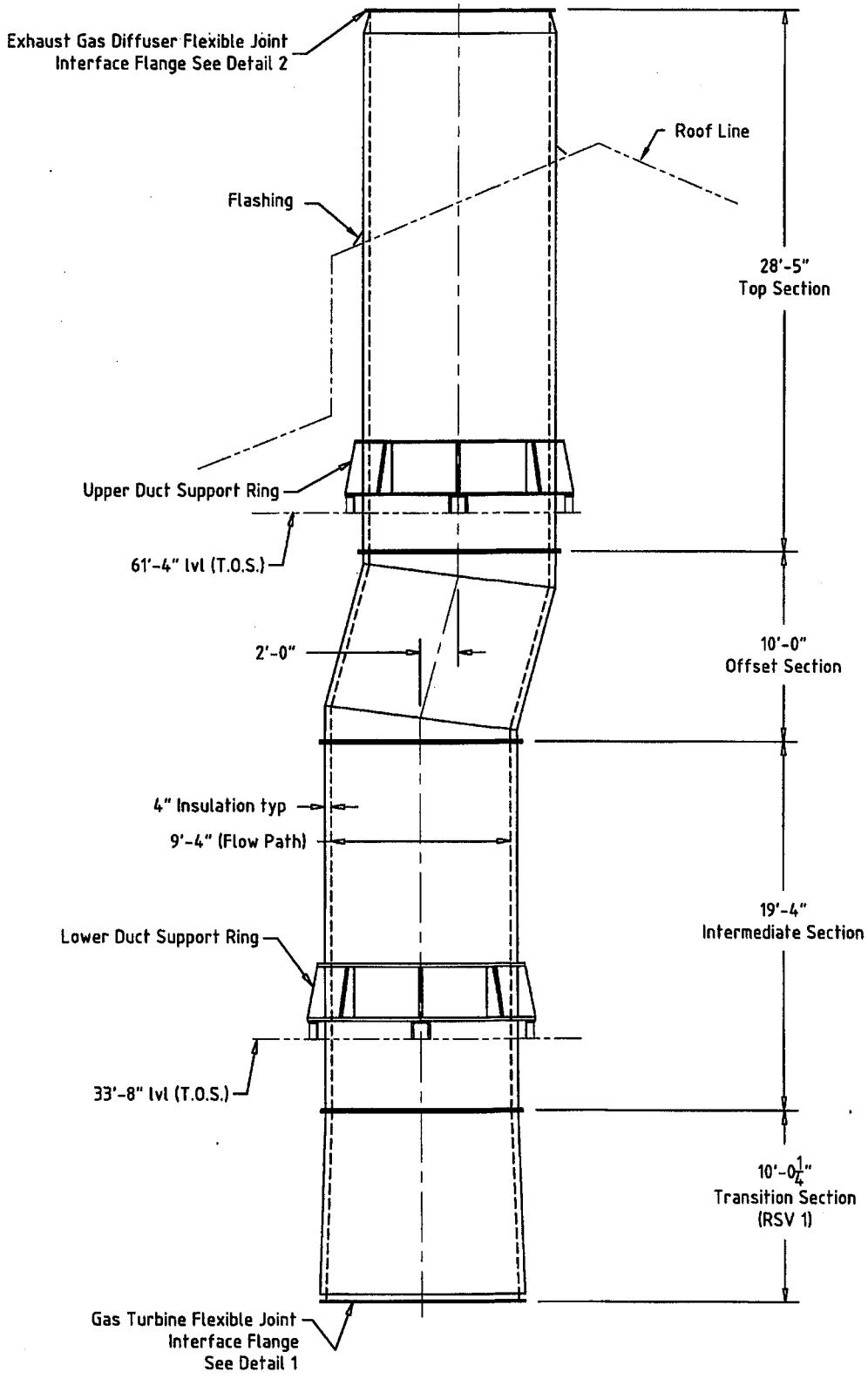


FIGURE 2
Exhaust Duct System Arrangement and Details
Reservation 1: Height Reserved Pending Gas Turbine Final Interface Information



VIEW A-A
Exhaust Duct System (Side View)

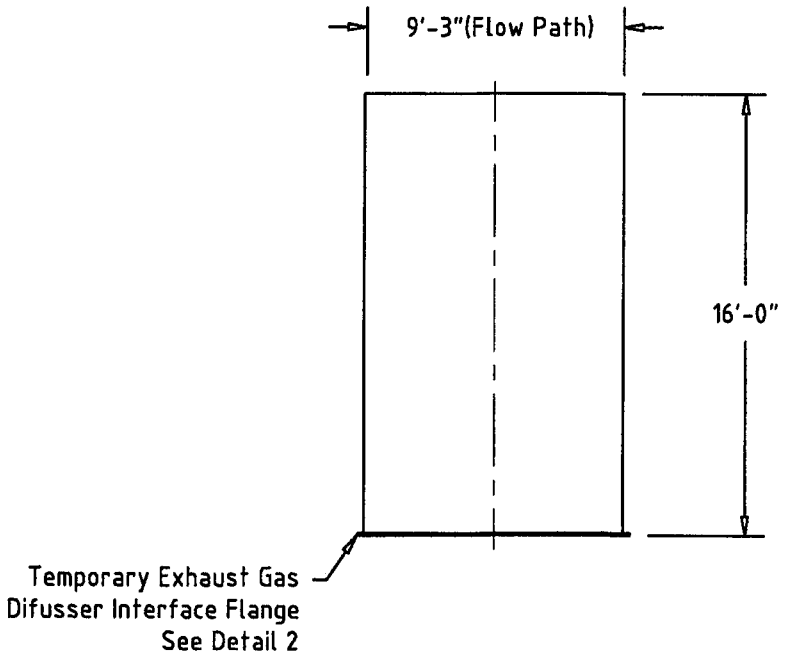
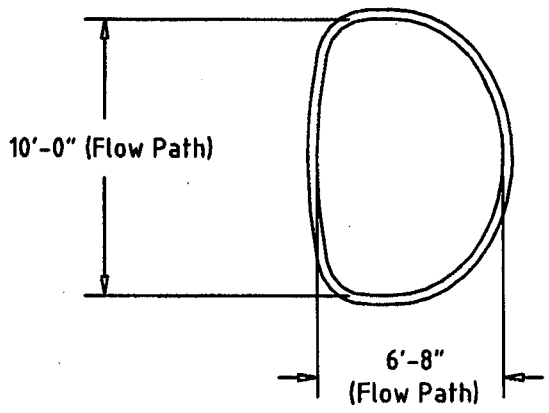
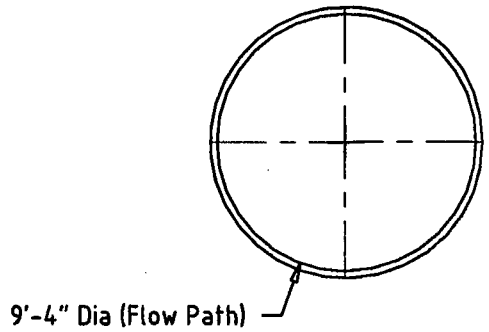


Figure 3
Temporary Exhaust Gas Exit Section



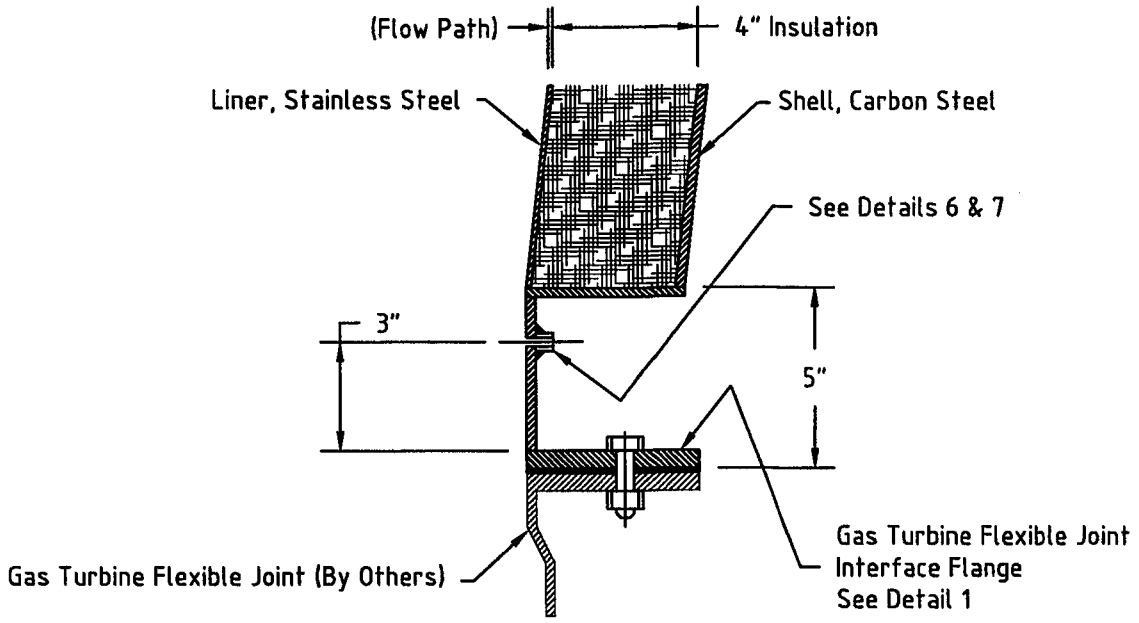
(Bolt Hole Pattern to be Provided by the Government Within 10 days of Award)

DETAIL 1
Gas Turbine Flexible Joint Interface Flange

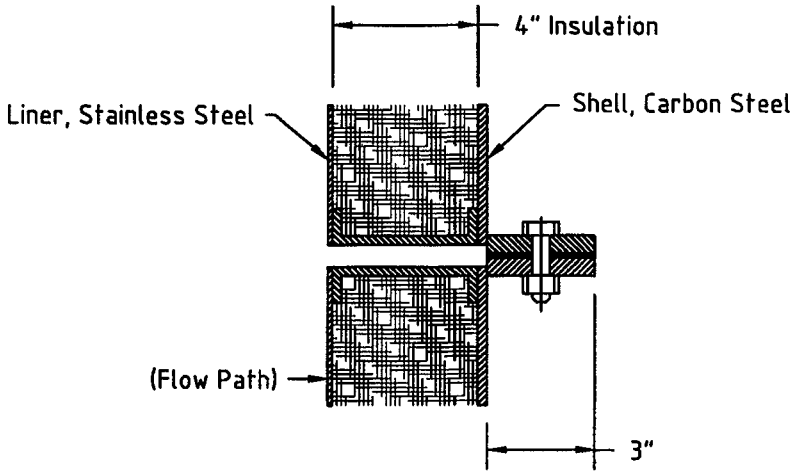


(Flange OD and Bolt Pattern to be Provided by the Government Within 10 days of Award)

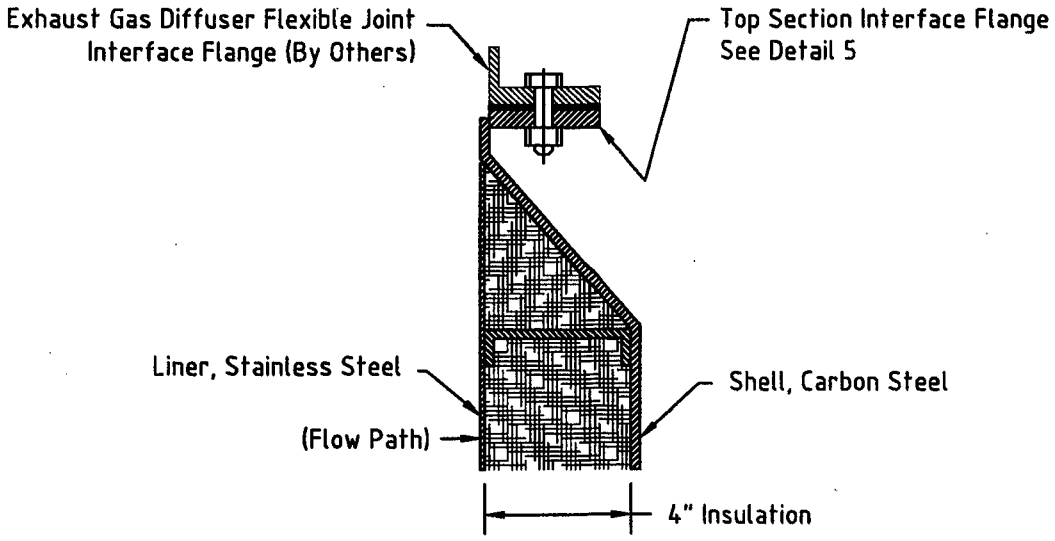
DETAIL 2
Exhaust Gas Diffuser
Interface Flange



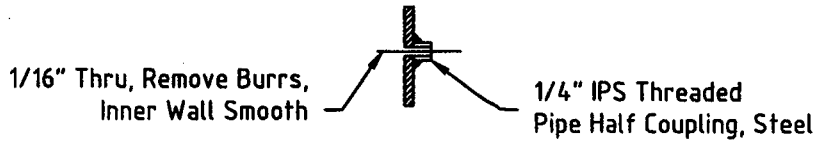
DETAIL 3
Transition Section
Pressure Tap Detail



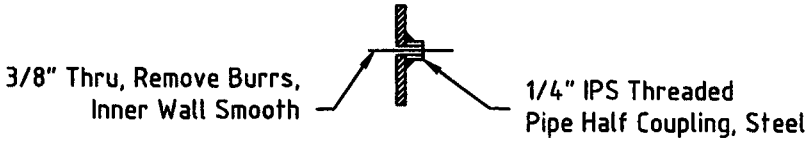
DETAIL 4
Wall Section / Interconnection Detail



DETAIL 5
Top Section
Connection Detail



DETAIL 6
Pressure Connection Detail



DETAIL 7
Temperature Connection Detail

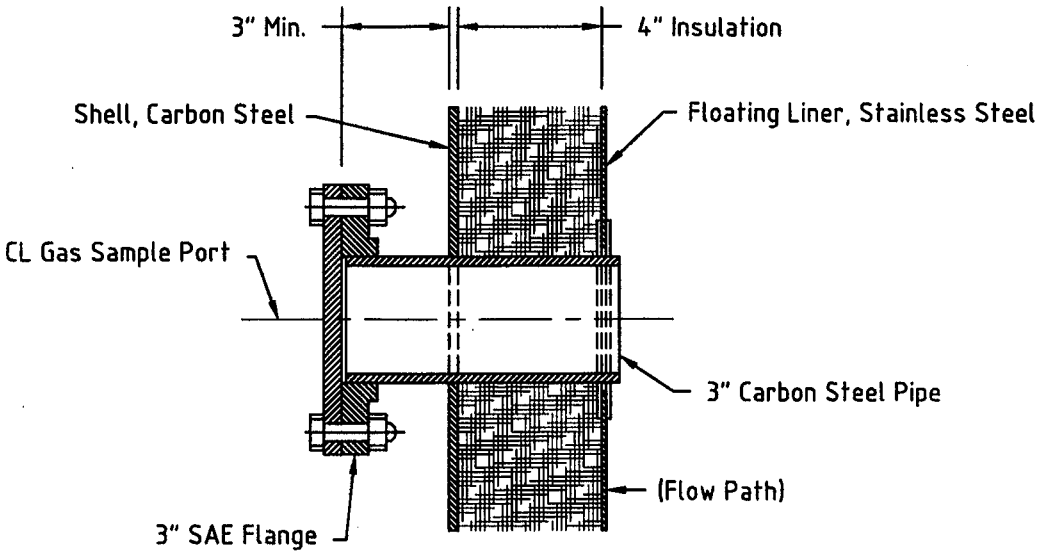


Figure 4
3" Gas Test Port

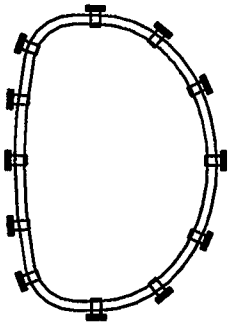


Figure 5
Gas Sample Port Arrangement
at the Below 32' Level