US Army Corps of Engineers

Marine Design Center

REQUEST FOR PROPOSALS

FOR

20-INCH CUTTERHEAD SUCTION DREDGE

DACW61-03-R-0022

DEPARTMENT OF THE ARMY
Corps of Engineers
Marine Design Center
Philadelphia, PA

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CAUTION TO BIDDERS

All information required by the terms of the Solicitation must be furnished. MISTAKES OR OMISSIONS CAN BE COSTLY. Important items for you to check are included in but not limited to those listed below. This checklist is furnished only to assist you in submitting a proper bid. Check as you read.

[ ] Are you registered in the Central Contractor Database? See DFARS Clause 252.204-7004 "Required Central Contractor Registration" in Section I of this solicitation?

[ ] Are in compliance with the VETS-100 reporting requirement? See FAR 52. 52.222-37 "Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans in Section" in Section I of this solicitation?

[ ] Have you acknowledged all amendments? Have you submitted your bid on the latest amended bid schedule?

[ ] Have you completed the "Representations and Certifications" {Section K} portion of the Solicitation? Is your Contractor Establishment Code listed on the Standard Form 33?

[ ] Is your bid properly signed by an officer of your company?

[ ] If a bid guarantee is required, is it included with your bid and is it in the proper amount? {Usually 20 percent of the total bid price, including any options or additives.} If your bid guarantee is in the form of a bid bond, is the bond properly signed by both the bidder and surety (BONDING DOCUMENTS SHOULD BEAR AN ORIGINAL SIGNATURE AN OFFICER OF THE SURETY) and are all required seals affixed? A bid guarantee is required when your bid exceeds $100,000.00. A late bid guarantee is treated the same as a late bid.

[ ] Is the name in which you submitted the bid the same on your bid as on the bid bond?

[ ] If required, have you entered a unit price for each bid item? {The solicitation will specifically state when this is necessary.}

[ ] The Government may reject a bid as nonresponsive if it is materially and mathematically unbalanced as to price for any bid item or combination of items. A bid is unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

[ ] Are decimals in unit prices in the proper places? Are your figures legible?

[ ] Are the extensions of your unit prices, and your total bid price correct?

[ ] Are all erasures or corrections initialed by the person signing the bid?

[ ] Have you restricted your bid by altering the provisions of the solicitation?

[ ] If you are a large business and your bid is greater than $500,000 for service or $1,000,000.00 for construction have you included your Sub-Contracting Plan in your bid package? (NOTE: PLEASE REFER TO SUBCONTRACTING PLAN IN SOLICITATION FOR GOALS).

[ ] Is the envelope containing your bid properly identified that it is a sealed bid and does it contain the correct solicitation number and bid opening time?

[ ] Will your bid arrive on time? See paragraph entitled "Late Submissions, Modifications, and Withdrawals of Bids" in the Instructions to Bidders {Section L} of the solicitation.

February 27, 2003

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SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350) ▶ RATING

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
	DACW61-03-R-0022	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)	5/8/03	W25PHS-3100-9014

7. ISSUED BY CODE

US Army Engineer District, Philadelphia
Wanamaker Building, 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390

8. ADDRESS OFFER TO *(If other than Item 7)*

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 2 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Contracting Division, Room 643 until 4:00 pm *(Hour)* local time 6/10/03 *(Date)*

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-10. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL: ▶	A. NAME	B. TELEPHONE NO. *(Include area code) (NO COLLECT CALLS)*
	Michelle Bertoline	215-656-6914

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OFFER *(Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 60 calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, Clause No. 52-232-8)* ▶	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:*	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR — CODE — FACILITY

16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NO. *(Include area code)*

☐ 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.

17. SIGNATURE

18. OFFER DATE

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED

20. AMOUNT

21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:

☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )

23. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)* ▶ ITEM

24. ADMINISTERED BY *(If other than Item 7)* CODE

25. PAYMENT WILL BE MADE BY CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*

27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*

28. AWARD DATE

IMPORTANT -- Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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Design, Construct, Test and Deliver one 20-INCH Cutterhead Suction Dredge for the Corps of Engineers, St. Paul District for use in support of its navigation and maintenance missions on the Upper Mississippi River and its tributaries, in accordance with the attached plans and specifications. In addition, one optional line item may be awarded for spare equipment for the vessel:

ITEM NUMBER	ITEM	QTY.	UNIT	UNIT PRICE	TOTAL PRICE
0001	20-INCH Cutterhead Suction Dredge	1	DREDGE	XXXX	XXXXXXX
0001AA	PLANNING (The submittals required for "Planning" are listed in contract clause H02.). This item is initiated by a Notice To Proceed (NTP) issued by the Contracting Officer.	1	JOB	XXXX	$_____
0001AB	ENGINEERING AND SCHEDULING (The submittals required for "Engineering and Scheduling are listed in contract Clause H02.). This item is initiated only by a Notice To Proceed issued by the Contracting Officer. The Contractor may not start this item until he receives a Notice To Proceed for this item.	1	JOB	XXXX	$_____
0001AC	CONSTRUCT, TEST AND DELIVER the vessel (The submittals for "Construct, Test and Deliver" are listed in contract Clause H02.). This item is initiated only by a Notice To Proceed issued by the Contracting Officer. The Contractor may not start this item until he receives a Notice To Proceed for this item.	1	JOB	XXXX	$_____
	TOTAL ITEM 0001	1	VESSEL	XXXX	$_____
0001AD	SPARE PARTS (OPTION) for the vessel as specified in Section C800 Spare Parts.	1	LOT	XXXX	$_____
	TOTAL FOR DREDGE AND OPTION	1	JOB	XXXX	$_____

INSERT LOCATION OF THE SHIPYARD WHERE THE WORK WILL BE PERFORMED:

_____

_____

The Government may reject an offer as non-responsive if it is materially and mathematically unbalanced as to price for any offered item or combination of offered items. An offer is unbalanced when it is based on prices significantly less than cost for some work and prices, which are significantly overstated for other work.

Refer to contract Section M for EVALUATION FACTORS FOR AWARD criteria.

PART I - THE SCHEDULE - SECTION C
DESCRIPTION/SPECIFICATION/WORK STATEMENT

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PART I - THE SCHEDULE - SECTION C
DESCRIPTION/SPECIFICATION/WORK STATEMENT

C000 GENERAL

C001 GENERAL MISSION STATEMENT

A. GENERAL

The Marine Design Center (MDC) of the U.S. Army Corps of Engineers (USACE) is issuing this Request for Proposals, to procure and contract all services (Engineering, Design, Construction, Testing and Delivery) for the acquisition of one, 20-inch cutterhead suction dredge.

The completed vessel will be operated by the Corps of Engineers' St. Paul District on the Upper Mississippi River, from St. Paul, MN to Rock Island, IL.

B. MISSION STATEMENT

The new dredge shall be equipped to safely and efficiently dredge in its intended area of operation with 5000 feet of 20-inch pipeline. A booster pump and drive, furnished as part of this contract, will permit dredging with pipeline lengths between 5000 and 10,000 feet.

The dredge should require minimal customization for the Corps' application. Pumps and diesel engine drives, power generation and distribution equipment, and all of their supporting ancillary systems shall be arranged to facilitate operation and maintenance. All dredging controls shall be in an elevated control room on or above the main deck of the dredge. The ladder length and cutterhead shall be designed for maintenance dredging of free-flowing, non-cohesive, medium sand (d_{50} = 400-600 microns) at dredging depths up to 25 feet. Dredging operations are routinely conducted in waters strewn with floating and submerged debris.

Dredge portability over land is not required. Design features and vessel arrangements to facilitate over-land portability are considered impediments to maintenance and operation.

The overall length of the dredge shall permit 250 foot-wide cuts while operating at swing angles between 30 and 40 degrees off centerline. If a hinged spud barge is used, its beam shall be as wide as the dredge itself, to accommodate the fleeting arrangements used by the St. Paul District.

Dredge machinery shall feature an inboard dredge pump and a skid mounted, diesel engine-driven booster pump. Diesel generator(s) shall supply all electrical onboard power requirements, and either hydraulic or variable speed electric drives shall power the spuds, ladder hoist winch, swing drive winches, and the cutterhead. A hydraulically operated traveling spud and carriage shall be used to advance the dredge during dredging.

The following dimensional constraints shall apply:

- The highest point on the dredge shall not exceed 45'-0" above the waterline.
- The maximum draft shall not exceed 6'-0".
- The overall beam shall be 40'-0" for compatibility with other floating plant in the fleet.
- The overall length of the dredge shall be determined by the cut width requirement.
- The maximum freeboard shall not exceed 3'-0".

The vessel will be pushed-towed to the job site at the front of a fleet of vessels.

The dredging season is from May to November and consists of a succession of short mobilizations. During operation, he dredge could be subjected to 5 mph river currents and a wind speed of 30 mph. When moored (with both spuds down), the dredge may be subjected to 80 mph wind speeds (and 5 mph river currents). A typical operating day will last 24 hours.

C003 DESIGN STANDARDS

The dredge shall be designed and constructed in accordance with the latest edition and interpretations of the rules, regulations, requirements and standards of the Legislation, Regulatory Agencies and technical organizations listed as follows or as stipulated in the respective specification clause:

- U.S. Army Corps of Engineers, Publication No. EM 385-1-1; "Safety and Health Requirements Manual." May be viewed at internet web site: http://www.usace.army.mil/inet/usace-docs/eng-manuals/em385-1-1/toc.htm
- American Bureau of Shipping (ABS) "Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways."

- American Bureau of Shipping (ABS) "Rules for Building and Classing Steel Vessels":

  - Material Requirements
  - Welding Requirements

- American Bureau of Shipping (ABS) "Guide For Shipbuilding And Repair Quality Standard For Hull Structure During Construction."

- National Shipbuilding Research Program Publication NSRP 0490, January 1998; "Industrial Standards for Hull Structural Penetrations Design Criteria and Details."

- American Welding Society "Guide for Steel Hull Welding", ANSI/AWS D3.5.85.

- U.S. Coast Guard Regulation 46 CFR Subchapter C - "Uninspected Vessels" (but not for electrical design and installation).

- U.S. Coast Guard Regulation 46 CFR Subchapter J - "Electrical Engineering."

- U.S. Coast Guard Regulation 46 CFR Subchapter S - "Subdivision and Stability."

- U.S. Coast Guard, Navigation Rules and Regulations, International and Inland, COMDTINST M16672.2D.

- U.S. Public Health Service (USPHS) Publication No. 393, "Handbook on Sanitation of Vessel Construction."

- Institute of Electrical and Electronic Engineers Standards, Publication No. IEEE-45 - "IEEE Recommended Practice for Electrical Installation on Shipboard."

- Illuminating Engineering Society, "Recommended Practice for Marine Lighting."

- National Electrical Code (NEC).

C004 CLASSIFICATION & CERTIFICATION

The Contractor shall be responsible for preparing necessary drawings and calculations, obtaining necessary regulatory body reviews and approvals, obtaining necessary inspections and surveys during construction and for the certification and classing of the vessel as follows:

- ABS classification for "Maltese Cross A-1 Barge, River Service Maltese Cross AMS" with "Cutter Suction Dredge Service" notation in "Column 5". USACE shall be designated on the Request for Classification as the owner of the vessel.

- The intent of the Maltese Cross AMS is to certify for ship service machinery and electrical systems only. Examples of systems/equipment to be surveyed: electrical power generation and distribution system, bilge system, capstans, fuel system, and potable water. Examples of systems/equipment not surveyed: ladder swing and hoist winches, spud handling equipment, dredge pump and drive, electric and/or hydraulic drive systems for dredging equipment.

The Contractor shall bear all expenses associated with the acquisition of the required classing and certification. The recommended ABS point of contact is Mr. Glenn Ashe who may be reached by phone, E-Mail or mail at: (703) 519-0801, Gashe@eagle.org, or 1421 Prince Street, Suite 200, Alexandria, VA 22314.

For the ABS certificate of classification, the owner shall be listed as "U.S. Army Corps of Engineers, St. Paul District". The owner's address for record shall be listed as CEMVP-CO-PS, P.O. Box 397, Fountain City, WI 54629-0397.

If the Contractor intends to launch, test, operate, or tow the vessel "out of class," the Contractor must specifically advise ABS of such intent and incorporate any and all modifications required by that agency for such operation at no additional cost to the Government and with no additional contract time. Any such modification which, in the opinion of the COR, affects the arrangements, operability or suitability of the vessel shall be removed from the vessel by the Contractor at no additional cost or time and the vessel returned to new condition prior to Final Acceptance.

C005 VESSEL IDENTIFICATION

The vessel to be acquired through this solicitation has been assigned the following name and Marine Design Center hull and project numbers:

MDC Hull Number 659
MDC Project Number.....2457
Vessel Name ..... To be determined

The vessel name has not been selected at this time. For the purpose of initial documents and drawing preparation, the following title shall be used:

"20-Inch Cutterhead Suction Dredge"

Upon selection of the official name for each vessel by the Government, the Contractor shall incorporate the name into all "as-built" documents. The MDC hull number shall be used in lieu of an "Official Number."

C006 SCOPE OF WORK

A. CONTRACTOR'S RESPONSIBILITY

After the contract is awarded, the services to be provided by the Contractor shall be structured and managed by the Marine Design Center, in three phases as follows:

Phase I..... Planning
Phase II.....Engineering & Scheduling
Phase III ..... Construction, Tests & Delivery

In accordance with the three phases, the Contractor assumes complete responsibility for designing, building, testing, and delivering the dredge to meet the requirements of the contract. Should the Contractor determine at any time that he is unable to fulfill those responsibilities, he shall notify the COR immediately of the problem experienced and his proposed manner of correction.

During all phases of this contract, the Contractor is authorized to use the services of Subcontractors performing under his direction and supervision; however, the Contractor shall assume the full responsibility for the Subcontractors' work.

Please refer to Section H of this solicitation for an outline of the deliverables required in each phase of the contract.

B. CONTRACT INTENT

During Phase II, Engineering & Scheduling, the Contractor shall provide engineering and design services to develop the Detailed Design for fabrication. Prior to the start of construction, the Contractor shall submit the Detailed Design of the vessel and its systems to ABS for its approval for design compliance with the certification requirements. Review and approval by the Marine Design Center of the calculations, reports, and drawings developed by the Contractor is also required in this phase to completely demonstrate and represent that the dredge design meets or exceeds the requirements of the solicitation.

The Contractor is officially permitted to procure materials and lead items of equipment during Phase II, only after the system that incorporates those materials and items of equipment have been reviewed and approved by the Marine Design Center.

During Phase III, Constructions, Tests & Delivery, the Contractor is responsible for the following performance in this phase:

- Fabrication of the vessel.
- All required tests to verify that the approved plans were followed, that the standards for certification and mission performance objectives were met, and that all systems operate as specified.
- Delivery.

At the end of construction, a complete set of "As-Built" drawings shall be provided in accordance with Section H of this contract. The Marine Design Center will review only those drawings required for ABS classification, stability analysis, and the final "As-Built" drawings.

C010 DEFINITIONS

The following definitions are applicable to phrases and acronyms used throughout this contract:

- K.O. - Contracting Officer - A person with the authority to enter into, administer and/or terminate contracts and make related determinations and findings.

- COR - Contracting Officer's Representative - a member of the contract management and quality assurance team authorized by the Contracting Officer to perform certain administrative and managerial duties. A copy of the COR's authority letter is furnished to the Contractor.

- GFE - Government Furnished Equipment - Equipment, materials or components furnished by the Government to the Contractor for installation in the vessel.

- USACE - Acronym for United States Army Corps of Engineers.

- MDC - Acronym for Marine Design Center.

- QC - Quality Control - Quality Control is a function of the Contractor. Refer to clause E03. Quality Assurance (QA) is a function of the Government.

- USCG - Acronym for United States Coast Guard.

- SNAME - Acronym for Society of Naval Architects and Marine Engineers.

- DREDGE – the complete dredge plant delivered, including spud barge if one is used.

C025 CONTRACTOR QUALITY STANDARDS

The Contractor shall be responsible for the construction of a complete and functioning dredge. The Contractor shall utilize the specified components so as to meet specification requirements utilizing construction and testing methods to ensure that the complete vessel conforms to the intended design.

Inspection by the Marine Design Center is for the purpose of verifying the proper function of the Contractor's quality control measures and is not to be used as a substitute for control of quality by the Contractor.

A. STRUCTURAL MATERIALS

Unless otherwise specified or noted on the Contract Drawings, all structural hull material shall be in accordance with the following specifications:

- American Bureau of Shipping (ABS), "Rules for Building and Classing Steel Vessels" and "Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways."

- Welding Materials - ABS "Approved Welding Electrodes, Wire-Flux and Wire Gas Combination."

B. STANDARD PARTS AND MATERIALS

All articles, fittings, equipment, machinery, supplies, and materials used in the construction and outfitting of the vessel shall be the highest grade, free from defects and imperfections, unused and, be the standard product of reputable manufacturers, to the maximum extent practicable. Any material not specified shall be the best of their kind for the purpose intended.

Materials specified herein to meet the requirements of standard specifications published by national authorities shall conform with the respective editions, including amendments, specified. No salvage materials shall be used in the work.

C. WORKMANSHIP

All labor shall be especially skilled for each kind of work and under competent direction.

In engaging one kind of work with another, marring or damage of previously acceptable construction shall be cause for rejection. All parts of the vessel intended to join or bear upon other parts shall have complete and solid contact and shall fit together without excessive cold work during erection. Shims or liners shall not be used for the purpose of overcoming a bad fit. Lightening holes may be punched or flame-cut and all edges shall have burrs removed. Holes in members having sharp curvature shall be avoided.

D. WELDERS

All welding under this contract shall be done only by welders who have successfully passed qualification tests accepted by the American Bureau of Shipping or other regulatory bodies acceptable to ABS.

The Contractor shall bear the expense of conducting these tests and shall certify, by name to the Contracting Officer, welders who have successfully passed the prescribed tests and hold current, valid certifications.

The Contractor shall require any welder to repeat these tests when in the opinion of the Contracting Officer, the work of the welder indicates a reasonable doubt of his proficiency. In such cases the welder shall be re-certified as above if he successfully passed the retest; otherwise, he shall be disqualified until he has successfully passed the retest.

The Contractor shall maintain records of each welder's certification during the course of the contract. The records are to be available for examination upon request of the Contracting Officer.

E. WELDING

All welding and welding procedures shall be in accordance with the current rules of the American Bureau of Shipping and ANSI/AWS D3.5-85. All welding equipment used on the work shall be of a modern type subject to close control. The electrodes used throughout the work shall be suitable for use with the parent metal at each weld, and be approved by ABS.

Welding procedures, as to direction, length, numbers and sequence of beads, shall be carefully planned to minimize lock-up stresses. Care shall be exercised to produce smooth even beads, especially on all exposed plating and fittings. Beads shall be ground where directed by the Contracting Officer.

The Contractor shall employ appropriate welding procedures and grounding connections to preclude the possibility of anodic erosion of the hull after launching.

F. INSTALLATION

Materials and equipment shall be installed in accordance with the approved recommendations of the manufacturer, and in compliance with the contract documents. The installation shall be accomplished by workmen skilled in this type of work.

G. PLATE FAIRNESS

Steel plating shall be installed using proper welding procedures and sequences to insure fair, undistorted plating panels. The use of filler materials to surface unfair areas is not acceptable.

Maximum allowable plating distortion is depicted in the "Guide For Shipbuilding And Repair Quality Standard For Hull Structure During Construction" from ABS. Distortion shall not exceed the amounts in this guide.

H. CONSTRUCTION STANDARDS

All material, machinery and equipment shall be new, of current manufacture and suitable for the marine service intended. Spare parts and service shall be readily obtainable.

All material, unless otherwise specified in these specifications or in the drawings, shall be of commercial quality to ASTM, ANSI, or SAE specifications.

During construction and before delivery, the Contractor shall be responsible for protection of all material, equipment, etc., intended for the vessel.

The overweight tolerance of members shall be within the limits defined by the specifications of the American Society for Testing and Materials (ASTM).

All materials shall be free of imperfections due to manufacturing processes and from defects that adversely affect appearance or serviceability.

All sharp edges or projections that constitute a personnel hazard shall be removed or ground smooth. All notches shall have a radius to prevent stress concentrations.

Where aluminum must be attached to dissimilar metals or between dissimilar alloys of aluminum, fasteners shall be of stainless steel of an approved design with insulation as required to eliminate metal-to-metal contact.

All galvanizing shall be done after fabrication by the hot dip process, and the zinc shall be not less than 98% pure. In instances where some types of metals cannot be hot dip galvanized, zinc silicate coating may then be substituted.

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C100 SCIENTIFIC

C105 PRINCIPAL CHARACTERISTICS

The dredge hull shall be raked on the forward end and have chamfered corners. The principal dimensions of the dredge are as follows:

Maximum Length	determined by cut width requirement
Overall Beam	40'-0"
Maximum Draft	6'-0"
Maximum Air Draft	45'-0"

C115 WEIGHT CONTROL

Throughout the design and construction phases, the Contractor shall exercise weight control methods to ensure that the final product meets the draft requirements of this contract.

C125 HYDROSTATICS

During the engineering and scheduling phase, the Contractor shall calculate the hydrostatic properties of the hull form. Spudwells and any cooler recesses shall be accounted for as deductions to the hull.

Prior to delivery of the dredge, the Contractor shall provide to the Marine Design Center the calculated hydrostatic properties delineated in tabular form and modeled for use with GHS computer software.

C130 TANK CAPACITIES

Prior to delivery of the dredge, the Contractor shall provide to the Marine Design Center tank capacity (sounding) tables. Inage capacity sounding tables shall be provided in gallons per inch, set up for 1 inch intervals. As a minimum, the tables shall indicate the volume, the center of gravity coordinates, and the percentage of the capacity volume.

C170 DOCKING PLAN

During the engineering phase, the Contractor shall develop a docking plan for docking the dredge. The bottom structure and the structure in general shall be adequate to dock the vessel on the support blocks as indicated in the docking plan.

An alternative support block location shall be indicated in the plan to enable painting all bottom areas of the hull in two consecutive dockings.

C180 NOISE & VIBRATION CONTROL & ABATEMENT

A. INTRODUCTION

There shall be an effective integrated noise and vibration control and transmission abatement program to minimize noise and vibration on the vessel for all modes of operation.

Guidelines for establishing acceptable exposure to noise levels are given by the Occupational Safety and Health Administration (OSHA), in CFR title 29, part 1910.95 and the USACE Safety Manual (EM 385-1-1).

B. CRITERIA

With the pump, auxiliary and generator engines at full power, the Contractor shall demonstrate that the following noise levels are not exceeded within the designated areas:

Main Deck Exterior..... 85 dB(A)
Dredge Control Room..... 65 dB(A)

Compliance with these limits shall be based on the average of the broadband sound pressure levels taken at various representative locations of the area considered. During testing, the noise values shall be measured using the A-weighted scale with the meter set for slow response.

Some control measures that shall be considered to meet the noise and vibration criteria are as follows:

- Resilient mounting of vibrating machinery.
- Isolating exhaust noise and use of high attenuation mufflers.
- Use of silencers on air intakes and exhausts.
- Effective noise barrier (insulation) around high noise spaces to prevent noise transmission to adjacent spaces.
- Use of sound absorbing material around high noise spaces to reduce contribution of reverberant noise within the space.
- Ensuring that the natural frequencies of the foundations are at least 30% greater than the disturbing frequencies generated by the equipment.
- Ensuring that the local stiffness of foundations supporting resilient mounted equipment are at least 10 times the stiffness of the isolator mount it supports.

C185 TESTS AND TRIALS

This dredge and its component parts shall undergo testing and trials in accordance with Clause E05.

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C200 ARRANGEMENTS

C201 VESSEL CONFIGURATION

A. REQUIREMENTS

Every interior space shall provide a minimum of two distinct means of access/egress for personnel, located as far apart as practical. The means of access/egress can be any of the following types; door, hatch, manhole or a combination of types.

Every item of equipment shall be positioned to avoid interference and provide easy and adequate access from all sides for inspection, maintenance, and repair. Every item of equipment installed inside the hull shall be provided with an easy path for removal through hatches or through removable bolted structure, to allow repair work to be conducted at an external repair shop.

To facilitate removal for repair, every piece of equipment shall be mounted on a foundation by means of fasteners. An adequate number of pad eyes shall be provided overhead to facilitate handling of equipment with a chain fall. In particular, a bolted opening shall be provided above the dredge pump for removal of the pump casing and/or impeller.

Equipment connected to a piping system shall be provided with a means to readily disconnect the equipment from the piping system (i.e. unions or flanges), located as close as possible to the equipment.

Clear headroom in all spaces shall not be less than 7’-0”.

B. RIGGING PLAN

During the engineering phase, the Contractor shall develop a rigging plan for handling major pieces of equipment for removal from the interior of the vessel as applicable. The rigging plan shall establish the number and location of the pad eyes required, and the access for removal and installation. The Contractor shall submit the rigging plan to the Marine Design Center for review and approval.

C205 OUTBOARD PROFILE

The Contractor shall develop an outboard profile drawing of the dredge showing the cutterhead ladder in both the raised and lowered positions. All principal dimensions shall be indicated.

C215 GENERAL ARRANGEMENTS

The Contractor shall develop a general arrangement drawing that includes views at all levels. Sections and elevations shall be included to the extent required to define the location of components and overhead clearances. All principal dimensions shall be indicated and all major components shall be listed and identified. The following features shall be included:

- Rest room located on the main deck.
- Control room arrangement.
- All tanks.
- Winches and spuds.
- Open space for a small workshop (to be added by the owner at a future date).

C245 MACHINERY ARRANGEMENT

A scaled drawing representing the arrangement of the machinery spaces and systems of the vessel shall be developed, depicting in detail the location of all equipment to be installed. Sections and elevations shall be included to the extent required to define the location and overhead clearances of components. All equipment components shall be depicted in their actual profile, vice symbolic representation. All principal dimensions shall be indicated and components shall be listed in the drawing's Materials List and identified on the drawing.

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C300 STRUCTURE

C305 SCANTLING PLANS

The vessel shall be of welded steel construction to meet the ABS certification requirements of the contract. The hull steel shall be ABS Grade A steel.

The Contractor shall develop the structural and scantling drawings for the vessel. The scantlings for the structure shall comply with ABS requirements.

The machinery space floor shall consist of a grating level designed for 250 lbs/sq.ft.

The framing system shall be selected by the Contractor to suit his design and production methods, and to provide for an efficient use of steel, which may result in weight and cost savings.

C315 DECKHOUSE

The deckhouse(s) shall be of steel construction.

C320 TANKS

Fuel oil tank(s) shall not be bounded by the hull bottom or side shell.

The potable water tank shall be a non-integral tank fabricated from 316 stainless steel. Other non-integral tanks shall be designed per ABS deep tank requirements and shall be mild steel.

All tanks, and tank connections (including vents, drains, sounding tubes, fill, and discharge connections) shall be developed by the Contractor.

C330 FOUNDATIONS

Suitable foundations shall be provided under all units of machinery, tanks, deck fittings, winches, and other heavy concentrations of weight to properly mount the item, to distribute the loads to the structure, and to avoid undue stresses and vibrations in the hull.

The natural frequencies of the foundations shall be at least 30% greater than the disturbing frequencies generated by the equipment, and the local stiffness of foundations supporting resilient mounts shall be at least 10 times the stiffness of the isolator mount being supported.

All foundation corners shall be ground smooth.

The Contractor shall provide local adequate hull structural reinforcement to resist the loads resulting from deck machinery and deck fittings, and to transmit and distribute the loads effectively into the hull structure. The design and calculations for the foundation shall be subject to COR approval.

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C400 OUTFIT

C401 GENERAL

Due to the nature of the operation, the vessel may be moored, unmanned, and unattended for extended periods of time. To the maximum extent possible, all materials, equipment and outfit shall be vandal or tamper-proof and theft-proof.

All deck fittings and deck equipment shall be properly mounted on dedicated foundations or plate doublers welded continuously to the deck with local support stiffeners backing up the regular deck structure.

C405 CORROSION PREVENTION

The Contractor shall choose materials, fabrication procedures and coating systems to maximize corrosion resistance and life expectancy.

As an example, the structure shall be designed and fabricated to avoid corrosion by effectively:

- Insulating the contact surfaces between two dissimilar materials against galvanic corrosion.
- Preventing the entrapment of water (facilitate drainage and avoid pockets where water can accumulate).
- Facilitating the application of paint coatings (i.e. avoid the use of intermittent welding and non-accessible voids).

C406 COATING SYSTEM

A. SURFACE PREPARATION

Surface preparation for all structural steel shall be in accordance with Steel Structures Painting Council Standards, SSPC-SP10-85 (Near White Metal Blast) throughout. Profile after blasting shall be 1-1/2 to 2-1/2 mils in depth and jagged. All mill scale, weld spatter, dirt, oil, and grease shall be removed.

Immediately upon completion of surface preparation, all steel shall be coated with the coating system described in the following.

Contractor may limit initial coating to base coat only. In this case, or where pre-construction primer is used prior to application of subsequent coats, all steel shall be either water blasted or sand-swept clean (light blast) and any damaged areas repaired prior to application of the remainder of the system. All areas needing repair shall be cleaned to bare metal, spot blasted to restore profile, and re-coated with the base coat.

B. PAINT REQUIREMENTS

Paint shall be delivered in sealed containers with labels to indicate manufacturer, contents, manufacturing date, and any special instructions. Paints and painting materials shall be stored under cover and protected from extreme temperatures.

Paints shall not be used if they have exceeded the closed shelf life or pot life recommended by the manufacturer. Additionally, paints shall not be applied in weather or humidity conditions not recommended by the manufacturer.

C. APPLICATION OF COATINGS

Surface preparation and paint application shall be in strict compliance with the coating manufacturer's recommendations. The Contractor shall take particular care to insure that coating system requirements are met in all areas, especially those difficult to coat, such as flange undersides. All painting on both the interior and exterior surfaces below the main deck shall be accomplished prior to launching of the vessel.

D. COATING SYSTEM

The system is composed of the following coating types:

- Self priming epoxy base coat
- Flake reinforced abrasion resistant epoxy barrier coat
- Fade resistant urethane top coat

A Paint Schedule shall be developed and submitted to the Marine Design Center during the engineering phase of the contract.

E. PRE-QUALIFIED COATINGS

Coating systems from Ameron, BLP Mobile, and International Paint have been pre-qualified for the system above. The Contractor may select any of these systems at his discretion. However, systems may not be "mixed" (i.e. mixing an "a" with a "b" is not acceptable). The specific coating designations to be used are as follows:

Surface Tolerant Base Coat

a. Ameron Amercoat 370
b. Amercoat 235 (formerly Devoe Bar Rust 235)
c. BLP Mobile MOPOXY-PLUS
d. International INTERTUF 262 (use INTERGARD 403 for ballast tanks)

Abrasion Resistant Epoxy Barrier Coat

a. Ameron Amerlock 400GF
b. Amercoat 238 (formerly Devoe Devguard 238)
c. BLP Mobile MOPOXY-PLUS FG
d. International INTERSHIELD 350

Fade Resistant Urethane Top Coat

a. Ameron Amercoat 450 HS
b. Amercoat 369 (formerly Devoe Devthane 369)
c. BLP Mobile MOTHANE HS-900
d. International INTERTHANE 990 (not for use on exterior hull below the waterline)
e. International INTERGARD 267 (for exterior hull below the waterline)

F. NUMBER OF COATS

The number of coats is not specified. The Contractor is required to provide the number of coats necessary to attain the DFT thickness required in the schedule below. Thickness applied per coat may not exceed the manufacturer's recommended maximum thickness. Each coat shall be listed in the Paint Schedule.

The "under coats" of all multiple coat applications may be "contrast tinted" to ensure complete coverage of successive coats.

G. COATING "TYPE" AND DRY FILM THICKNESS (DFT) SCHEDULE

All areas of the vessel shall be coated in accordance with the following schedule:

1. Hull Exterior (below the main deck)

All steel surfaces shall be coated with base coat at 8 mils DFT minimum.

All hull surfaces shall be overcoated (over the base coat) with barrier coat at 12 mils DFT minimum (not including base coat).

All surfaces shall be overcoated (over the barrier coat) with a top coat at 4 mils DFT minimum (not including the previous coats).

The interior of each sea chest shall be coated in the same manner as the hull exterior.

Lettering and numerals on the hull exterior shall be overcoated (over the barrier coat) with a top coat at 2 mils DFT minimum.

The top coat and the barrier coat shall both be the same color, except the letters and numerals.

2. Main Deck

All steel surfaces shall be coated with a base coat at 8 mils DFT minimum.

All surfaces shall be overcoated (over the base coat) with barrier coat at 12 mils DFT minimum (not including the base coat).

Non-skid garnet additive shall be added to the barrier coat.

Deck area shall be overcoated (over the barrier coat and non-skid garnet) with top coat at 4 mils DFT minimum.

The top coat and the barrier coat shall both be the same color.

3. Deck Fittings

All deck fittings shall receive a base coat at 5 mils minimum and be overcoated (over the base coat) with a barrier coat at 5 mils DFT minimum. A top coat at 2 mils minimum DFT shall overcoat the barrier coat.

4. Compartment Voids & Innerbottoms

All steel surfaces shall be coated with base coat at 8 mils DFT minimum.

5. Exterior Decks (Above the Main Deck)

All steel surfaces shall be coated with base coat at 8 mils DFT minimum.

All surfaces shall be overcoated (over the base coat) with barrier coat at 12 mils DFT minimum (not including base coat).

All surfaces shall be overcoated (over the barrier coat) with top coat at 4 mils DFT minimum (not including the previous coats).

Non-skid garnet additive shall be added to the last base coat.

6. Exterior Deckhouse, Spudwells & Railings

All steel surfaces shall be coated with base coat at 8 mils DFT minimum.

All steel surfaces shall be overcoated (over the base coat) with top coat at 4 mils DFT minimum (not including base coat).

7. Interiors of Spill Containments

All steel surfaces shall be coated with base coat at 8 mils DFT minimum.

8. Machinery Space

All steel surfaces shall be overcoated with base coat at 6 mils DFT minimum.

All surfaces except surfaces to be covered with sheathing shall be overcoated (over the base coat) with a top coat at 2 mils DFT minimum.

9. Deck House Interior

All steel surfaces shall be coated with base coat at 6 mils DFT minimum.

All surfaces except surfaces to be covered with sheathing shall be overcoated (over the base coat) with a top coat at 2 mils DFT minimum.

10. Interior Decks

All steel surfaces, except those receiving a deck covering, shall be coated with base coat at 5 mils DFT minimum.

All steel surfaces shall be overcoated (over the base coat) with a top coat at 2 mils DFT minimum.

11. Ballast Tanks & Oily Bilge Tank

The interiors of these tanks shall be coated with base coat at 12 mils DFT minimum.

12. Fuel Oil Tanks, Waste Oil Tank, & Lube Oil Tank

The interior surfaces of these tanks shall be maintained with a coat of mineral oil applied immediately following surface preparation.

13. Hydraulic Oil Tank

The interior surface of the hydraulic oil tank shall be maintained with a coat of hydraulic oil applied immediately following surface preparation.

14. Potable Water Tank

Tanks are stainless steel. No coating is required.

H. COATING COLOR SCHEDULE

Colors shall conform to Federal Standard No. 595B COLOR BOOK. The book as well as individual paint chips (3” x 5”) may be procured from the General Services Administration/Specifications Section as follows:

GSA/FSS/Specification Section
470 L’Enfant Plaza East SW, Suite 8100
Washington, DC 20407

Phone: (202) 619-8925
FAX: (202) 619-8978

The coloring schedule shall be as follows:

AREA	COLOR/FS595 NUMBER
Hull Exterior	Black/17038
Spuds & Spudwells	Black/17038
Hull Markings	White/27880
Exterior Main Decks	Deck Red/10076
Deckhouse Top	Deck Red/10076
Deck Fittings, Manholes, Hatches	Yellow/13655
Deckhouse Exterior	Old Ivory/17855
Hand Rails & Ladders	Black/17038
Deckhouse Interior	White/17925
Machinery Space	Gray/16473
Compartment Voids	Gray/16473
Innerbottoms	Gray/16473
Interior Decks	Gray/16473
Tanks	Gray/16473
Communication Mark Base Plate	Striping Red/11105

On exterior deck areas, both under coat (barrier coat for hull and base coat for deck other than hull) and top coat shall be the same color.

All top coating shall be thick enough to provide complete opaque color coverage. Thickness increased over the DFT minimums required above shall be provided if required for opaque color coverage.

All items of machinery and equipment shall be painted with the individual manufacturer's standard colors. Painted surfaces damaged in handling and installing the equipment shall be repainted.

All unpainted machinery items having black cast or carbon steel surfaces shall be given a prime coat and finish coat of gray machinery enamel.

I. FINAL INSPECTION OF PAINTING

The Contractor is responsible for delivering the vessel with all painted surfaces in sound condition, and in accordance with this specification.

Prior to launching of the vessel, all interior and exterior painting shall be thoroughly inspected. If there are any defects or damage in the coating of the vessel, the Contractor shall repair the coating to restore the integrity of the paint system, and to meet the requirements of this specification. All damage shall be cleaned to bare metal, spot blasted to restore profile, and re-coated with the entire system schedule.

The vessel shall not be launched until:

- The painting warranty and documentation as required in paragraph J below has been provided to the COR. The warranty and documentation must show compliance with this specification in all areas, and all readings taken.

- The painting has been inspected to the satisfaction of the COR. Contractor must provide warranty and documentation prior to MDC inspection.

If outfitting is required after launching, all interior and exterior painting shall be re-inspected prior to Provisional Acceptance, and any damaged areas of the coating shall be repaired by the Contractor as necessary to restore the integrity of the paint system.

Any additional painting required as a result of the Final Inspection shall be done as required to meet this specification at no additional cost to the Government

J. DOCUMENTATION & WARRANTY

1. Documentation

For the vessel, the Contractor shall provide a written signed statement from the paint manufacturer certifying that all coating application and surface preparation are in accordance with the coating system manufacturer's requirements, and that the coating application meets all requirements in this specification.

The Contractor shall provide documentation logs for each coating applied. The logs shall include the following parameters:

a. Coating (per specification) type.

b. Coating manufacturer's requirements for preparation, environmental conditions and application.

c. Date and time of preparation and application.

d. Extent and location of area coated.

e. Surface: preparation, condition at time of coating, temperature at time of coating, dew point at time of coating.

f. DFT measurements for each applied coating type. Measurements shall be taken as follows:

- All flat surfaces, one reading per every 200 square feet, uniformly distributed.
- Undersides of all flanges, one reading per every 50 linear feet of flange, uniformly distributed.
- All free standing structural members, i.e. stanchions, truss diagonals, etc., one reading per 50 linear feet of length each surface, but a minimum of two readings per surface.

Wet film measurements may be taken and converted to DFT as an alternative to direct DFT. In areas where multiple coating types are required, the above DFT requirements are applied to each coating type.

g. Services provided by paint manufacturer's representative (i.e. DFT readings, dew point, etc.), if present during application.

h. Signature of paint manufacturer's representative on site, if present.

2. Warranty

For the vessel, the Contractor shall warranty the coating system for one calendar year, commencing at Final Acceptance. The Contractor shall repair any coating failures during this time period at his cost.

K. SAFETY & HEALTH STANDARDS

The U.S. Occupational Safety and Health Administration Regulations (OSHA) for shipyard employees engaged in surface preparation and coatings application shall be in accordance with the OSHA regulations stated in 29 CFR, subpart C.

These regulations require the Contractor to have access to a "competent person" to test compartment atmosphere quality. The "competent person" shall be in accordance with OSHA regulations, stated in 29 CFR, subpart A, 1915.7.

The regulations also require that frequent testing of the atmosphere shall be made in compartments being coated or preserved (or prepared for coating or preservation) by paints and coatings dissolved in highly volatile, toxic and flammable solvents (29 CFR, subpart C, 1915.35(b)), to ensure the atmosphere is not hazardous.

Each compartment inspection and test shall be logged on OSHA Form 74, with instructions on how to maintain a safe atmosphere in these spaces until the completion of the contract.

On 24-hours notice of any Government inspection, and before any representative of the U.S. Government boards the vessel for inspection, each enclosed or confined space to be inspected shall be labeled "Safe for Workers" in accordance with the OSHA regulations stated in 29 CFR 1915.31-36. A National Fire Protection Association (NFPA) certified Marine Chemist shall issue the initial certificate. The Contractor's Competent Person may certify that all conditions have been maintained and re-certify in accordance with OSHA, 29 CFR 1915. Results of daily inspection and instrument testing shall be recorded on Form OSHA-74.

This means that in all spaces so designated:

- The oxygen content of the atmosphere is at least 19.5 percent and below 22 percent by volume;
- The concentration of flammable vapors is below 10 percent of the lower explosive limit (LEL);
- Any toxic materials in the atmosphere are within permissible concentrations;
- Any residues or materials associated with any work in the space will not produce uncontrolled release of toxic materials under existing atmospheric conditions while maintained as directed.

The Contractor shall notify the Government when this certificate has been issued for each compartment and tank. The vessel will not be inspected and accepted by the Government without a NFPA Marine Chemist certificate for each compartment designated "Safe for Workers."

C410 HULL OUTFIT

The Contractor shall provide and install 6-inch extra heavy steel half pipe rub rails on the sides, stern, and bow corners of the vessel.

C415 DOORS, WINDOWS, HATCHES & MANHOLES

A. DOORS

All doors shall be 36 inches wide and provide a 6'-6" headroom. All double doors are 2 x 36 inches wide.

All exterior doors shall be flush with the bulkhead, weathertight, gasketed, fabricated of double stainless steel panels, insulated, and fitted with a large fixed "window".

Interior doors shall be double panel hollow steel, flush mounted with the bulkhead.

For all doors, door construction shall render it impossible for water to leak into the door itself between the two door panels.

Watertight doors in the hull shall be gasketed, structural type, quick acting with six dogs, and shall have a sill height of 6 inches above the deck level or grating level.

B. WINDOWS

Windows shall be provided on all sides of the dredge control room for maximum visibility in all directions.

C. MANHOLES

Watertight manholes shall be aluminum, single-bolt, flush type. Two manholes shall be provided for each hull space to make up the two means for access/egress from all compartments, unless door or stairwell access is provided. Manhole covers shall be quick opening type except in the fuel oil tank.

Manholes in the fuel oil tank shall be watertight, flush bolted plate type.

C416 LOCKS & KEYS

All exterior and interior doors, all exterior control stations, and the raised watertight hatch (padlock) shall be fitted with suitable locks.

C420 DECK FITTINGS

Deck fittings shall be welded to deck insert plates and supported with headers and brackets to assure the line loading will be transferred to the main hull structure.

The following shall be provided:

- Kevels
- Double bitts with horns

The strength of the kevels and double bitts shall equal or exceed 100,000 lbs applied statically from any direction.

C425 RAILINGS

Removable guardrails shall be provided in accordance with the USACE Safety and Health Requirements Manual (EM385-1-1).

C427 VERTICAL & INCLINED LADDERS

Steel vertical ladders, 18 inches wide, shall be provided and installed under all manholes. A 7 inch toe clearance with rung spacing to not exceed 12 inches is required for each vertical ladder. The vertical ladders shall be removable.

Tread width of inclined ladders shall be 36 inches by 7 inches, and the tread spacing shall not exceed 10 inches vertically.

The slope of the inclined ladders shall not exceed 50 degrees from the horizontal. The inclined ladders shall be removable.

Non-skid landings shall be provided at the top and bottom of all ladders.

C430 DECK COVERINGS

The decks in the machinery space shall be made of aluminum diamond tread plates. Each plate shall not weigh more than 75 lbs in order to be easily removed by one person. The plates shall be isolated from the supporting structure with rubber gasket material to reduce noise, vibration, and galvanic corrosion.

C436 INSULATION

The insulation shall be applied to the structure over the paint system. Use of glue to secure the insulation material to the structure is not permitted, and the method of fastening must be in place prior to the application of the paint system. Use of asbestos material is not permitted.

Four inches of thermal insulation shall be applied to the bulkheads and the overhead of the deckhouse, as well as the machinery space bulkheads and overhead.

Where insulation will be visible, the appearance shall be that of a hard surface with a tough puncture resistant cloth, finished with a coat of vapor barrier compound.

In the rest room the bulkheads and overhead coverings shall be watertight and easy to clean.

The exhaust pipe from the diesel generator sets and any pipe that may present a temperature hazard (in excess of 125 degrees F) shall be insulated.

Piping, if running overhead in the deckhouse, shall be insulated to prevent condensation.

C437 FURNITURE & FURNISHINGS

Furniture and furnishings shall be provided by the Contractor.

The following shall be provided in the rest room:

- A stainless steel cabinet with mirror and shelf over the sink, with provision for folded paper towel storage and dispenser incorporated in the cabinet.
- Fluorescent lighting over the mirror, and a GFCI receptacle, rated for 15 amps.
- A low consumption toilet (1.6 gallons) with a tank and elongated rim. The toilet shall be provided with an open front seat with lid.
- A vanity with sink and storage base beneath.
- A fixed stainless steel liquid soap dispenser near the sink.

The following shall be provided in the dredge control room:

- Movable swivel operator's chair.
- Control and operating console.

C445 LIFESAVING, FIRE & SAFETY

Lifesaving, fire and safety equipment shall be provided in compliance with the 46 CFR requirements.

An eye wash station shall be provided.

C456 CAPSTANS

The Contractor shall provide and install a total of three, 10 hp, electric capstans. Two shall be located forward on the horns of the dredge, and one shall be located aft, in the center of the deck.

C460 NAMEPLATES, NOTICES & MARKINGS

The Contractor shall fabricate and install nameplates, notices and markings as required by the design standards. In addition, the following shall also be provided and installed.

A. NAME BOARDS

Two, vessel, name boards shall be provided and installed on the top of the dredge deckhouse, port and starboard. The name of the dredge shall be supplied by the COR and the exact mounting location approved by the COR prior to installation.

Each name board shall be made of mahogany wood, rectangular in shape, 2 inches thick, with 8 inch high Gothic letters carved into the wood and a 2 inch border all around. The letters shall be painted in gold leaf. The surface of the boards shall be varnished.

B. DRAFT MARKS

Draft marks of raised Arabic type numerals, 6-inches in height and cut from 3/8 inch steel plate, shall be continuously welded to the shell plating.

The draft marks shall be measured from the underside of the bottom plating projected to the bottom of the numerals. The rubbing strips shall be centered on the draft numbers, and provide a radiused cut out to accommodate the draft marks welded directly to the side shell (recessed in the rubbing strips).

Draft marks shall be located on each end of the vessel, port and starboard, as well as on the side shell adjacent to each spud well.

C. HULL MARKINGS

The letters for the words “CORPS OF ENGINEERS” and “U.S. ARMY” shall be cut from 3/8 inch steel plate and welded to the hull forward of the aft draft marks, centered equally spaced from the rubbing strips top and bottom. The letters shall be 7 inches high and 10 inches high respectively, and the vertical spacing between the two words shall be 5 inches, with “U.S. ARMY” centered under “CORPS OF ENGINEERS”.

D. COMMUNICATIONS MARK & SIGNATURE

Two Corps of Engineers “Communications Mark & Signature” devices shall be fabricated and installed, one each side of the deckhouse.

The base plate for the Communications Mark shall be 3'-6" x 4'-6", cut from 3/8 inch thick, 316 stainless steel. The base plate background for the Communications Mark shall be coated with red urethane paint (see contract Clause C406).

The castle and border of the Communications Mark shall be made of 316 stainless steel plate, 3/8 inch thick and shall not be painted. The castle and border shall be attached to the base plate with 1 inch long stainless steel standoffs. Each base plate shall be attached to the deckhouse side with 1 inch long stainless steel standoffs.

E. NOTICES & MARKINGS

Weather exposed notices and markings shall be fabricated from brass and shall be attached with stainless steel screws.

Interior notices and markings shall be engraved on brass or plastic plates, and shall be attached with stainless steel screws or approved adhesives.

As a minimum, the following signs shall be provided:

- Four signs reading "DANGER NO TRESPASSING U.S. GOVERNMENT PROPERTY". Two of the these signs shall be installed on the sides of the dredge deckhouse, facing outboard, 6 feet above the main deck level, port and starboard.

- Each doorway shall be labeled above with compartment designation.

- "NO SMOKING" notices shall be placed at each flammable fluid fill and transfer station and on the doorways to the machinery space.

- Confined spaces shall have a sign stating "CONFINED SPACE – ENTER BY PERMIT ONLY" that shall be located at each entry to each tank, hull void and hold compartment.

- Machinery, valves, and electrical equipment labels shall be as specified in contract Clauses C602 and C702, and as required by the standards.

- Manholes, vents, fills, and sounds shall be marked with tank number and intended service with brass tags.

- Hearing conservation warning signs shall be as required by the standards.

- Eye protection and hardhat area signs shall be provided on the inside of all door exits leading to the main deck.

C472 NAVIGATION & COMMUNICATION EQUIPMENT

Appropriate navigation lights and shapes (day markers) as required for operation on the Mississippi River System and its tributaries shall be provided for the dredge in accordance with the USCG Navigation Rules International-Inland.

The Contractor shall install a FURUNO FR 8250D, type RDP-068 radar, furnished by the Government. The unit operates off of 28 volt DC and has an 8 inch by 8 inch base. The Contractor shall provide and install the power supply for the radar.

The Contractor shall provide and install a loud hailer and horn in the dredge control room, with exterior speakers mounted on the dredge deckhouse and interior speakers mounted in the machinery space.

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C500 SPECIAL FEATURES

C504 DREDGE PUMPS

The Contractor shall furnish two, identical, diesel engine driven, single-suction, single-walled, centrifugal pumps suitable for handling slurries consisting of river water, debris and medium sand. One pump and its driver shall be installed by the Contractor in the dredge pump room; the other shall be installed by USACE personnel on an existing barge for use as a booster pump when operating with pipeline lengths greater than 5000 feet. The booster pump and drive shall be furnished on a common skid with integral fuel tank. The pump suction and discharge diameters of the pumps shall be suitably sized for the 20-inch pipeline and the requirements specified.

The pumps provided shall have a proven record of efficient operation and a minimum sphere clearance of 10 inches. Pump performance shall be capable of delivering 1000 yd^3/hr when operating with 5000 feet of pipeline and no booster pump, or with 10,000 feet of pipeline and the booster pump located at 5000 feet. Assume a lift of 30 feet and a dredging depth of 20 feet at all pipeline lengths.

The single piece pump casing, impeller and renewable head liners shall be of high chromium alloy cast iron. Both the impeller and the casing shall have superior abrasion resistance characteristics and be suited for moderate impact loads. The impeller shall be adjustable to maintain impeller-head liner clearances.

The pump shaft shall be oversized and of high strength alloy steel. A replaceable shaft sleeve shall be provided where the shaft passes through the stuffing box. Packed box type shaft seals, if used, shall be water lubricated and adjustable without disassembly. Thrust and radial bearings shall be anti-friction type.

The impeller shall be attached in such a manner as to allow removal through the suction-side head. A lifting hook shall be provided for removing the impeller.

A replaceable root knife shall be supplied for installation on the inlet side of the pump. See contract Clause C570.

C506 DREDGE PUMP DRIVE SYSTEM

A. GENERAL

The dredge pump drive system shall include a variable speed, electric motor drive or a diesel engine, a reduction gear, coupling(s) between the driver and the gear, and a coupling between the gear and pump.

B. DREDGE PUMP ENGINE

If an engine pump drive is use, it shall be a 4-cycle diesel engine rated for continuous operation at its maximum required hp, plus any auxiliary loads driven off of the dredge pump engine. Power shall be transmitted to the pump through a flywheel mounted, torsionally resilient coupling, a clutch, a reduction gear and a flexible coupling between the gear and the pump.

The diesel engine shall have the following features:

- Grid cooler, box cooler or channel bar cooler.
- Duplex RACOR fuel oil filter-water separator.
- Turbocharger and exhaust manifolds insulated or jacketed to maintain an outer skin temperature of less than 125 degrees F.
- Engine overspeed protection.
- USCG approved flexible connections for supply and return fuel lines at the engine.
- Ball valve and quick disconnect fitting at the engine sump so that oil can be added to or drawn from the sump.
- Full length drip pan under the engine.
- Local (engine mounted) and remote instrumentation panels.
- Convenient access for engine maintenance points (dipsticks, etc)
- Lifting eyes and mounting support. The Contractor shall be responsible for supplying suitable foundations for the engine and marine transmission.
- Four sets of manuals for the engine, clutch and gear. See contract Clause H16.
- Exhaust emissions that comply with MARPOL 73/78 Annex VI.
- Electronic governor.

The engine(s) and all associated equipment shall be installed in strict compliance with the engine manufacturer's recommendations with the installation approved by the engine manufacturer's field representative.

Controls shall be provided for starting and stopping the engine or motor, and for engaging the clutch, from either the dredge control room or the local engine control panel.

The Contractor shall provide and install in the dredge control room console an emergency engine shutdown. The emergency shutdown shall be alarmed at the local engine control panel. Normal operation shall be resumed only after manual reset of the emergency shutdown at the local engine control panel. No automatic restarting is allowed after activation of the emergency shutdown.

The local engine control panel shall have, as a minimum, the following instrumentation:

- Engine service meter.
- Engine tachometer.
- Jacket water temperature gauge.
- Lube oil pressure gauge.
- Lube oil temperature gauge.
- Transmission oil pressure gauge.
- Transmission oil temperature gauge.

The engine instrument panel in the control room console shall have the following instrumentation:

- Shaft tachometer.
- Engine tachometer.
- Jacket water temperature gauge.
- Lube oil pressure gauge.
- Transmission oil pressure gauge.

The gauges in the control room instrument panel shall be furnished with lights and dimmer switches.

Alarms shall be provided for the engine and gear. The alarm panels shall be located both in the dredge control room and in the machinery room. The panels shall be set up such that silencing an alarm at one panel automatically silences the alarm at the second panel.

Alarms shall have both audible and visual signals at both control panels. The alarms shall be provided with fault light lock-in circuitry, lockout of additional alarm lights after engine shutoff, alarm silence buttons, and circuit test button.

As a minimum, the following alarms shall be included in each panel:

- Engine overspeed.
- Low lube oil pressure.
- High jacket water temperature.
- Low gear oil pressure.

C. REDUCTION GEAR

The dredge pump shall be driven through a marine reduction gear having a minimum service factor of 1.5 for the rated hp of the engine. The gear shall be provided with the following:

- Dynamically balanced, surface hardened and precision ground, single or double helical gears on alloy steel shafts mounted on tapered roller bearings.
- Bearings with a 30,000 hour B-10 life (minimum).
- A rigid, welded, stress-relieved housing with bolted inspection plates and cleanout covers.
- Alloy steel forged gears.
- A complete lubrication system.

The gear shall be equipped with a motor driven jacking gear capable of rotating the entire dredge pump drive to enable dismantling of the pump impeller. Arrangement for locking the shaft shall also be provided. An interlock shall be provided so that dredge pump starter cannot be energized simultaneously when either the jacking gear or the shaft lock is engaged.

D. ALIGNMENT

The dredge pump drive system shall be aligned when the vessel is afloat at its operating draft. All alignment shall be performed in the presence of the COR or his designated representative and in accordance with the equipment manufacturer recommendations.

E. BOOSTER PUMP ENGINE

The booster pump shall be mounted together with its reduction gear, fuel tank, and engine on a skid for mounting on a remote barge or shore location. The booster pump and drive installation shall be as identical to the in-hull pump and drive as practicable. Monitoring and controls for the booster pump shall be via radio telemetry control so that the booster pump can be monitored and controlled from the dredge control room.

C518 DREDGE PUMP PRIMING

The dredge pump shall be provided with a priming system connected to the vessel's raw water system (contract Clause C645). Controls shall be provided for monitoring and controlling pump priming from the dredge control room.

C519 DREDGE PUMP GLAND FLUSHING

The dredge pump shall be provided with a gland flushing system capable of providing raw filtered water (contract Clause C645) to the dredge pump gland.

C525 DECK CRANE

A deck crane shall be provided over a removable section of the superstructure top for use in replacing components of the dredge pump. The crane shall have a capacity rating no less than the weight of the dredge pump casing, shall be capable of being slewed 270 degrees and shall have sufficient outreach to offload its cargo over the side of the dredge.

C540 CUTTER & DRIVE ASSEMBLY

The dredge shall have a cutter head powered by a variable speed electric drive capable of being operated at speeds ranging from 0 rpm to rated speed. The cutter shaft shall be of high tensile steel. The motor shall be rated for at least 250 hp. The reduction gear shall have a minimum service factor of 1.5.

The cutter shall be provided with two replaceable cutter heads: a plain basket type and a toothed basket type.

C550 SPUDS, SPUD HOIST & TRAVELING CARRIAGE

The vessel shall be furnished with a traveling carriage system consisting of a traveling type working spud and a non-traveling auxiliary spud. The spuds shall be designed to operate in 20 feet of water flowing at a rate of 5 mph, with a wind loading of 30 mph on the vessel. When the dredge is moored with both spuds lowered, the wind loading may reach 80 mph. In their stowed position the spuds shall not exceed the vessel air draft requirement of 45 feet above waterline, nor shall the spuds protrude below the bottom of the hull. A means shall be provided for locking the spuds in the raised position.

Both spuds shall be raised and lowered either by winches or single-acting rams. The rams shall be powered by a hydraulic power unit in the machinery space; the winches may be either electric or hydraulically powered. The spud system shall incorporate spud sheaves for hoisting the spud. Winches, if provided, shall be capable of free falling, as well as power lowering, the spuds. If hydraulic rams are used, the cylinder stroke shall be half the required spud hoisting distance.

The traveling carriage shall be actuated by either by an electric winch or a hydraulic ram used to advance and retract the working spud over a distance equal to 3 times the length of the cutter. The ram shall be linked to the carriage by a ball joint. The hydraulic unit(s) must be complete, including hydraulic reservoir(s) and local controls. The hydraulic system shall be designed to operate with biodegradable synthetic fluid (i.e. Chevron Clarity hydraulic oil AW ISO 32). System controls shall be provided for position monitoring, as described in contract Clause C598.

C551 SPUD HEIGHT MARKING & CERTIFICATION

A. HEIGHT MARKING

The spuds shall be marked to aid in determining their maximum draft and air draft (height above the waterline). The horizontal reference plane for the marks shall be the top of the well cap. The marks shall be visible from the local operating station.

The Contractor shall select a method of marking that is permanent and highly visible.

When the bottom of the spud depth zero mark lines up with the reference plane, then the lower tip of the spud shall be flush with the bottom of the vessel. The air draft of a spud shall equal the spud length overall minus the wet length overall of the spud. The wet length shall equal the vessel draft (marks located on the side shell of the vessel at spud locations – see contract Clause C460) plus the spud depth mark reading.

The Contractor shall mark the spud depth below the vessel bottom on the spud in five foot increments in accordance with the above. One foot interval marks shall be designated between the five foot marks. A 3 inch wide white stripe shall be painted all around the spud, with the bottom edge of the stripe indicating the uppermost position of the spud.

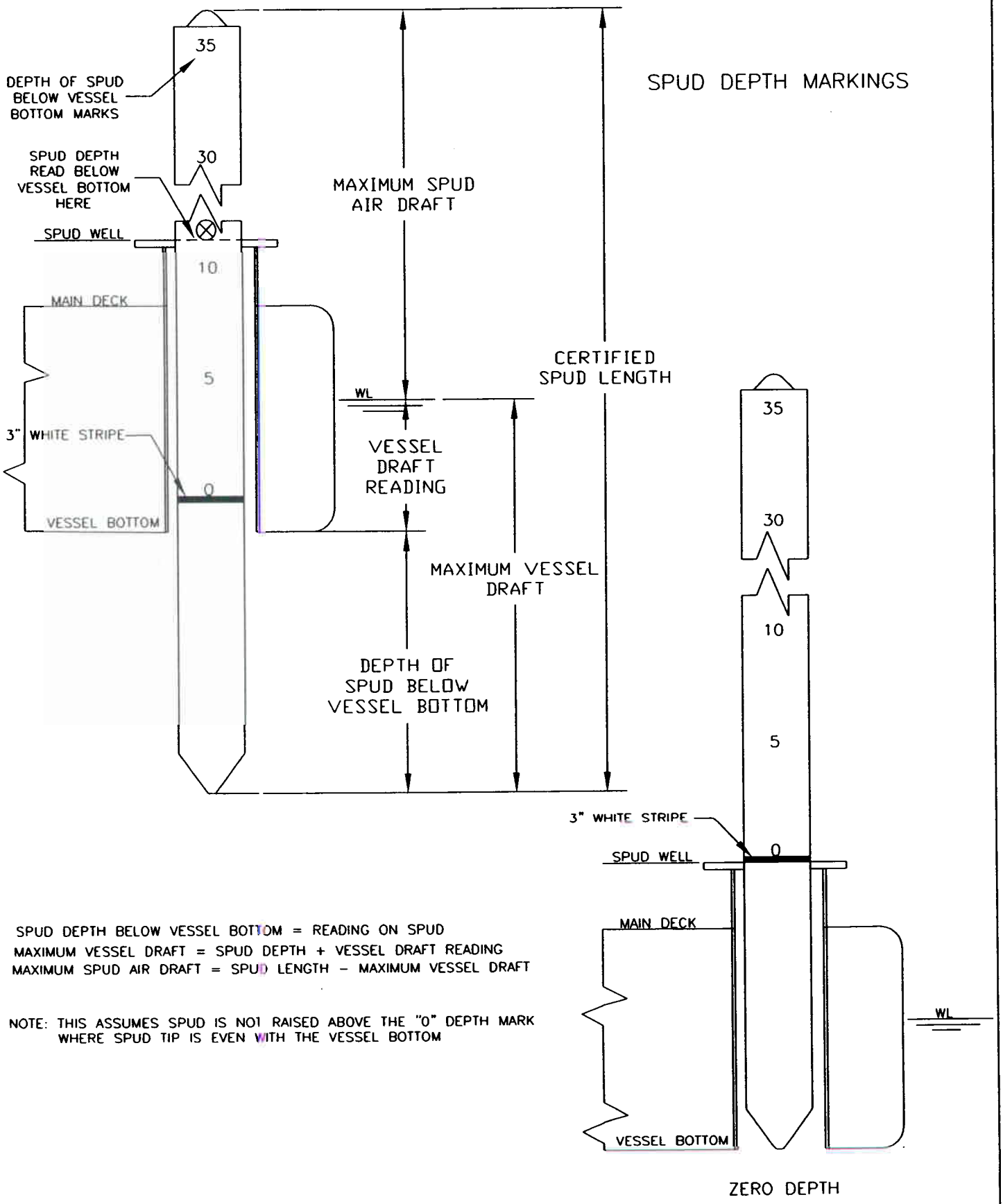
The Contractor shall supply and install in the vicinity of each spud, an information plate listing the certified spud length and how the vessel maximum draft and spud air draft are determined. The information plates shall be permanent, legible and include a diagram. See attached Sketch #551A – Spud Depth Marking as an example.

B. CERTIFICATION OF SPUD LENGTHS

The as-built dimensions of the spud(s) shall be verified by the COR prior to installation of any spuds on the vessel.

C552 SPUD WELLS

The spuds shall be mounted in steel spud keepers with spud keeper gates and hinges to facilitate removal of the spuds for maintenance. A locking latch dog shall be provided and designed to hold 150% of the total dry weight of the spud when the spud is in its raised position.



SPUD DEPTH BELOW VESSEL BOTTOM = READING ON SPUD
MAXIMUM VESSEL DRAFT = SPUD DEPTH + VESSEL DRAFT READING
MAXIMUM SPUD AIR DRAFT = SPUD LENGTH - MAXIMUM VESSEL DRAFT

NOTE: THIS ASSUMES SPUD IS NOT RAISED ABOVE THE "0" DEPTH MARK WHERE SPUD TIP IS EVEN WITH THE VESSEL BOTTOM

G: \CAD\STDPLAN\SKETCH 551A -SPUD DEPTH MARKING

C554 SWING & LADDER HOIST WINCHES

A. GENERAL

The swing and ladder hoist winches shall provide safe, reliable and smooth operation in both directions, throughout their range of speed and power. These winches shall provide stepless variable speed operation.

Winch drums shall be flanged and provided with positive holding mechanisms capable of holding the drum under a line pull equal to the breaking strength of the rope. The design shall ensure easy line replacement. Fail-safe brakes shall hold all drums in the event of a drive failure.

All sheaves shall be anti-friction, sealed, tapered bearing type.

If hydraulic winches are selected, the hydraulic system shall operate on biodegradable synthetic fluid (i.e. Chevron Clarity hydraulic oil AW ISO 32).

Manual controls shall be provided to operate all functions of the winches from one central control station in the dredge control room.

B. SWING WINCHES

Two swing winches shall be provided for the dredge. The winches shall be capable of swinging the ladder through its full range of motion.

Each winch shall be furnished with 1200 feet of wire rope. Swing wires shall have a safety factor of 5. Swing winch line pull shall be sufficient to hold the cutting edge firmly against the cut. As a minimum, the line pull shall be capable of applying a force greater than 1.5 times the maximum force exerted by the cutter. Line speed shall be continuously variable from zero to 80 feet per minute, depending upon the amount of line pull, and from 80 to 150 feet per minute when operating in a free spooling, i.e., unloaded, mode.

C. LADDER HOIST

The ladder hoist winch shall be capable of raising and power lowering the ladder at a rate of 40 feet per minute minimum. The winch shall have a disc type brake for holding the load and a positive, mechanical means of holding the ladder when in the stowed position. Winch drive power may be either electric or hydraulic.

The ladder hoisting wire shall have a safety factor of 5. Maximum line pull shall be sufficient to raise the ladder through a collapsed bank with approximately 5 feet of material burying the cutter.

C560 DREDGE LADDER

The ladder shall be of welded steel construction and have fabricated steel trunnions and replaceable, pinned bushings. The ladder and assembly shall be of sufficient length and strength to dredge at a maximum depth of 25 feet at a maximum of 60 degrees angle with the water plane. Balanced type swing sheaves shall be provided on each side of the forward end of the ladder.

The ladder shall be suspended from an A-frame constructed of structural steel with rigid backstays. All structure and rigging including blocks, tackle, brackets, frame feet and doubler plating shall be of sufficient strength to easily raise the ladder in all modes of operation.

Means shall be provided for locking the ladder in a raised position, independent of the hoisting wires, during towing or maintenance.

C570 SUCTION & DISCHARGE PIPING

All dredge pipe and fittings shall be fabricated from high abrasion resistant steel suitable for dredging service. Arrangement of the pipe shall permit rotation to equalize wear.

Suction piping shall be sized to match the pump suction. The connection between the ladder and the hull shall be made with a heavy-duty abrasion resistant rubber hose rated by the manufacturer for a full zero to 60-degree bending service. An expansion type spool piece with a clean-out connection shall be installed at the suction line near the pump. A replaceable root knife shall be bolted into the suction pipe to break up debris entering the impeller suction. An automatic acting vacuum relief valve shall be provided in the suction line near the cutter.

Discharge piping shall be 20-inch I.D. and shall be securely supported. A back flow prevention valve shall be provided in the discharge line.

C580 WIRE ROPE CERTIFICATION

The Contractor shall provide the COR with a “Certificate of Examination and Test of Wire Rope Before Being Taken Into Use” for each wire rope installed on the dredge’s winches. The certification shall be performed to the requirements of 29 CFR, part 1919 and be in accordance with the requirements of 29 CFR 1918.11(a).

C598 DREDGING CONTROL SYSTEM

Manual controls shall be provided in the dredge control room for braking, speed and direction of the swing and ladder hoist winches, the spud hoist and the traveling spud.

Dredge production efficiency shall be enhanced by a fully integrated, PLC based system for automatic monitoring and control functions as described below. To facilitate automation, the dredge shall be provided with the following instrumentation and equipment:

- Vacuum meters, pressure gauges, and tachometers for both the inboard and booster dredge pumps.
- Electro-magnetic velocity measurement.
- Gamma gauge density measurement.
- A vacuum-relief valve.
- Spud carrier linear position measurement.
- Spud carrier begin-and-end position sensors.
- Ladder angle measurement with synchro resolver.
- Ladder trunnion depth measurement.
- Gyrocompass with synchro output.
- Swing winch speed, direction and load.

The automatic control system shall have the following features:

- Data collection and analysis: The system shall monitor analog and digital input signals received from sensors to fully define, both numerically and graphically, the dredge production rates, cutterhead position and speed, and spud carrier position. The system shall include Pentium PC's, PLC processor, color printer, and monitor, uninterruptible power supply (UPS), keyboard(s) and all appropriate software.

- Automatic controls: System shall process inputs from the data collection and analysis to automatically adjust the speed of both the inboard and booster dredge pumps and provide an optimum combination of slurry concentration and flow rate. The controls shall be provided with an override to permit manual control when desired. Additional control capabilities, such as automatic swing, hoist and spud operation, are desirable but not required for consideration of an Offeror's proposal.

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C600 MACHINERY

C601 GENERAL REQUIREMENTS FOR PIPING SYSTEMS & MACHINERY

A. GENERAL

The vessel shall be designed to be self-sufficient for the various machinery systems to the extent specified. The system designs, materials, and equipment shall be suitable for the environmental conditions specified.

All equipment shall be new, of current manufacture, and rated for marine duty service.

Machinery guards shall be provided over all rotating and hazardous machinery. The guarding shall be consistent with that required by the U.S. Army Corps of Engineers, "Safety and Health Requirements Manual."

Manufacturers' recommendations, concerning fabrication and installation, shall be followed in addition to these specifications.

B. PRESSURE & TEMPERATURE GAUGES

All pressure gauges shall give readings in psig and all temperature gauges shall give readings in degrees Fahrenheit. The gauges shall be selected so the operating point is in the middle of the gauge range. All gauges shall be fitted with gauge isolation valves.

Pressure gauges shall be provided on the discharge of all pumps, and pressure/vacuum gauges shall be provided on the suction side on all positive displacement pumps and the bilge and ballast pumps.

Temperature gauges shall be provided on all piping that transfers a medium in excess of ambient temperature.

C. PIPING – GENERAL REQUIREMENTS

The use of the designation "line" in this specification is defined as all pipe, fittings, and valves in a piping run between the points indicated.

Piping shall be sized and arranged to obtain optimum operating conditions for the equipment and intended service. Items of piping not covered in these specifications, but required for proper installation and operation shall be furnished and installed the same as if specified.

System design shall route all piping as directly as practicable; shall not interfere with structure, machinery access or handling gear; and shall be sufficiently flexible and supported to account for thermal expansion, shock, vibration and the working of the vessel. Wherever practicable, piping shall be run below the grating or sole level. No piping runs shall be made through access openings.

A sufficient number of unions and /or flanges shall be installed in all pipe lines to permit dismantling of the lines and equipment. Valves shall be installed in sufficient quantity to isolate any piece of equipment in the systems.

Sufficient drains shall be provided to permit draining of all lines with the vessel in a zero trim and zero heel condition. The drains shall be provided at low spots in the piping, located so that they will be readily accessible. Screwed plugs shall be brass in all piping systems, or stainless steel where brass is prohibited.

Pipes passing through watertight or oiltight bulkheads shall be made of extra heavy pipe in that section, in way of the penetration and the bulkhead or deck shall maintain its integrity. Where pipes pass through watertight bulkheads or decks, the penetrations shall be watertight.

All lines leading to overboard discharges shall have a downward slope of 45 degrees or better towards the waterline.

Heat sensitive materials shall not be used in piping systems that penetrate watertight subdivisions where deterioration of such systems would, in the event of a fire, impair the watertight integrity of such bulkheads. Copper tubing that penetrates watertight bulkheads and decks shall use a suitable stuffing tube. Spool pieces with flanges shall be provided for all galvanized pipe penetrations to prevent the destruction of galvanizing due to welding.

All piping exposed in unheated spaces or to the weather and carrying fluids that can freeze shall be electrically heat traced. Freeze protection shall be provided by installing drain plugs at all low points in all piping systems carrying fluids that can freeze.

All fluid fill points shall be located in areas that are easily accessible and potential fluid spills shall be collected in containment coamings that shall be easy to drain and clean.

D. PIPING – SPECIFIC REQUIREMENTS

All piping shall be schedule 40, ASTM A-53, Type S or E except where otherwise indicated.

All piping between the side shell and the first inboard valve shall be a minimum of schedule 80. Fasteners for valves at the hull connections and sea chests shall be stainless steel. All tank penetrations shall be through schedule 80 welded couplings unless specified elsewhere.

Drains, ½ inch minimum, shall be provided at the lowest points in each water system, and shall consist of a valve and nipple with a plug. The water piping runs shall be arranged to facilitate complete draining (no loops or water traps) and suitably located hose connections (with plugs) shall be installed for blowdown with compressed air.

E. VALVES

When three or more valves are located together for the same service, they shall be combined in a manifold.

Manually operated valves shall be readily operable by one person, directly or through mechanical advantage type operators.

Remote operated valves shall also be operated locally. All valves must be OS&Y and rising stem type or fitted with open/close indicators. The valves shall be clockwise closing.

Check valves shall be of a type best suited for the service condition, especially the flow velocity to ensure that the valve will fully open. A check valve shall be installed where a reversal of flow is possible and would be detrimental to proper functioning of the system or might be injurious to equipment.

No cast iron valves or wafer valves shall be used at shell connections.

Gate valves shall not be installed for throttling the flow.

F. PIPE ROUTING RESTRICTIONS

Piping shall not be run over or in the vicinity of switchboards, distribution panels, or other electrical equipment unless unavoidable, in which case flanged joints, valves, etc. shall not be installed in the vicinity.

Piping conveying flammable materials shall not be routed adjacent to or over hot surfaces unless unavoidable, in which case adequate shields shall be provided.

G. PIPE HANGERS

Rigid hangers shall be designed and located in accordance with ASTM Practices for the Design and Installation of Rigid Pipe Hangers, F708-92 (1997). The hangers shall safely support the weight of the piping, its operating or test fluid (whichever is heavier), and its insulation and lagging (where installed).

The number of supports installed, the type selected and their location shall prevent excessive vibration of piping under all system operating conditions, but they shall not constrain the piping to such an extent as to cause excessive transfer of load from support to piping or from support to support.

The locations and type of supports selected shall be to prevent excessive stress from being transmitted by the piping to machinery, equipment, or ship structure.

Hangers for copper pipe or tubing shall be lined with plastic. Non-ferrous metal pipes shall be insulated from direct contact with any steel structure.

H. PIPE CLEANING

All piping, piping appurtenances and applicable equipment shall be thoroughly cleaned after fabrication and prior to installation in the vessel. After complete installation, each system shall be thoroughly cleaned and flushed of all foreign matter with the applicable system's medium, or an approved substitute.

System flushing shall be conducted at the applicable system's maximum operating pressure and temperature, and above normal line velocity. However, prior to flushing operations, such units as heat exchangers, and control valves, having in-line mechanisms capable of trapping or being affected by the carryover of foreign matter, shall either be removed or blanked-off and bypassed.

I. PUMPS

All centrifugal pumps shall be horizontal type and as much as possible, horizontal split case type. The required NPSH for the selected pumps must be checked against the available NPSH for each service. With the exception of the dredge pump, flex joints shall be provided at the suction and discharge connections of each fixed and hard-piped pump.

C602 EQUIPMENT & PIPE MARKING

A. EQUIPMENT MARKING

Nameplates, serial number plates, tags, etc. shall remain in place on the equipment as furnished by suppliers. The Contractor shall use caution during construction to not damage or paint over nameplates. Damaged name plates shall be replaced prior to Final Acceptance.

All nameplates and notices shall be stamped or engraved on brass or plastic plates. All weather exposed nameplates, notices, and markings shall be of brass.

All controls, gauges, switches, etc., shall be labeled with phenolic label plates to permit operation of the vessel. This includes dredge control room equipment as well.

Label plates shall be attached to all mechanical equipment to indicate the system and function of the equipment.

B. PIPE MARKING

The Contractor shall mark all piping in the vessel to indicate is service and usage. The pipes shall be marked at each termination and at each watertight bulkhead penetration to indicate service and flow direction. Piping shall also be marked at the midpoint of long compartment runs.

Where possible, the Contractor shall follow wordings/combinations that conform to ANSI/OSHA specifications. To meet this requirement, standard markers, similar to those available from Seton shall be used.

All piping shall be marked and color coded in accordance with the following:

SYSTEM LEGEND	MARKER COLOR	LETTER COLOR
BILGE	GREEN	WHITE
BLACK WATER	BLACK	WHITE
CO2	RED	BLACK
COMPRESSED AIR	YELLOW	BLACK
DECK DRAIN	GRAY	WHITE
ENGINE COOLING	BLUE	WHITE
FUEL OIL	YELLOW	BLACK
GRAY WATER	GRAY	WHITE
HYDRAULIC	YELLOW	BLACK
LUBE OIL	YELLOW	BLACK
OILY BILGE	ORANGE	BLACK
POTABLE WATER	GREEN	BLACK
WASTE OIL	ORANGE	BLACK

The size of the legend letters and the length of the marker color field shall be as follows:

OUTSIDE DIAMETER OF PIPE OR COVERING IN INCHES	MINIMUM LENGTH OF COLOR FIELD IN INCHES	SIZE OF LEGEND LETTERS IN INCHES
¾ to 1-3/8	8	½
1-1/2 to 2-3/8	8	¾
2-1/2 to 6	12	1-1/4
8 to 10	24	2-1/2
over 10	32	3-1/2

Label plates shall be attached to all valves, manifolds, and pumps to indicate the system and function of the equipment.

For valves, the label plates shall be installed over the stem of the hand wheel, where possible, and shall indicate the direction of opening (or closing). The nameplate shall be 14 gauge (or heavier) brass with ¼ inch high engraved letters filled with black paint.

C630 FUEL OIL SYSTEM

A. GENERAL

All fuel oil piping shall be seamless black steel, A106.

Drip pans shall be provided under all fuel oil consumers and wherever fuel oil can be expected.

B. FUEL OIL TANK

The main fuel oil tank shall have a spill containment device underneath and a valved stripping connection having a cap or plug. The tank shall be complete with inspection openings and all required connections for fill, supply, return, drain, vent, and gauges.

The tank shall be equipped with a sounding tube and an ABS approved fuel level gauge. Remote indicators for the main tank with audible alarms shall be provided at each deck fill station. The alarms shall be set to sound at high and low levels, and must be adjustable to any value between zero and 100% of the tank volume.

C. FILL STATIONS

Fuel oil fill stations shall be located port and starboard on the main deck. The stations shall be capable of receiving fuel from a tank truck or shore facility using either gravity or pressurized fill methods. The fill and vent pipes shall be provided with stainless steel flame arrest screen and cap. A spill containment enclosure having a minimum capacity of 21 gallons shall be provided at each fill station. Each enclosure shall have a 1-inch capped drain line at the bottom and a hinged cover that prevents entry of rainwater while allowing adequate ventilation of the enclosure itself.

D. SUPPLY & RETURN LINES

The fuel supply lines to the diesel engines shall be equipped with USCG approved flexible connections and standard filters and water separators or moisture trap (similar to RACOR) in addition to the engine mounted fuel oil filters. A flexible connection shall also be provided in each diesel fuel return line to the main fuel oil tank. Shutoff valves shall be provided at the inlet and outlet of each filter.

C635 LUBE OIL & HYDRAULIC OIL STORAGE SYSTEMS

Independent tanks shall be designed, fabricated and installed to store new lube oil for the diesel engines and new hydraulic oil for the onboard hydraulic power units. Tank capacities shall be equal to one change of oil in all of their respective users. Each tank shall be equipped with a spill containment coaming and an inspection opening; a valved stripping connection; a vent protected by a 30 x 30 mesh stainless steel flame screen; and an ABS approved level gauge with remote readout at the fill/pump out station(s) on the main deck.

The lube oil and hydraulic oil tanks shall have valved connections for filling portable receptacles, and valved lines for filling the tank. The tank fill lines and vents shall be contained in a fill station located on the main deck. The fill station shall be enclosed in a 21 gallon (minimum) spill containment device having a 1 inch drain line with a bronze cap and chain at the bottom. The enclosure shall have a hinged lid that prevents entry of rainwater, while allowing adequate ventilation of the enclosure when closed.

The Contractor shall provide and install a system similar to an AEROQUIP FLOCS system to facilitate lube oil changes for all equipment requiring lube oil.

C636 WASTE OIL SYSTEM

An independent tank shall be designed, fabricated and installed to collect waste oil from the diesel engines and the winch hydraulic power units for subsequent disposal to a shore reception facility. The tank shall be sized to collect the equivalent of one oil change of all users combined. The system shall have 1½ inch steel drain piping.

The Contactor shall supply and install a rotary gear pump to allow for the transfer of waste oil from the waste oil tank to an overboard discharge connection.

For subsequent disposal of the waste oil to a shore reception facility the system shall have a transfer pump to empty the waste oil tank through a tank pump out connection located on the main deck. The deck connection shall have a shut off valve with quick disconnect fitting; along with the waste oil tank vent it shall be enclosed by a spill containment device having a hinged lid that permits ventilation of the enclosure when closed.

C637 OILY BILGE SYSTEM

The oily bilge system shall be designed, fabricated and installed to collect and store grease/oil and water that may collect in the coamings around the engines, pumps and hydraulic units. The oily bilge tank shall have all of the features of the waste oil tank specified above, including the vent, inspection cover, level gauge, stripping connection, etc.

The pump-off connection for the oil shall have a spill containment device with a drain plug and hinged cover. The cover shall be designed to allow adequate ventilation of the enclosure when closed.

C640 ENGINE COOLING SYSTEM

A. GENERAL

The Contractor shall provide and install grid coolers, box coolers or channel bar coolers to handle a circulating mixture that shall be 50 percent water and 50 percent ethylene glycol by volume. Grid coolers, if used, shall be set up with the following features:

- The grid cooler recesses shall be configured in accordance with the cooler manufacturer's requirements. Sloped ends shall be provided in the recesses.

- The outboard faces of the grid coolers shall be recessed at least 3 inches inside of the surrounding hull surfaces.

- Bar type cooler guard grates, removable with minimum ½ inch diameter stainless steel bolts and nuts, shall be installed over all grid coolers.

- Auxiliary expansion tanks and/or larger jacket water pumps if required to handle the cooling system volume.

B. PIPING & VALVES

All piping shall be steel, non-galvanized with welded joints and fittings. The piping shall incorporate drains to allow for removing\adding coolant and to allow for working on the coolant system.

Bolted flanges shall be fitted to permit removal of pipe sections at the engine and cooler connections.

Flanged shut-off valves shall be furnished and installed at both the inlet and outlet connections to the external coolers.

Exposed piping shall be insulated for protection of personnel and nearby equipment.

C. VENTS

All cooling systems shall be vented at the main deck level to allow for removal or bleeding off of trapped air from the cooling systems. Vents shall be equipped with shut-off valves that may be locked in the closed position. The vents shall terminate at a height of 18 inches above the main deck.

All grid cooler recessed pockets shall be vented to allow entrapped air in the pockets to escape.

D. SYSTEM SIZING REQUIREMENTS

During the engineering phase, the Contractor shall perform engineering to size the engine cooling pumps and coolers based on the final selection of the diesel engines. The coolers shall be sized in accordance with the engine and gear manufacturers' recommendations. The coolers shall be sized to cool the full power output of the engines at a flow rate of 0 mph at a vessel forward speed of 0 knots and the water temperature of 85 degrees F.

C645 RAW WATER SYSTEM

The Contractor shall provide and install all the equipment and piping necessary to form a complete raw water system. The raw water system shall supply water for dredge pump gland flushing (see contract Clauses C518 and C519) and dredge pump priming. The system shall consist of a sea chest, centrifugal duplex strainer, associated valves and piping, and pumps and components provided as part of the dredge pump priming and gland flushing systems.

Suction lines to the pump shall be located below the light ship draft line at all points.

The system shall be of "freeze proof" design. The discharge header and other piping runs shall be located and arranged to facilitate draining.

C650 EXHAUST SYSTEM

A dry exhaust system shall be provided for each diesel engine. Each system shall have ASTM A106 steel piping and fittings and a spark-arresting silencer (with 35 db reduction minimum) enclosed in either a stack or an expanded metal cage. All piping and fittings exposed to the weather shall be stainless steel.

Stainless steel expansion joints shall be provided, and shall be located as close to the engine exhaust outlets as possible, and elsewhere as needed.

Exposed surfaces of the exhaust system inside the machinery space shall be sufficiently insulated to prevent outside surface temperature from exceeding 125 degrees F.

C655 HYDRAULIC SYSTEM

The hydraulic system shall be designed and equipped to operate on biodegradable synthetic fluid.

The Contractor shall provide a common steel reservoir serving the various hydraulic power units (HPU) The reservoir shall be complete with oil level and temperature gauges, bolted plate clean out, vented fill cap, drain, drip pan, and electric immersion heater sized for the ambient temperature conditions. The gauges on the reservoir shall conform to the requirements of ABS Rules. To prevent the possibility of accidentally emptying the entire contents of the reservoir in the event of a leak, a level switch shall be provided to shut down the hydraulic pumps when the oil level falls below a pre-designated limit.

The design, fabrication and installation of all hydraulic system components shall ensure an aligned, tight and dirt free installation. All piping, components and fittings shall be designed to withstand hydraulic shock.

Components and fittings shall be arranged and located to ensure convenient maintenance and repair. All maintenance components, e.g., filters, shall be readily accessible and removable without disconnecting the attached piping or dismounting the filter housing.

The breather opening into the reservoir shall have 10-micron filtration, as well as replaceable, cartridge-type desiccant air dryer to minimize condensation within the reservoir.

C660 BILGE SYSTEM

The Contractor shall provide a portable, electric motor powered bilge pump. The motor shall have the capability to be operated from a 120 volt AC, single phase receptacle.

C665 POTABLE WATER SYSTEM

The Contractor shall provide and install all components, piping, valves, and vents necessary to form a complete potable water system. The system installed shall comply with all applicable requirements and guidelines set forth by the U.S. Public Health Service.

The potable water system shall consist of a 1,000 gallon stainless steel tank, a pressure set, and all necessary piping and fittings for supplying water to a toilet, sink and eyewash station, and for filling the tank from the deck. The system shall be arranged and fittings supplied to enable the entire system to be gravity drained for cold weather lay-up.

The stainless steel potable water tank shall be complete with filling, pump suction with drainpipe connection, quick closing gate valves, 2-inch vent, and inspection/cleaning ports. The tank vent may be terminated below main deck as per the ABS Rules. The liquid level gauge shall be similar to a KENCO safeguard liquid level gauge, model 75.

In-line filtration shall be provided in the system for supplying water to the sinks and eye wash station. The filter system shall be a duplex type with disposable cellulose filter cartridges.

Piping material from the fill station to the potable water tank shall be stainless steel. The piping material from the potable water tank to the pressure set shall also be stainless steel. All potable water piping downstream of the pressure set shall be ASTM B-88, type K, seamless drawn copper tubing. All valves shall be bronze. The solder connections shall be lead free.

Pumps shall be stainless steel or bronze.

The potable water piping system design shall be “freeze proof”. All potable water-piping running through unheated compartments shall be insulated.

C667 SANITARY & SEWAGE SYSTEM

The Contractor shall provide and install all components necessary to form a total retention sanitary and sewage system for black water. The sanitary and sewage system shall consist of a 500 gallon sewage holding tank, a transfer pump, necessary piping, vents and fittings.

The gray water piping shall be configured to handle the drains from the sink and eye wash station, such that the gray water can be either discharged directly overboard or routed to the sewage holding tank by a three-way valve. The weather drains shall be led directly overboard.

Potable water will be used to flush the toilets.

The sewage holding tank shall be a 500 gallon, horizontal Nalgene tank having factory installed connections for pump suction, vent, inspection and washout. The vent shall have a flame screen. The washout connection shall be piped to the raw water system and shall have a globe valve, check valve and pressure gauge. The tank bottom plating shall be sloped towards the sump to facilitate total removal of the sewage and wash water.

The sewage holding tank shall be equipped with a level indicator having an audible alarm. The level indicator shall be set to alarm when the tank becomes about 80% full and again at 100% full. The level alarm must be adjustable and allow for resetting.

A centrifugal trash pump capable of passing 1-½ inch diameter solids shall provide pumpout of the sewage holding tank to a 2-½ inch, valved deck connection that has a quick coupling and cap. A spill containment device with a hinged cover shall protect the deck pump out station. The pump suction connection shall be provided at the bottom of the sewage tank sump.

The sanitary and sewage system shall be of "freeze proof" design. All "horizontal runs" of drain lines shall be sloped down at least ¼ inch per foot. The system shall also be installed with cleanouts and low point drains, arranged so that the entire system can be gravity drained for cold weather lay-up.

The piping material shall be schedule 80 seamless steel or PVC.

C669 DRAINAGE SYSTEM

Deck drains shall be located at each corner of the deckhouse to collect and drain water that accumulates behind the edge coaming.

C670 VENTS, SOUNDS & FILLS

All tanks shall be provided with vents, sounding tubes, and overflow pipes. Their size and height shall be in accordance with the applicable ABS rules.

C677 FIRE EXTINGUISHING SYSTEMS

A. FIXED FIRE EXTINGUISHING SYSTEM

The Contractor shall provide and install a carbon dioxide (CO2) fire extinguishing system to protect the machinery spaces where there are diesel engines. The system shall be designed and installed in accordance with the standards set forth by the USCG in 46 CFR, subchapter H, subpart 76.15 – Carbon Dioxide Extinguishing Systems, Details.

The CO2 cylinders shall be located in a separate space in accordance with the ABS Rules. Cylinders shall be mounted vertically, 2 inches off of the deck and in a rack attached either to the deck or the bulkhead. Provisions shall be made for the removal, installation and weighing of the cylinders.

Instructions and warnings shall be posted in accordance with USCG requirements.

B. PORTABLE FIRE EXTINGUISHERS & AXES

The Contractor shall provide and install portable fire extinguishers throughout the vessel. The classification and number of the extinguishers to be supplied and their mounting locations shall be in accordance with the ABS and USCG Rules.

All extinguishers shall be supplied with racks or holders for mounting.

Two fire axes shall be provided and installed on the vessel. The axes shall be mounted in brackets at the main deck level on the exterior deckhouse bulkhead.

C678 FIRE DETECTION & ALARM SYSTEM

The Contractor shall provide and install all components, necessary to form a complete electrical fire detection and alarm system. The electrical fire detection and alarm system provided shall meet all applicable USCG, ABS, and NFPA Rules, with all equipment being UL listed. The system shall be installed to monitor the dredge control room and the machinery space.

The system shall be provided with its own dedicated DC power source consisting of a battery charger and battery sized for 72 hours of power.

The system shall include electric smoke detectors and heat sensors wired to a detection cabinet located in the dredge control room. The detection system shall be designed to sound alarm(s) throughout the vessel when a fire has been detected and shall automatically shutdown the ventilation blowers.

A red rotating light shall be installed on the deckhouse top in order to give a visual signal of the activation of the fire detection system.

B. FIRE CONTROL PLAN

The Contractor shall produce a Fire Control Plan in accordance with the ABS River Rules (Part 4, Section 7, paragraph 7.25.10).

The Fire Control Plan shall be submitted for review and approval by the COR during the construction phase. After approval, a framed copy shall be produced and mounted in the dredge control room.

C685 HEATING, VENTILATION AND AIR CONDITIONING

A. GENERAL

The vessel shall have heating, air conditioning and ventilation. Heating shall be provided in the dredge control room, machinery space and rest room. Air conditioning shall be provided in the dredge control room. Mechanical ventilation shall be provided in the rest room and machinery space.

B. HEATING

The Contractor shall perform heating load calculations to determine the size of the heaters to be installed on the vessel. The heating calculations, as well as the cutsheets of the equipment selected shall be submitted for review and approval by the COR prior to the purchase of any equipment by the Contractor.

The heaters shall be sized to heat the dredge control room to 70 degrees F, the machinery space to 50 degrees F, and the rest room to 65 degrees F when the outside temperature is –12 degrees F.

C. AIR CONDITIONING

An air conditioner shall be provided in the dredge control room, mounted in the ceiling to cool the space to 75 degrees F when the outside temperature is 90 degrees F. The Contractor shall perform a heat gain analysis to determine the size air conditioner required.

D. VENTILATION

The machinery space shall be ventilated to provide a minimum of 2 air changes per minute. The rest room shall be ventilated by a 100 cfm exhaust fan.

The Contractor shall install low voltage releases on motor controllers as necessary to re-start the machinery space ventilation fans after the main electrical power is lost/shut down.

C690 COMPRESSED AIR SYSTEM

A 5 hp reciprocating air compressor and receiver shall be provided and installed for operating small air tools and for sea chest blowdown. The Contractor shall also furnish and install two air stations having a combination regulator-pressure gauge-lubricator. If the air compressor is to be used for pneumatic controls, it shall be furnished with a refrigerant dryer.

C692 ALARMS, CONTROL & MONITORING

A General Alarm System shall be provided and installed in accordance with USCG regulations.

An indicator light panel board shall be provided and installed in the dredge control room to indicate the operational status of the equipment located in the machinery space, i.e. “Running/Stopped” (Green/Red).

All necessary instrumentation and controls shall be incorporated in order to monitor and regulate the various onboard systems for safe operation and performance.

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C700 ELECTRICAL

C701 GENERAL REQUIREMENTS FOR ELECTRICAL SYSTEMS

The design, construction and installation of all system components shall be suitable in all respects for marine service and the intended application. All system components shall be furnished new and unused.

The design ambient temperature for all electrical equipment in machinery spaces shall be 50 degrees C and all current carrying conductors shall be copper. The design ambient temperature for motors is defined in contract Clause C750.

Equipment shall be located and oriented as conveniently as practicable for operation and maintenance. All equipment shall be accessible for removal, servicing and adjustment without dismounting or removal of other equipment.

Unless otherwise specified, all machinery, equipment, materials and installation shall be in accordance with all applicable rules, regulations and recommendations contained in the current issue of the publications listed in Clause C003, including any revisions that have been published in the Federal Register prior to the date of this contract.

All the equipment furnished shall bear the approval of the Underwriters Laboratories, where applicable. Contract references to specific sections of codes, rules and standards in these specifications are intended to emphasize specific salient items. All equipment and design shall be furnished in compliance with all applicable sections of the codes, rules, and standards cited in Clause C003 and Clause C004.

C702 ELECTRICAL EQUIPMENT & CABLING MARKING

A. DESIGNATION SYSTEM

All designation of circuits, panelboards, nameplates, etc shall be in accordance with Annex B of IEEE Standard 45 – 1998 edition.

B. EQUIPMENT MARKING REQUIREMENTS

All electrical equipment shall be provided with standard label plates indicating manufacturer, model number, and electrical characteristics (operating voltage, phase, amperage, etc.). The nameplates, serial number plates, identification tags, etc. that are installed on the equipment shall remain in place on the equipment as furnished by suppliers. The Contractor shall use caution during construction to not damage or paint over nameplates or tags. Damaged nameplates or tags shall be replaced prior to Final Acceptance.

The Contractor shall install identification labels for all equipment. All nameplates and notices shall be stamped or engraved on brass or plastic plates. All weather exposed nameplates, notices, and markings shall be of brass.

All distribution panels shall be labeled with designation plates. All breakers in the distribution panels shall be numbered and the panel identification cards filled out to identify the breaker's service. See USCG, 46 CFR, subchapter J, paragraph 111.40-11.

All other controls, gauges, switches, etc., shall be labeled with phenolic label plates to permit operation of the vessel. This includes dredge control room equipment as well.

C. CABLE MARKING

All interconnecting cables and wiring shall be marked at each termination and at each watertight bulkhead or deck with circuit or system identification. Power distribution wiring shall be marked to indicate phase and polarity. All cables shall be suitably identified throughout their length with cable tags identifying the circuit designation.

The tags are to be fabricated from strip aluminum or bronze with raised lettering and shall be securely fastened to the cable by banding.

Cable identification shall be in accordance with the electrical cable schedule developed per contract Clause C725.

D. IDENTIFICATION OF MOTOR CONTROLLERS

Each motor controller and motor control center shall be marked in accordance with USCG, 46 CFR, subchapter J, paragraph 111.70-3(d).

E. SHORE POWER IDENTIFICATION

The Contractor shall install an identification plate for the shore power receptacle in accordance with the ABS River Rules (Part 4, Section 4, paragraph 4/4A4.7.5).

C705 AC ELECTRICAL SYSTEMS

A. PRIMARY POWER SYSTEM

The primary power system supplied for the dredge shall be rated as a 480 volt AC, 3-phase, 3-wire, 60 Hz, ungrounded system. Power to this system shall be supplied by the generator set or through shore power.

B. SECONDARY POWER SYSTEM

The secondary power system supplied for the dredge shall be rated as a 208Y/120 volt AC, 3 phase, 4-wire, 60 Hz, grounded system. Power to this system shall be supplied from the main switchboard through a transformer.

C706 DC ELECTRICAL SYSTEMS

A. DESCRIPTION OF WORK

The Contractor shall supply and install a 12 volt DC electrical system for the communication equipment, and emergency lighting. The system components shall be sized based on the DC Load Analysis calculated per contract Clause C710 and a One Line Diagram (DC) shall be prepared for the system in accordance with contract Clause C720.

The DC system power supply, battery charger, battery, and distribution panel shall be located in the machinery space.

Equipment supplied that requires 24-volt DC power for operation shall be either:

- Connected to the 12 volt DC system via a 24 volt DC to 12 volt DC converter
- Or installed with its own dedicated power supply

For reference, systems requiring DC power that are not part of the DC systems are the Fire Detection & Alarm System (contract Clause C678), the General Alarm System (contract Clause C692), and the starting battery system(s) supplied for the diesel generator set(s).

C. DC SYSTEM PANELBOARD

A DC distribution panel shall be provided and installed. The DC panel shall include, but not be limited to the following basic components and features:

- Power available light with dimmer switch
- Line voltage meter
- Load current meter
- Main circuit breaker

D. BATTERIES & BATTERY CHARGERS

1. Battery Requirements

All batteries provided shall be suitable for marine use and shall be rated for a minimum of 200 ampere-hours.

The Contractor shall provide and install 12 volt DC batteries for the 12 volt DC system and for the General Alarm System. The size of the 12 volt DC system battery shall be based on the Load Analysis performed per contract Clause C710. The General Alarm System battery shall be sized in accordance with contract Clause C692.

For the starting of the vessel's diesel generator set(s), the Contractor shall supply and install a 24 volt DC battery bank. Charging of the 24 volt DC starting battery bank shall also be accomplished by its respective 24 volt DC engine alternator attached to a generator set diesel engine. See Clause C735.

Each battery or set of batteries shall be placed in vented, high-density polyethylene boxes with lockable, hinged covers.

2. Battery Chargers

For the 12 volt DC system and the General Alarm System, the Contractor shall supply and install a battery charger for each system similar to a La Marche, model A41 series. Each charger supplied shall be USCG listed for marine service and built to carry continuous loads. The battery chargers for the 12 volt DC system and the General Alarm System shall be sized to meet the power requirements for that respective system's batteries.

For the 24 volt DC starting system, the Contractor shall supply and install a battery charger similar to a La Marche model ESC battery charger. The battery charger for the 24 volt DC starting system shall be sized to meet the power requirements for the generator set diesel engine starting batteries.

The input voltage for all chargers shall be 120 volt AC, 60 Hz and all chargers shall be supplied with ammeters. The battery chargers shall be suitable for operation in 50 degrees C.

3. Overload & Reverse Current Protection

Overload and reverse current protection for the battery conductors shall be in accordance with USCG, 46 CFR, subchapter J, paragraph 111.15-25.

C710 LOAD ANALYSIS

A. AC LOAD ANALYSIS

The Contractor shall develop a complete load analysis for the 480/208Y/120 volt AC electrical system, based on the actual equipment selected for installation. Each load analysis should be set up for the following modes:

- Summer - Day
- Winter - Night

B. DC LOAD ANALYSIS

The Contractor shall develop a complete load analysis for the 24 volt DC and 12 volt DC systems based on the actual equipment selected for installation. Each load analysis should be set up for the following modes:

- Summer - Day
- Winter - Night
- Emergency Condition

C715 FAULT CURRENT & CIRCUIT BREAKER COORDINATION

The Contractor shall prepare a complete detailed fault current analysis and circuit breaker coordination study.

The fault current analysis shall demonstrate that all protective devices such as fuses and circuit breakers have sufficient short circuit breaking and making capacities. A listing of all protective devices, their locations, use, manufacturer, model, and interrupting rating shall be submitted with the fault current analysis.

The circuit breaker coordination study shall demonstrate that only the circuit breaker closest to the fault will open under short circuit conditions.

Copies of time-current characteristics for all breakers involved in the coordination study shall be submitted with the study.

C720 ONE LINE DIAGRAMS

The Contractor shall develop complete AC and DC one line diagrams based on the final equipment selections.

Catalog cutsheets shall be provided for all AC system and DC system components with the submission of the respective system's one line diagram.

C725 CABLING REQUIREMENTS

A. VOLTAGE DROP & CABLE SCHEDULE

The Contractor shall prepare separate cable schedules for all circuits in the AC electrical system and for all circuits in the DC electrical system.

A voltage drop calculation shall be included on each cable schedule for each circuit. For each AC circuit, a 5% maximum voltage drop is allowed from the switchboard to the connected load. For each DC circuit analysis, a 5% maximum voltage drop is allowed from the DC power source to the connected load.

The cable schedules and voltage drop analyses shall be submitted to the COR for review prior to the construction phase.

B. CABLE REQUIREMENTS

Cables shall be similar to L.F. GAUBERT, Specification #474, TNIB Series, 90°C rated, armored, USCG & ABS approved.

The Contractor shall select the size of the cables based on the voltage drop analysis and the current distribution requirements from the one-line diagrams. All cables for receptacle circuits shall be 12 AWG or larger.

All wiring shall be clipped and bracketed to provide straight, vertical and horizontal runs throughout the vessel. Care shall be taken to run all power cables separate from all control signal cables in order to avoid field interference.

All cable installations shall be supported on galvanized steel brackets, and shall comply with all applicable provisions of IEEE-45 Clause 10. Cable supports shall be heavy enough to bear the weight of cables without bending, and all supports shall have rough or sharp edges removed so that cable armor will not be damaged. Horizontal runs of cable shall be supported by brackets spaced every 2 feet. Vertical runs of cables shall be supported every 2 feet with individual cable straps and bar hangers or brackets.

Soldering shall be performed only with resin or other neutral flux. Ends of all wires not tinned by the cable manufacturer shall be tinned before securing to terminals or before applying lugs. Solderless lugs shall be used wherever practicable. Terminals or lugs that are to be soldered to cable ends shall first be cleaned and tinned or treated with a neutral flux to ensure a good bond.

Connections to equipment and terminal boards shall be made with compression type connectors.

Ring tongue compression terminals shall be used for all control terminations. Ends of all cables shall be sealed against moisture by taping in combination with insulating compounds or other approved methods.

Cable penetrations throughout non-watertight bulkheads and decks shall have ample bearing surfaces. Cable penetrations through watertight decks or bulkheads shall use multi-cable transits similar to the ROX System or brass or steel stuffing tubes. Multi-cable transits shall be installed with spares to allow for the addition of cables. Enclosure penetrations shall use brass stuffing tubes.

All cables shall be identified in accordance with contract Clause C702.

C730 LIGHTING & RECEPTACLES

A. GENERAL REQUIREMENTS

The Contractor shall provide and install complete lighting systems in order to adequately light the vessel. The lighting systems shall consist of:

- Interior Lighting
- Exterior Lighting
- Emergency Lighting
- Floodlights
- Searchlights
- Flanking Lights
- Navigation Lights
- Instrument Lighting

The Contractor shall provide and install convenience receptacles throughout the vessel interior and exterior.

B. INTERIOR & EXTERIOR LIGHTING

All fixtures shall be marine type and made of corrosion resistant materials and shall be spaced evenly to provide proper distribution of light. Fixture installation shall be such that the low point of all fixtures is above the lowest structural members.

All lighting switches shall be marine type, watertight where required by location, and shall be mounted for convenient operation.

The lighting level (measured in foot-candles), shall be in accordance with the guidelines established in the IES Lighting Handbook for Marine Lighting.

1. Interior Lighting

Interior lighting fixtures shall be fluorescent, ceiling mounted or surface mounted fixtures, controlled by a switch at each entrance to the compartment. Fluorescent type lamps shall be rapid start and cool white.

The dredge control room shall also be equipped with a 12 volt DC, twin tube, 8-watt light with red for night vision underway and white for normal use. The light shall be similar to a Guest model #836C-3-2R fixture.

Fluorescent lights installed over the mirror in the restroom shall be on GFCI protected circuits.

2. Exterior Lighting

Exterior deck lighting shall be provided and installed in order to provide sufficient lighting and to maintain an illumination level on the decks for safe operation at night. The exterior lighting shall be energized from the 120 volt AC system.

Watertight, bulkhead mounted incandescent type fixtures shall be installed along the sides and ends of the deckhouse. The lights furnished shall be similar to Pauluhn, model 707B.

3. Emergency Lighting

The vessel shall be provided with a separate, emergency 12 volt DC lighting system for interior and exterior lighting. The purpose of the system to be installed is to provide lighting for egress to/from the vessels. The emergency lighting is configured to allow for automatic operation upon failure of the AC lighting system or for manual (all-the-time) operation.

For the interior spaces, 12-volt DC twin tube fluorescent fixtures, similar to a Guest model #836C-3 shall be provided and installed. For the exterior and machinery spaces, watertight, 12-volt DC incandescent fixtures shall be installed.

C. FLOODLIGHTS

Six, marine rated, 500W quartz\halogen lamp floodlights shall be provided on the vessel. Four shall be mounted on the deckhouse top and two on the A-frame.

D. SEARCHLIGHT

The Contractor shall provide and install one 1 kW, Xenon searchlights, similar to Carlisle & Finch, set up for 460 volt AC, three phase service.

E. NAVIGATION LIGHTS

The dredge shall be furnished with a complete system of navigation lights in accordance with the USCG Navigation Rules, International and Inland. The vessel will operate on the Upper Mississippi River System and its tributaries. (Note; the navigation lighting system shall include USCG lights required for a "vessel not under command" and a "vessel restricted in her ability to maneuver.")

The navigation lighting system shall be set up for 120 volt AC. All navigation lights provided shall be similar to figures 1164 to 1168 series, manufactured by PERKO.

A supervised, solid-state, navigation light panel shall be supplied similar to those manufactured by J-Box, Marrero, LA (www.jboxinc.com) and installed in the control room. The navigation light panel supplied shall include "tell-tale" panel alarms to indicate the failure of the lights primary bulb and indicate that the secondary bulb is in operation. The panel shall incorporate circuits for all navigation lights and as well as a panel dimmer switch.

F. INSTRUMENT LIGHTING

All instrument lights and gauges on the console in the dredge control room shall be provided with lights. The lights shall have dimmer switches.

G. CONVENIENCE RECEPTACLES

All interior convenience receptacles shall be rated for 2 pole, 3 wire, 15 or 20 amp, 125 volt AC service.

All exterior receptacles shall be waterproof, rated for 2 pole, 3 wire, 20 amp, 125 volt AC service. The exterior receptacles shall be on circuits protected by GFCI circuit breakers.

C733 ELECTRICAL POWER PLANT

A. DIESEL GENERATOR SET REQUIREMENTS

The diesel generator set(s) shall be a 4 stroke-cycle marine type, meeting ABS requirements. The diesel generator(s) shall have a continuous rating at 0.8 power factor at 60 Hz and 1800 rpm. The generator(s) shall be set up to supply 480 volt AC, 3-phase, 3-wire, ungrounded, 60 Hz electrical power.

Each generator supplied shall be equipped with an amortisseur winding and shall be capable of delivering 110 percent load for two hours without exceeding permissible limits of temperature rise. Each generator, along with its regulation and excitation systems shall be capable of supporting overload conditions as well as maintaining short circuit currents of such magnitude and duration as required to properly actuate selective tripping of downstream protective devices.

Each voltage regulator supplied shall be a solid-state volts-per-hertz voltage regulator and shall be capable of automatically maintaining constant rated generator voltage throughout the load range of the generator(s). Each voltage regulator supplied shall be capable of maintaining steady state regulation within 1 percent of rated voltage from no load condition to 110 percent rated load condition and shall include a voltage adjusting rheostat with a plus and minus 10 percent adjustment range.

The voltage dip on the generator(s) shall not exceed 25 percent while starting the largest motor on the vessel across-the-line with the main bus load at 30 percent capacity.

Each diesel engine and generator shall be provided with the following features and options:

- Approved by ABS.
- Voltage droop on each generator that is adjustable for parallel operation.
- The generator shall have a drip proof, guarded enclosure, and shall be air cooled and self-ventilated.
- A brushless excitation system and an automatic solid-state voltage regulator.
- An engine mounted fuel pump with a minimum lift of 10 feet.
- Set up for battery start.
- Dedicated DC control system including battery and charger for controls and automatic shutdowns.
- Electronic governor.
- Emergency stop pushbutton.
- Turbocharged-aftercooled.
- Configured as a closed jacket water cooling system using grid coolers, box coolers or channel bar coolers. Coolant level sensors and gauges to be provided.
- Auxiliary expansion tanks and/or larger jacket water pumps if required to handle the cooling system volume.
- A jacketed manifold and dry exhaust system. Exhaust emissions that comply with MARPOL 73/78 Annex VI.
- Each engine turbocharger and exhaust manifold shall be insulated or jacketed to maintain an outer skin temperature of less than 125 degrees F.
- Each generator supplied with an electric heater.
- The water, lube and fuel lines to all engine connections shall be fitted with USCG and ABS approved flexible connections.

- Each diesel engine oil sump shall be fitted with a ball valve and quick disconnect fitting so that oil can be added to or drawn from the sumps.

- A steel base frame with drip pan under the engine.

- Mounted on vibration mounts in order to isolate engine vibration. See contract Clause C180 for noise and vibration requirements.

- Each engine shall be supplied with lifting eyes and mounting support. The Contractor is responsible for supplying suitable foundations for each engine and generator.

- Switchgear controls and instrumentation shall be provided and installed as outlined in contract Clause C740.

- Load bank testing of the diesel engine and generator shall be in accordance with Section E of the contract.

- Four sets of manuals shall be supplied for the diesel engines and generator sets. See contract Clause H16.

The diesel generator set(s) and all associated equipment shall be installed in strict compliance with the engine manufacturer's recommendations and the installation shall be approved by the manufacturer's field representative.

B. GENERATOR SET STARTING/STOPPING

The generator set(s) shall be set up for starting and stopping locally, at the generator set(s) in the machinery space.

The diesel engine(s) shall be set up for electric start. The electric starting system shall be 24 volt DC and include starter motor, batteries, battery charging alternator, ammeter, and regulator. See Clause C706.

The starting batteries shall be marine, heavy duty, rated in accordance with the engine manufacturer's recommendations. The Contractor shall provide and install a battery box with cover for the diesel engine starting batteries. The battery boxes shall be located in the machinery space.

C. GENERATOR SET ALARMS & INSTRUMENTATION

The diesel generator set(s) shall be set up to automatically shutdown upon activation of the following alarms:

- Engine overspeed
- Low lube oil pressure
- High jacket water temperature

Alarms shall be provided for the generator set(s). The alarm panels shall be located in the machinery space and in the dredge control room. The panels shall be set up such that silencing an alarm at one panel automatically silences the alarm at a second panel.

The alarms shall have both audible and visual signals at both the machinery space panel and the dredge control room panel. The alarms shall be provided with fault light lock-in circuitry, lockout of additional alarm lights after engine shutoff, alarm silence buttons, and circuit test button.

The following alarms shall be included for each generator set at both the machinery space panel and the dredge control room panel:

- Engine overspeed
- Low lube oil pressure
- High jacket water temperature
- Low starting battery voltage

The diesel generator manufacturer shall provide a local control panel, with mechanical gauges, installed at the generator set(s). The panel(s) shall have, as a minimum, the following instrumentation:

- Engine hour or service meter
- Jacket water temperature gauge (degrees F)
- Lube oil pressure gauge (psi)
- Fuel pressure gauge (psi)
- Tachometer
- Watt meter
- Volt meter
- Amp meter

C740 SWITCHBOARD & POWER CONTROL

A. OVERVIEW

A switchboard shall be provided and installed for the electrical systems. Front layouts, catalog cutsheets of major components, and diagrams of the switchboard shall be submitted for review by the COR prior to the purchase of any equipment by the Contractor.

The switchboard shall be designed, constructed, and installed in accordance with ABS rules.

The switchboard shall be configured to prevent paralleling between the shore power and the generator set(s).

B. SWITCHBOARD REQUIREMENTS

1. General Requirements

The switchboard shall be front and rear accessible. The switchboard shall also be fully serviceable from both the front and rear. It shall be freestanding and adequately supported to resist vibration. The switchboard shall be set up to provide for top and bottom cable entry.

Space heaters for the switchboard sections shall be provided to prevent condensation within the enclosure during idle periods. The space heaters shall be energized from the ship's service 208Y/120 volt AC system.

2. Generator Set Switchboard Sections (Parallel Operation)

The switchboard shall include sections for monitoring and control of each generator set. If generator paralleling is employed, a synchronizing section shall be included. For each generator set, the associated switchboard section shall include the following components and features:

- Automatic synchronizer.
- "AUTO-MANUAL" synchronizer selector switch.
- Generator power available indicating light.
- Voltage regulator control rheostat.
- Speed control rheostat.
- Voltmeter and selector switch.
- Ammeter and selector switch.
- Frequency meter.
- Wattmeter.
- Multifunctional Amp transducer.
- Multifunctional Volt transducer.
- Multifunctional Watt transducer.
- Frequency transduecr.
- Manual "ON-OFF" switch with indicating light for the switchboard space heater.
- "ON-OFF-AUTO" switch with indicating light for the associated generator space heater. When in the "AUTO" position, the space heater shall be energized whenever the associated generator breaker is open.

For paralleling operations, the synchronizing section of the switchboard shall include the following components:

- Synchroscope.
- Selector switch to select the incoming generator.
- Generator breaker "CLOSE" pushbutton for each generator.
- Speed control rheostat for each generator.
- One voltmeter for each generator.
- One frequency meter for each generator.

An automatic synchronizer shall be provided for each generator that will automatically synchronize the incoming generator, as selected by the generator selector switch, with the 480 volt AC bus and close the generator breaker when the two power sources are synchronized. Automatic synchronization, breaker closing and load balancing, shall occur:

- When the breaker close pushbutton is pressed and the synchronizer selector switch is in the "LOCAL AUTO" position.

- When the synchronizer selector switch is in the "REMOTE AUTO" position.

When in the "MANUAL" position, pushing the close pushbutton will by-pass the automatic synchronizer and close the breaker of the selected generator.

Each generator breaker shall be provided with reverse power protection that will trip the generator under reverse power conditions. The setting shall be between 8% and 15% of the main generator rating. Each generator breaker shall also be interlocked such that the generator breaker cannot be closed unless its associated generator is generating power. Each generator breaker shall also open if its associated generator voltage collapses.

3. Shore Power Operation – Switchboard Section

The switchboard shall include a section for monitoring the incoming shore power. The shore power section of the switchboard shall include the following components and features:

- Shore power available indicating light.
- Voltmeter.
- Ammeter.
- Frequency meter.
- Phase sequence/loss system.

The phase sequence/loss system for the shore power connection consists of:

- A phase sensing relay with correct phase light (green), neutral position, and incorrect phase (red).

- Shore power reversed phase indicating light.

- Three-position shore power phase reversal switch with "normal" and "reversed" settings separated by an "OFF" switch position.

To prevent paralleling between the shore power and the generator set(s), electrical and mechanical (safe/run device for the shore power service) interlocking shall be provided. The main bus shall only be energized at any given time by the generator set(s) or the shore power.

4. Isolation Ground Bus & Ground Detection

The switchboard shall also incorporate an isolation ground bus. Connections shall be made from AC system distribution panels back to the isolation ground bus in the switchboard. Grounding shall then be made to one of diesel generator engine(s).

For ground detection, the switchboard shall also include:

- Ground detection lights and test switch for the 480 volt AC system.
- Ground detection ammeter and test switch for the 208Y/120 volt AC system.

5. Switchboard Breakers

a. General Circuit Breaker Requirements

The interrupting rating of each circuit breaker shall be suitable for the maximum short circuit current available at the point of application as determined by short circuit analysis. The circuit breakers provided shall have a minimum interrupting rating of 10,000A RMS symmetrical at their respective voltage level, and shall be capable of interrupting without damage, the maximum fault current at the breaker from the system.

Circuit breaker coordination and selectivity shall be provided so that, for a fault on any part of the system, the protective device that is closest to the point of fault without tripping upstream breakers (in accordance with USCG, 46 CFR, subchapter J, subpart 111.51) clears the fault.

b. Generator Set(s) & Shore Power Sections

The generator breaker(s) shall be provided with adjustable time delay under voltage trip devices. The generator and shore power breakers shall be provided with trip characteristics to provide maximum selective coordination with downstream circuit breakers and motor operations.

The switchboard shall contain molded case, electronic trip device circuit breakers for the generator(s), and for the shore power service.

The main section of the switchboard shall contain, as a minimum, the breakers for the generator set(s), the shore power, the transformer feed, the feeds to the 480 volt AC distribution section. There also should be two spare breakers in this section.

c. 480 Volt Distribution Section

Molded case, draw-out type, circuit breakers shall be provided for all of the equipment required for control of the 480 volt, three-phase, 60 Hz equipment, and for the 480 volt AC distribution system.

The 480 volt distribution bus circuit breakers shall be manually operated and provided with inverse time, ambient-temperature-compensated, thermal magnetic trips and shall have interchangeable thermal trip units and adjustable magnetic trips in ratings where available.

At least four spare breakers shall be provided. The spare breakers shall have trip ratings representative of the trip ratings furnished for other loads connected to the main switchboard.

Any remaining "spaces" for circuit breakers shall be fitted with plug-in assemblies of appropriate frame size and blank cover plates.

Single phase loads shall be distributed as evenly as possible among the three phases of the three-phase, 4-wire system, to achieve optimum phase current balance.

C745 DISTRIBUTION PANEL BOARDS

A. DESCRIPTION OF WORK

Power and lighting panel boards shall be used to supplement the distribution section of the switchboard for all of the electrical loads on the vessel. Panel boards shall be located so that they are readily accessible.

The panel boards shall be dead front circuit breaker type equipped with molded case circuit breakers. All panel boards shall be fitted with isolation ground bars.

All panel boards shall be equipped with main circuit breakers for the feed into the panel board.

All panel boards and breakers shall be marked in accordance with contract Clause C702.

B. AC SYSTEM CIRCUIT BREAKERS

The distribution panel boards shall be connected to feeder circuit breakers in the 480-volt main switchboard as well as to the 480-volt to 208Y/120 volt transformer feed.

As far as practicable, load distribution should be such that the distribution panel boards shall feed electrical loads that are located in their respective areas.

Single phase loads shall be distributed as evenly as possible among the three phases of the three phase, 4-wire system, to achieve optimum phase current balance.

The panel boards shall be equipped with molded case circuit breakers with ratings and the number of poles to satisfy system requirements. Stab (plug in) type circuit breakers shall be used.

The circuit breakers in all the panel boards shall have quick make, quick break, trip-free mechanisms. The interrupting rating of each circuit breaker shall be suitable for the maximum short circuit current available at the point of application as determined by short circuit analysis. The circuit breakers provided shall have a minimum interrupting rating of 10,000 RMS symmetrical amperes at their respective voltage levels, and shall be capable of interrupting without damage to the fault current available at the breaker from the system.

In addition, each of the distribution panel boards shall be provided with a minimum of four spare breakers, with trip ratings representative of trip ratings furnished for other loads.

Circuit breakers for the motor controllers shall be in accordance with contract Clause C750. Breakers for the transformer shall be in accordance with contract Clause C755.

C. DC SYSTEM CIRCUIT BREAKERS

The DC system distribution panel boards and circuit breakers shall be in accordance with contract Clause C706.

C750 MOTORS AND CONTROLLERS

A. MOTORS

All motors shall be drip-proof protected, except those exposed to the weather, which shall be waterproof construction. All motors shall be NEMA type, and shall be sized and designed for continuous operation of the driven auxiliary at rated capacity.

All motors shall be designed for an ambient temperature of 50 degrees C.

All motors shall be equipped with anti-friction bearings. All motors using grease lubricated bearings shall be provided with grease fittings and shall have positive means for preventing grease from being forced out upon the motor windings.

B. CONTROLLERS

All controllers shall have manually reset thermal overload protection, line disconnect device, and integral start/stop push-button set. Controllers arranged for automatic or remote operation shall also be provided with Hand-Auto or Local-Remote selector switch. Exterior mounted controllers shall be mounted in watertight enclosures.

Controllers for the small HP motors shall be full-voltage magnetically operated types. In cases where starting motors across the line can produce 25% voltage dip on the system with the bus at 30% capacity, reduced voltage starters shall be used.

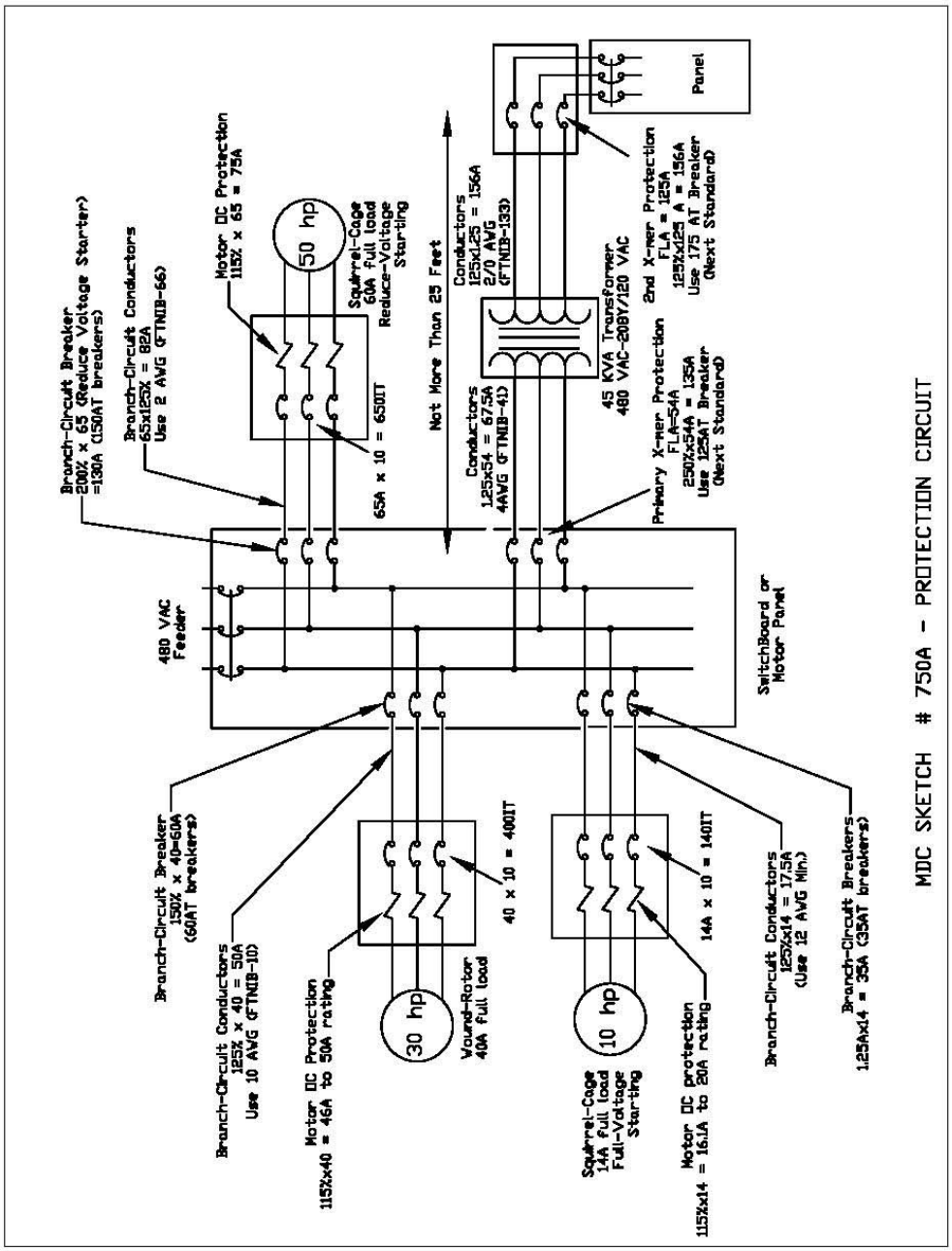
C. MOTOR CONTROLLER – BREAKER COORDINATION CIRCUITS

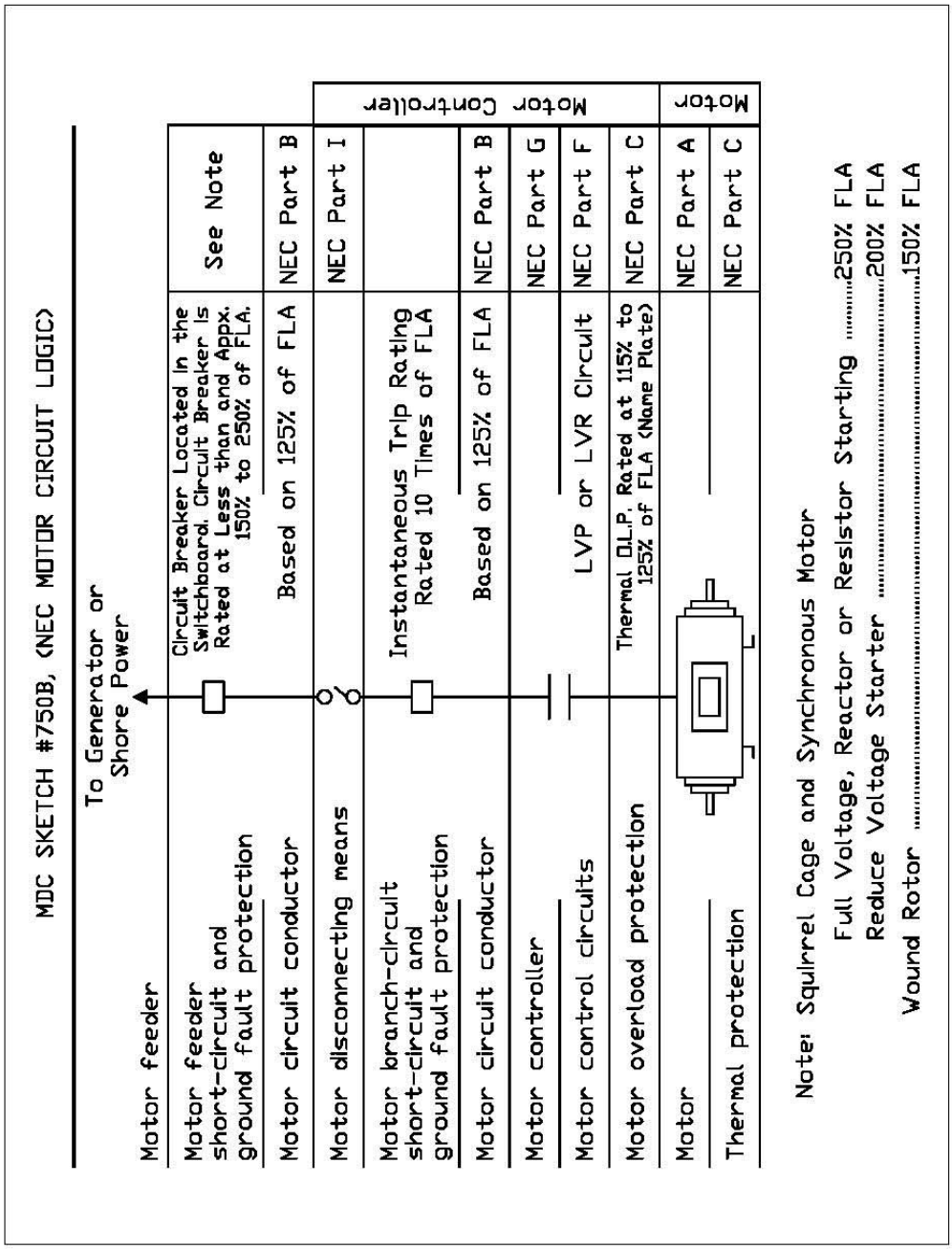
Switchboard breakers and panel board breakers for motors and motor controllers shall sized and installed in accordance with the following:

- Motor feeder circuit breakers installed in a switchboard section or motor panel shall be rated near to and not more than 250% of the motor FLA.
- The motor control circuits shall be in accordance with MDC Sketch #750A.
- All motor controllers shall have short circuit and ground fault protection by circuit breaker rated at AT = 125% FLA and IT =10 x FLA of the motor.
- See MDC Sketch #750B for the motor circuit logic.

D. MOTOR UNDER-VOLTAGE PROTECTION

Except for motors less than 2 hp, all motor controllers shall be provided protection against an under-voltage condition. Protection against under-voltage shall be either low-voltage protection (LVP) or low-voltage release (LVR).


Branch-Circuit Breaker
200% x 65 (Reduce Voltage Starter)
=130A (150AT breakers)
Branch-Circuit Conductors
65x125% = 82A
Use 2 AWG (FTNIB-66)
Motor OC Protection
115% x 65 = 75A
50 hp
Squirrel-Cage
60A full load
Reduce-Voltage
Starting
65A x 10 = 650IT
Not More Than 25 Feet
Conductors
125x54 = 67.5A
4AWG (FTNIB-41)
Conductors
125x1.25 = 156A
2/0 AWG
(FTNIB-133)
45 KVA Transformer
480 VAC-208Y/120 VAC
Primary X-mer Protection
FLA=54A
250%x54A = 135A
Use 125AT Breaker
(Next Standard)
2nd X-mer Protection
FLA = 125A
125%x125 A = 156A
Use 175 AT Breaker
(Next Standard)
Panel
480 VAC
Feeder
SwitchBoard or
Motor Panel
Branch-Circuit Breaker
150% x 40=60A
(60AT breakers)
Branch-Circuit Conductors
125% x 40 = 50A
Use 10 AWG (FTNIB-10)
Motor OC Protection
115%x40 = 46A to 50A rating
30 hp
Wound-Rotor
40A full load
40 x 10 = 400IT
Squirrel-Cage
14A full load
Full-Voltage
Starting
10 hp
Motor OC protection
115%x14 = 16.1A to 20A rating
14A x 10 = 140IT
Branch-Circuit Conductors
125%x14 = 17.5A
(Use 12 AWG Min.)
Branch-Circuit Breakers
1.25Ax14 = 35A (35AT breakers)
MDC SKETCH # 750A - PROTECTION CIRCUIT


MDC SKETCH #750B, (NEC MOTOR CIRCUIT LOGIC)
To Generator or Shore Power
Motor feeder
Motor feeder short-circuit and ground fault protection
Circuit Breaker Located in the Switchboard. Circuit Breaker Is Rated at Less than and Appx. 150% to 250% of FLA.
See Note
Motor circuit conductor
Based on 125% of FLA
NEC Part B
Motor disconnecting means
NEC Part I
Motor branch-circuit short-circuit and ground fault protection
Instantaneous Trip Rating Rated 10 Times of FLA
Motor circuit conductor
Based on 125% of FLA
NEC Part B
Motor controller
NEC Part G
Motor control circuits
LVP or LVR Circuit
NEC Part F
Motor overload protection
Thermal O.L.P. Rated at 115% to 125% of FLA (Name Plate)
NEC Part C
Motor
NEC Part A
Thermal protection
NEC Part C
Motor Controller
Motor
Note: Squirrel Cage and Synchronous Motor
Full Voltage, Reactor or Resistor Starting .....250% FLA
Reduce Voltage Starter .....200% FLA
Wound Rotor .....150% FLA

C755 TRANSFORMERS

A. TRANSFORMER SIZING REQUIREMENTS

The Contractor shall provide and install one transformer to connect the 480 volt AC, three phase, 3-wire, 60 Hz system to the 208Y/120 volt AC, three phase, 4 wire, 60 Hz system.

The transformer shall be sized based on the results of the AC Load Analysis and the development of the AC One-Line Diagram. See contract Clauses C710 and C720.

B. GENERAL REQUIREMENTS

The transformer shall be three phase, 60 Hz, marine dry type, convection air cooled and shall be adequately sized to satisfy system requirements.

The secondary system shall be bonded at the transformer.

The Contractor is responsible for providing a foundation beneath the transformer.

C. INSULATION

The transformer shall have class H insulation and copper conductors. The design ambient temperature shall be a minimum of 50 degrees C. The transformer shall be designed to deliver rated KVA continuously without the benefit of internal fans to circulate air. All insulating materials shall be in accordance with NEMA standards.

Provisions shall be made to completely isolate the core and coil from the enclosure. There should be no metal-to-metal contact. Rubber vibration isolating pads shall be installed by the manufacturer between the core and the enclosure. The core should then be visibly grounded to the enclosure by means of a flexible grounding conductor.

D. CONSTRUCTION

The enclosure shall be constructed of heavy gauge sheet steel, shall be drip-proof, and shall be given a suitable corrosion resisting treatment. The entire assembly shall be rigid self-supporting construction. Panels shall be capable of being readily open or removed for access to interior for installation, maintenance, and repair.

E. TRANSFORMER CIRCUIT BREAKERS

The transformer feeder circuit breaker shall be sized to be near to but not more than 250% of the primary current. The secondary transformer circuit breaker shall be rated or sized at 125% or the next standard size of circuit breaker. See MDC Sketch #750A.

C760 SHORE POWER & OFF VESSEL SERVICES

The vessel shall be set up to accept 480 volt AC, three phase, 100 amp shore power service. The receptacle shall be located on the aft bulkhead of the dredge deckhouse.

The Contractor shall provide and install one reverse service (inlet angle junction box), shore power (load making, load breaking) receptacle on the vessel. The use of this type of receptacle and plug shall allow the shore power circuit breaker to remain closed in the event of low voltage or loss of power from shore.

The reverse service receptacle to be supplied for the vessel shall be similar to a MELTRIC, model #31-64243. The corresponding connectors to be supplied for use with the receptacles shall be similar to a MELTRIC, model #31-68243.

The Contractor shall also provide 100 feet of 4-conductor shore power cable rated for 100 amp service. One end of the cable shall be fitted with the MELTRIC connector for use on the vessel. The shore side end of the cable shall be fitted with a Government furnished connector to match the shore side service.

The shore power receptacles shall be labeled for operation in accordance with contract Clause C702.

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C800 SPARE PARTS

C805 MAJOR EQUIPMENT

The bidder shall furnish a list of recommended spare parts. Included in the list and priced as an option to buy shall be one of each of the following:

- Spare pump casing
- Spare impeller
- Spare cutter blade
- Spare root knife

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PACKAGING AND MARKING

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PART I - THE SCHEDULE - SECTION D
PACKAGING AND MARKING

D01 PACKAGING

All Spare Parts shall be packaged by the Contractor for delivery and storage.

All Spare Parts shall be placed aboard the appropriate vessel, or loaded on Contractor-furnished trucks by the Contractor after they have been packaged and marked by the Contractor in accordance with the requirements of this section.

Spare Parts and materials are divided into two types based on their manner of long-term storage. All spares and materials shall be preserved for either long term "outside" storage or packaged for long term "protected" storage.

"Consumables" such as bulbs, filters, paint and hardware shall be stored aboard the vessel and do not need to be marked in accordance with Section.

"OUTSIDE" Storage Spare Parts and materials are intended to be stored for extended (two to five years) periods of time outdoors. These parts will be preserved with a paint or other preservative coating acceptable to the manufacturer and the COR; all threaded parts will be coated or filled with preservative and plastic pipe caps or plugs inserted.

"OUTSIDE" spare parts shall be fitted with contractor furnished pallets, or fixtures to raise them off the ground during storage and provide a lifting rig for moving them by crane, forklift and truck.

"PROTECTED" Storage Spare Parts are intended to be stored for extended (two to five years) periods of time in unheated warehouses.

"PROTECTED" Storage Spare Parts shall be coated with paint and other preservative coating systems as recommended by the manufacturer and acceptable to the COR and packaged for mechanical and physical protection as accepted by the Contracting Officer's Representative.

D02 MARKING

All Spare Parts and materials shall be marked or labeled by the Contractor.

All "OUTSIDE" spare parts and materials shall be marked with a stencil, in paint of a contrasting color, in at least three places, with letters not less than 3-inches high, with the following information:

VESSEL NAME
CONTRACT NUMBER
NAME OF PART (COMPLETED BY THE CONTRACTOR)
DRAWING REFERENCE (COMPLETED BY THE CONTRACTOR)
MANUFACTURER (COMPLETED BY THE CONTRACTOR)
YEAR OF MANUFACTURE (COMPLETED BY THE CONTRACTOR)
OTHER IDENTIFYING INFORMATION

Alternately, the preceding identification information may be cast into or "written" on the piece in welding electrode in at least two places with letters not less than 1-inch high. The identification information shall be cast into all steel castings provided by the Contractor.

All "PROTECTED" spare parts and equipment shall be fitted with a plastic nametag, engraved plastic nameplate or other device acceptable to the Contracting Officer's Representative with the following information completed by the Contractor:

NAME OF PART & PART NUMBER
VESSEL NAME
CONTRACT NUMBER
NAME OF EQUIPMENT OF WHICH ITEM IS A PART
DRAWING REFERENCE
MANUFACTURER
YEAR OF MANUFACTURE
OTHER IDENTIFYING INFORMATION

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PART I - THE SCHEDULE - SECTION E
INSPECTION AND ACCEPTANCE

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E01 INSPECTION

The contract will be managed by the Marine Design Center (MDC) of the U.S. Army Corps of Engineers (USACE) and is subject to inspection by its appointed representatives to insure strict compliance with the terms of the contract. No Government Representative, except the Contracting Officer, is authorized to change any provision of the specifications, nor shall the presence or absence of a Government Representative relieve the Contractor from any requirements of the contract.

The Contractor shall provide ″Safe for Workers″ labels, in accordance with the OSHA regulations stated in 29 CFR 1915.11-12, for all confined and enclosed spaces prior to permitting entrance for work or inspection. This procedure shall be reflected in the Contractor's Safety Plan. See Section H.

Entry shall not be permitted to any confined or enclosed space that does not have a current ″Safe for Workers″ label.

E02 NOT USED

E03 QUALITY CONTROL AND INSPECTION

After Notice To Proceed with "ENGINEERING & SCHEDULING" the Contractor shall develop a Contractor Quality Control (CQC) and Inspection Program for the work required in this contract. This program shall contain two sub-programs which will provide for review and quality control of the "Engineering and Scheduling" submittals and regular inspection and testing of the construction work in progress and the preparation and maintenance of documentation and records.

The first sub-program, (CQC of the engineering phase), must be submitted within 14 calendar days after the Notice To Proceed with the "ENGINEERING & SCHEDULING" phase of the contract.

The second sub-program, (CQC of the construction phase), must be submitted and accepted in the "Engineering and Scheduling" phase of the contract. The Notice To Proceed with "Repower, Test, and Delivery", will not be issued until this document is accepted.

The documentation and records of sub-program 1 shall:

- Define the review and correction process for all "Engineering and Scheduling" phase submittals with particular attention given to the Final Design Drawings.

The documentation and records of sub-program 2 shall:

- Define Contractor tests and inspections to be accomplished for each work item of the contract. Such tests and inspections shall be keyed to the appropriate paragraph of each clause.
- Be commensurate with the complexity of the work in the specification and adequate to assure the Contractor that the product or subproduct offered conforms to the requirements of the contract.
- Be available to the Government Representative at all times and contain recorded data of all Contractor conducted inspections and tests conducted to date. All Quality Control reports, including those of subcontractors and regulatory agencies will be maintained and included in the Test Report of Clause E05.
- List by name and title, the Contractor's representatives who are authorized to witness or perform and sign for each test and inspection.

The following are the minimum requirements for data to be recorded:

- Type of inspection or test (e.g., visual, mechanical, liquid penetrant, radiographic), accept/reject criteria, and a statement as to whether the inspection was satisfactory or unsatisfactory.
- Number and type of deficiencies of material or workmanship found in the product or subproduct inspected and corrective action taken to correct the deficiencies and, for repetitive deficiencies, to preclude recurrence.
- Date and signature of the Authorized Contractor Representative who witnessed or performed the test or inspection.
- Responsible authorized personnel shall inspect the work in progress and all completed work, conduct necessary tests and record the data required. An Authorized Contractor Representative shall sign the records attesting to the validity of the information.

Contractor certified inspection is an integral part of all work, therefore the COR will consider the entire contract incomplete if Contractor documentation and records signed by the Contractor's Authorized Representative are not complete.

A. SUBCONTRACTORS

Work subcontracted and/or performed away from the shipyard is covered by this inspection system. The prime Contractor cannot delegate the authority to witness or perform, and sign for tests and inspections conducted away from the shipyard, without approval of the COR.

If the subcontractor has an established Quality Control program with designated organization and personnel, the prime Contractor may designate an appropriate individual in that organization as his authorized representative. Such designation shall clearly indicate that the individual is an employee of a subcontractor and his appointment shall be subject to the approval of the COR.

B. TESTING

When any workmanship, material, or apparatus fails to pass any test or inspection, it shall be fully retested only after all known faults have been eliminated. Where directed by the COR, such failed material or apparatus shall be completely removed from the work and renewed. Any defects in workmanship or material shall be remedied by the Contractor at no additional cost to the Government, except where work was performed on material furnished by the Government.

E04 FACILITIES FOR PERSONNEL

A. GENERAL

In order for the Contracting Officer's Representative and staff to function and communicate effectively, the Contractor shall, for the life of the contract, provide a furnished office, office equipment, and other facilities as described in this section. The office shall be ready 30 days prior to arrival of the vessel.

B. OFFICE, FURNISHINGS, and EQUIPMENT

The Contractor shall provide a private office with key-lockable door (4 keys to be provided) convenient to the work. The office shall be provided for the sole use of the COR and staff. The office and facilities shall be suitable for a mixed (male/female) staff.

The office shall be furnished with not less than three desks, one standard 5-feet long drafting table, one reference table not less than 5-feet long, one small refrigerator, six clothes lockers fitted with locking devices, 4 four-drawer lockable file cabinets, three swivel type padded armchairs, three side chairs and one drafting stool.

Light, heat, ventilation, and electricity shall be furnished together with daily janitorial service. A chilled water fountain, toilet, washing, and shower facilities (complete with soap and cloth

towels) shall be provided convenient to the office, within the same structure, and on the same floor. Air conditioning shall be provided in the office.

C. TELEPHONE EQUIPMENT and SERVICE

The Contractor shall furnish the office with and maintain a total of three telephone instruments. Two of the instruments shall provide access to both the Contractor's internal phone system and to outside phone service. The remaining instrument shall provide access to a dedicated commercial telephone line. The commercial line shall provide for unrestricted usage within the area defined as "Local" to the Contractor's facility, and direct dial toll call capability. Toll charges incurred by Government personnel will be paid by the Government. One of the telephone instruments connected to the Contractor's phone system, and the telephone instrument connected to the commercial system shall have speaker phone/talk back capability for conference calling.

D. ELECTRICAL SERVICE

A minimum of six duplex convenience receptacles shall be provided and spaced about the office to accommodate a copier, telecopier, refrigerator, computer system, and miscellaneous appliances.

E. ELECTRICAL and ADMINISTRATIVE SUPPLIES

The Contractor shall provide clerical and administrative supplies, including paper, for the life of the Contract.

The Contractor shall furnish an up-to-date set of drawings for exclusive use of USACE personnel.

The contractor shall provide phone lines service independent of the phone lines required in C. above, so that a laptop PC can communicate over the internet simultaneously.

F. ACCESS TO CONTRACTOR FACILITIES

Government Representatives attending the conversion will be assigned walkie-talkie radios for intra-agency communication, cameras, and various items of test equipment. The Contractor shall permit unencumbered access to and from the shipyard and the vessel with such equipment.

G. PARKING

The Contractor shall furnish three car parking spaces within the shipyard in safe locations. The spaces shall be as readily accessible to the assigned office as practicable. The spaces will be assigned by the COR to contract management staff.

H. ADDITIONAL OFFICE EQUIPMENT

The Contractor shall provide access to the following equipment:

- Telecopier with automatic and unattended capabilities. Telecopier toll charges incurred by Government personnel will be paid by the Government.
- Photocopier with automatic original feed, reduction/ enlargement capability, and copied document sorter.

E05 TRIALS, TESTS AND DEMONSTRATIONS

A. GENERAL REQUIREMENTS

1. Levels of Testing

The Contractor shall perform tests on all equipment, machinery, and systems; individually, and integrated as a whole. The tests shall be performed as necessary to demonstrate satisfactory compliance with the Specification requirements contained in Section C, "DESCRIPTIONS/SPECIFICATIONS/WORK STATEMENTS," of this Contract.

The Contractor shall perform five levels of testing:

Level 1	Pre-Trial Tests
Level 2	Builder's Dock Trials
Level 3	Dock Trials
Level 4	Extended Dredging Trials

All demonstrations, tests, and trials shall be performed as specified herein. The Contractor shall furnish all labor, materials, tools, and test equipment as necessary and perform the testing, trials, and demonstrations specified.

2. Consumables and Operating Fluids

The Contractor shall furnish all fuel oil, hydraulic oil, lubricating oil, engine anti-freeze, treatment chemicals, degreasing agents, gases, potable water and any other consumables required to perform the tests and demonstrations.

3. Test Agenda and Test Memoranda

The Contractor shall prepare an Agenda and Test Memoranda of the required tests and trials in accordance with the requirements set forth herein. Two copies of the Agenda and Test

Memoranda shall be submitted to the COR for review and approval 30 days after NTP with repowering.

a. Test Agenda

The Contractor shall prepare a Test Agenda for Level 3 Tests and Trials. The Agenda shall be a complete, detailed schedule of all tests, trials and demonstrations specified in this clause. The Test Agenda shall be arranged by day, not date, and shall list the specific tests, trials, and demonstrations, and the sequence in which these will be performed.

b. Test Memoranda

The Contractor shall prepare Test Memoranda for all systems and equipment tested under the Levels 1, 2, 3 and 4 test and trial requirements of this clause. The test memoranda shall describe the actual test procedures, and data to be taken. The procedures shall be in accordance with the "start-up" procedures for the equipment, as delineated in the operating manuals furnished for the equipment by the manufacturer. The Contractor shall incorporate demonstrations of all applicable controls, instruments, and alarms, into each system's Builder's Dock Trials, Dock Trials and Extended Dredging Trials sections of the Test Memoranda. Data recorded in time intervals shall be tabular so that data trends can be easily recognized

Each test memorandum shall:

- Reference the operator's manual used to format the test procedure.
- Describe instrumentation for each test.
- Include a blank space for relevant nameplate data, ambient conditions, tested parameter values for each time interval, designated values for pass/fail.
- Include signature blocks for Contractor’s representatives, Government Representatives and ABS witness signatures, along with times and dates.
- Include a space for writing comments.

The Test Memoranda shall be typed on 8-1/2 inch by 11 inch sheets of paper, single side, in three ring notebook, with dividers for each test section. Each page shall include the Marine Design Center project number at the top. The memoranda shall be arranged by system and equipment, with each level of testing for a specific system or piece of equipment recorded under the respective heading.

The Test Memoranda shall be arranged by system and level of testing similar to the following outline:

X. System (or equipment)

Pre-Trial Tests
Builder's Dock Trials
Dock Trials
Extended Dredging Trials

4. Test Report

The Contractor shall compile the results of all tests and trials in a Test Report in accordance with the requirements set forth herein. Four levels of test reporting are required in accordance with the following schedule.

- Within 2 days of the completion of any Pre-Trial test, a copy of the documentation of that test shall be available to the Government Representative for review.
- A preliminary Builder's Dock Trial Test Report shall be available to the Government Representative for examination following the successful completion of Pre-Trial Tests (Level 1) and the Builder's Dock Trials (Level 2).
- Following the successful completion of Dock Trials (Level 3), the Contractor shall make the Dock Trials Test Report available to the Government Representative for review.

a. Test Report Requirements Level 1, 2, and 3.:

The Contractor shall make available a Test Report comprised of the results of all required Level 1, Level 2 and Level 3 tests and trials, and the results of all vendor's tests. The Test Report shall be the filled-in version of the Test Memoranda. The test report shall be maintained current as tests and test levels progress. The test report shall be furnished in three ring binders, with dividers for each test. The Test Report, including the results of all Level 1 and Level 2 trials, shall be available to the COR prior to, and during, the Level 3 tests. The Test Report, including the results of all Level 1, Level 2 and Level 3 tests and trials, shall be available for review by the Government Representative prior to and during the Level 4 trials. The Test Report, including the results of all Level 1, Level 2 and Level 3 tests and trials, shall be available for review by the Government Representative prior to and during the Level 5 demonstrations.

b. Test Report Review and Approval

The Test Report shall be reviewed and accepted by both the Contractor and the COR at the conclusion of each level of testing. Review and approval of the Test Report by the Contractor and the COR is a precondition of moving to the next level of testing. Within 10 calendar days following the successful completion of Extended Dredging Trials (Level 4), the Contractor shall submit the Dredging Trials Test Report to the COR for review. The final version of the Test Report, including results of all four levels of the tests and trials, shall be bound in three ring binders and submitted in triplicate, within 10 calendar days following successful completion of the Level 4 demonstrations, and prior to Final Payment.

c. Deficiencies

The COR will compile a list of deficiencies which will be given to the Contractor. All deficiencies shall be corrected. Final Acceptance of the vessel will be made following remedy of all deficiencies.

The successful completion of all tests, trials, demonstrations and remedied deficiencies, shall be determined by the COR.

B. PRE-TRIAL TESTS (LEVEL 1)

The Pre-Trial tests are designed to insure proper construction, and installation of all equipment, piping, and electrical systems, tanks, and exterior and interior bulkheads. Pre-trial tests shall be performed during the course of construction and prior to the beginning of Builder's Dock Trials (Level 2).

The COR shall be notified at least 24 hours in advance of any such testing and may, at his discretion, send a Government representative to witness any or all tests. The Contractor shall coordinate with ABS to assure that all tests required by contract to be witnessed, are witnessed. Documentation of all pre-test inspection shall be in accordance with the requirements of Clause E03 (Quality Control and Inspection). All deficiencies, including cracks, leaks, grounds detected in new circuits, or poor workmanship shall be corrected prior to commencement of Builder's Trials (Level 2). Pre-trial tests shall include the following:

1. Hull

All tanks and watertight bulkheads shall be tested in accordance with ABS Rules to the satisfaction of the ABS Surveyor. Tanks shall be tested by filling with water to the top of the vent or overflow; bulkheads below the main deck shall be hose tested for tightness prior to coating.

2. Superstructure

All weathertight exterior bulkheads, doors, windows, manholes and hatches that have been modified or added as part of the contract work shall be hose tested for tightness prior to coating.

3. Outfitting

The as-built dimensions of the spud(s) shall be verified by the COR prior to installation of any spuds on the vessel.

4. Piping System Tests

a. General

The testing requirements set forth herein include system flushing procedures to demonstrate system cleanliness and integrity on any piping added or modified as part of the contract. Hydrostatic testing shall be performed at 1-1/2 times working pressure unless indicated otherwise by the applicable code.

b. Compressed Air

Upon completion of installation, the piping of the compressed air system shall be hydrostatically tested in accordance with the ASME code. The system shall be inspected for leaks at the welds, fittings, etc. Upon completion of the hydrostatic test, the entire system shall be blown dry with air.

c. Hydraulics

Upon completion of the installation, the system's piping and fittings shall be flushed with hydraulic fluid. Jumpers shall be provided as necessary. Flushing shall be accomplished using a Contractor furnished pump to circulate the hydraulic fluid, and the Contractor furnished filters to collect all contaminants.

d. Piping

After thorough flushing, hydrostatically test all piping systems for leaks for no less than 10 minutes per test. Each system shall be inspected for leaks at the welds, fittings, hoses, etc.

e. HVAC

Blow out with compressed air all installed ductwork. Operationally test each supply and exhaust fan, along with it's ducting, to ensure absence of leaks, adequate support and acceptable vibration levels.

f. Potable Water

The Contractor shall clean, chlorinate, and flush all system tanks and piping.

5. Electrical Cabling

Insulation resistance readings of all installed or modified power and lighting cable shall be taken using a 500-volt megger, and shall be in accordance with IEEE Standard 45, Section 46. The measured cable insulation resistance must meet or exceed the minimum values outlined in the referenced IEEE publication. Also, measure the voltage drop of the longest receptacle circuit. A complete record of all readings shall be kept to assure that all circuits and equipment have been checked and for possible assistance in troubleshooting any discrepancies detected during subsequent testing.

6. Exhaust Systems

Blank off and test the flanges, welds, and gaskets of each exhaust system using compressed air and soap bubbles. All engine exhausts shall all be checked in this manner.

C. BUILDER'S DOCK TRIALS (LEVEL 2)

Builder's Dock Trials are a preliminary "run-through" of all required Dock Tests (Level 3) by the Contractor. The intent of this testing is to provide both the Contractor and the COR reasonable assurance that all equipment and systems have been thoroughly prepared and are ready for formal testing and that the Contractor has made adequate provisions for Dock Trials (Level 3).

Builder's Dock Trials shall be conducted at the Contractor's facility listed in Section B of the contract. The COR shall be notified, in writing, at least 2 working days prior to the scheduled commencement date of Builder's Trials. The Test Report must be current prior to commencing Builder's Dock Trials.

The trials shall be of sufficient scope and duration to assure that all equipment and systems are complete and capable of performing as required during Dock Trials.

D. DOCK TRIALS (LEVEL 3)

Dock Trials are the operability tests the Contractor must perform in the presence of the Government Representative to demonstrate the proper installation, operation, control, and performance of all equipment, machinery, and systems installed as part of this contract. Specific dock trials and demonstrations are defined in paragraph E.

In addition, each test or demonstration shall include control, instrumentation and alarm operation as applicable.

Prior to the start of Dock Trials, all construction and installations must be complete (except for final cleaning and touch-up painting), and all Level 1 and Level 2 testing must be successfully completed and documented. The Test Report must be current through the two levels of testing and accepted by the COR before Level 3 testing can proceed.

Commencement of Dock Trials shall not be sooner than one full working day after completion of Builder's Dock Trials. The COR shall be notified immediately of any condition which would delay the conduct of Dock Trials.

The COR shall be notified in writing 10 working days in advance of the date set for testing. Results of the Level 2 Testing must be faxed to the Marine Design Center at least one day prior to the start of the Dock Trials, if Level 2 Testing was not attended by a Government Representative.

All testing and trials shall be conducted in accordance with the Agenda and in the presence of a Government representative and vendor representatives for the following equipment:

- Dredge Pump
- Dredge Pump Reduction Gear
- Diesel Generator Set(s)
- Auxiliary Engine and Gear (if applicable)
- Variable Speed Motor Drives (if applicable)
- Main Switchgear
- Control and Monitoring System
- Winches

The Contractor shall indicate in the test memoranda which tests will be performed using the diesel generators and which tests will be performed using the shore power.

During dock trials and thereafter, the atmosphere in spaces being prepared for, and preserved by, paints and tank coatings dissolved in highly volatile, toxic, and flammable solvents (29 CFR 1915.35(b)), shall be tested frequently and shall be in accordance with the U.S. Occupational Safety and health Agency Standards regulations stated in CFR 1915.31-36.

Within 24-hours of final inspection, and before any representative of the U.S. Government boards the vessel for such duties, each compartment or space to be inspected shall be certified "SAFE FOR WORKERS" by the National Fire Protection Associations (NFPA) competent person. This means that in the compartment or space so designated:

- The oxygen content in the atmosphere is at the least 19.5 percent by volume;
- Toxic materials in the atmosphere are within permissible concentrations;
- The residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's certificate.

The Contractor shall notify the Government when this certificate has been issued. The vessel will not be inspected and accepted by the Government without an NFPA Marine Chemist certificate for each hull compartment designated "SAFE FOR WORKERS."

The success of all tests and the existence of any deficiencies shall be determined by the COR. Deficiencies shall be remedied prior to start of the Extended Dredging Trials (Level 4).

E. SPECIFIC DOCK TRIALS AND DEMONSTRATIONS

The Contractor shall test in the presence of the Government representative all onboard equipment and systems. Among the tests performed shall be the following:

1 DIESEL ENGINES

For the generator set(s), auxiliary engine and dredge pump engine demonstrate the following in the presence of an authorized manufacturer's representative:

- Cold starting. The cold starting testing shall demonstrate the minimum number of starts required by ABS for each engine.
- Starting and stopping of each engine from all control panels.
- Operation of all emergency stops.
- Operation of all engine alarms from all control panels. Ensure the proper operation of all alarm test circuits for each main engine.

2 LOAD BANK TESTING

- Each diesel generator shall be load bank tested. Operate each generator set at 1/4, 1/2, 3/4 and full loads in 15 minute intervals, and then at 110% rated load (with the use of a load bank) for a minimum of 2 hours until the jacket water and exhaust temperatures stabilize.
- On board loads may be used to supplement, or in lieu of, the load bank provided that the Contractor can demonstrate a stable load for the duration of the test including power factor. Load levels required below shall be based on the engine rating.
- All engine and generator parameters shall be recorded at 5-minute intervals for the partial and full load periods, and at 15-minute intervals for the 110% load period. If the test is interrupted for any reason, the entire test must be repeated.
- If applicable, operate the generators in parallel for two hours each, at no less than 60% of the combined rated load. Record all engine and generator parameters at 30-minute intervals.

3 ENGINE COOLING SYSTEM

- Demonstrate that proper cooling water flow takes place during the operation of the dredge pump and auxiliary engines and diesel generators.
- Inspect the system for leaks.

4 ENGINE EXHAUST SYSTEM

- Demonstrate the operation of each engine and diesel generator exhaust system.
- Inspect each system for leaks and verify the backpressure on each system.

5 FUEL OIL SYSTEM

- Ensure proper fuel flow to the engines during operation.
- Demonstrate operation of all remote operated shut-off valves.
- Ensure correct operation of the fuel oil coolers.
- Check for evidence of leaks at connections.

6 BILGE SYSTEM

Demonstrate the operation of the potable bilge pump by taking suction from the compartment farthest from each pump and discharging the flow overboard.

7 POTABLE WATER

- Demonstrate capability of the potable water pressure set to cycle on and off at the set pressures and deliver water to the toilet and sink.
- Extract sufficient water effluent samples and have them tested by a qualified facility to demonstrate that the water meets the EPA regulations of Title 40, Chapter 1, Part 141 – "National Interim Primary Drinking Water Regulations."
- Measure the chlorine level in each potable water tank using a standard test kit.

8 SANITARY & SEWAGE SYSTEM

Demonstrate proper operation of the system by flushing the toilet several times. Demonstrate operation of the holding tank pumpout system.

9 FIXED FIRE EXTINGUISHING (CO_2) SYSTEM

In the presence of a manufacturer's representative perform an operational test on the CO2 systems to demonstrate operation of the trip devices, nozzles, audible alarms and the automatic shutdown of the ventilation system fans. Note: This system must be certified by the National Fire Protection Associations (NFPA) competent person.

10 FIRE DETECTION & ALARM SYSTEM

Demonstrate the operation of the fire detection system. The testing and trials shall demonstrate activation of the alarms from each smoke detector and heat sensor. A representative of the alarm system shall be present during the tests and trials of the detection and alarm system.

11 HVAC

- Demonstrate the operation of the air conditioning and heating equipment.
- Demonstrate the operation and measure the cfm output of all ventilation fans.

12 COMPRESSED AIR SYSTEMS

- Fill the air receiver from empty to automatic shut off using the compressor. Record the time to fill tank and the cut-out pressures of the compressor.
- Bleed air from the system until the respective compressor cuts in. Record the cut-in pressures.
- Demonstrate air availability at each service air connection.

13 WINCHES AND HOISTS

- Demonstrate operation of the ladder winch by raising and lowering the ladder.
- Demonstate operation of the spud hoists.
- Demonstrate operation of the swing winches.
- Demonstrate operation of the traveling spud carriage
- Load test the deck crane at overload conditions.

14 HYDRAULIC SYSTEMS

If applicable, demonstrate the operation of the hydraulically operated spud hoist cylinder and the traveling spud carriage.

15 DREDGING SYSTEM

- Demonstrate operation of the dredge pump priming system.
- Conduct a performance test on the dredge pump using clear water. The objectives of these performance trials shall be to demonstrate operation of the dredge pump, pump drive, pump controls, gear lube oil cooling system, and gland flushing system; to develop pump performance curves (flow vs. head and NPSHR); and to familiarize the USACE crew members with operation of the new pump drives and controls.
- Operating at full and ¾ speeds, the pump shall be tested at three separate operating points along its performance curve, for a total of six trials. Each trial shall be run for a period of 1 hour, during which the Contractor shall measure and record - at 15 minute intervals - the pump suction and discharge pressures, dredge pump reduction gear lube oil and cooling water pressures and temperatures, the flow rate of gland flushing water, and the dredge discharge pipeline water velocity.
- Prior to the test the Contractor shall fabricate three, sharp-edged type orifice plates sized to develop discharge pressures equal to those at pipeline lengths of 1000 feet, 3000 feet and 5000 feet. The diameters of the orifices shall be determined by the Contractor and shall be installed in the dredge pipe at the discharge connection. Beginning with the smallest size orifice, the Contractor shall install each orifice plate in turn and conduct performance trials on the dredge pump at speeds of full and ¾ speeds.

16 CONTROLS, INSTRUMENTATION AND ALARMS

- All control, instrument, and alarm functions shall be demonstrated with the system or equipment for which they function. All remote control, indication, and alarm

functions shall be divided up and included on the Test Data Sheet with the test or demonstration with which they are most logically associated. Similarly, all local control, instrumentation, and alarm functions shall be included on the Test Data Sheet demonstrated with the test or demonstration with which they are associated.

- Controls - Automatic controls shall be demonstrated by exceeding the parameter set point(s), during the specified operations if possible; otherwise, the Contractor shall develop a specific test to extend an operating parameter beyond it's set point(s). Also, a sensor set point may be manually activated. If these "natural" methods of testing are impractical due to excessive time or disassembly, then the control contacts may be bridged or opened to simulate a control function. Relief valves shall be considered a control device and tested to insure proper actuation at the specified pressure. Manual and remote controls shall be demonstrated during the specified operations if possible otherwise the Contractor shall develop a specific test for which the control function can be demonstrated.
- Instruments - Demonstration of instruments and other non-alarm indicators shall consist of recording the readings once during the appropriate time of operation or as specified. The appropriate time of operation is the time at which the instrument is displaying a useful output. If an operation for which an instrument reading can be recorded is not specified, the Contractor shall develop one.
- Alarms - Similar to control demonstrations, alarms shall be demonstrated by exceeding the parameter limit(s) during the specified operations if possible; otherwise, the Contractor shall develop a specific test to extend an operating parameter beyond it's limit(s). Also, a sensor limit may be manually activated. If these "natural" methods of testing are impractical due to excessive time or disassembly, then the alarm contacts may be bridged or opened to simulate an alarm condition.

19 AC ELECTRICAL SYSTEM

- Switchgear - Demonstrate the operation of all circuit breakers and all equipment in the main switchboard. Safely demonstrate all mechanical and electrical interlocks on the generator breakers, bus ties breakers, and shore power breakers.
- Variable Speed Drives (if applicable) – Demonstrate operation of all variable speed drives, including monitoring, controls, and shutdowns.
- Switchboard - Demonstrate all features of the switchboard such as the voltmeters and selector switches, ammeters and selector switches, frequency meters and selector switches, power available indicator lights, space heaters, ground detection lights and test switches, and ground ammeter and test switch.
- Distribution Panels - Demonstrate the operation of all circuit breakers in the distribution panel boards.

- Convenience Receptacles - Demonstrate the operability of all receptacles. Check the receptacles for polarity and voltage drop. For GFCI types, demonstrate their ability to reset.
- Lighting - Demonstrate the operation of all new interior, exterior and floodlights. Demonstrate the operation of all new lighting switches.

20 DC ELECTRICAL SYSTEM

- Demonstrate the general operation of the DC electrical system.
- Distribution Panels - Demonstrate the operation of all circuit breakers in the DC panels.
- Demonstrate the operation of all battery chargers.

22 NOISE SURVEY

The survey will entail the taking of sufficient noise measurements in each of the vessel's manned spaces, including quarters, and at several exterior locations on-deck to determine noise levels. A report shall be prepared containing the survey results.

The Contractor shall perform the survey using a subcontractor especially qualified for this work either by training or experience. The Contractor shall identify the proposed subcontractor in the Subcontracting Plan (Clause H12) and include the subcontractor's qualifications.

The test shall be conducted with the ventilation systems and dredge pump engine operating at full speed, and the auxiliary engine and generator(s) operating at normal load.

The sound levels reported for each compartment shall be based on the average of the broadband A-weighted sound pressure levels taken at various representative locations of the reverberant field of the compartment or space in question. These measurements shall typically be taken at locations within a space where operating personnel are expected to spend a majority of their time. Measurements shall be taken in accordance with NVIC 12-82.

A report shall be prepared by the Contractor detailing the test results. The report shall include:

- A tabulation of the actual raw data taken during the survey for noise.
- Sketches of the spaces measured with the recorded sound levels denoted at the location of their measurement. Reduced size general arrangement drawings will be acceptable for this purpose.

The Contractor shall take corrective action as necessary to achieve the required criteria. The report shall describe any compartments which present a noise hazard according to OSHA regulation, 29 CFR 1910.95 "Occupational Noise Exposure".

The Contractor shall prepare a report detailing the test results.

F. EXTENDED DREDGING TRIALS (LEVEL 4)

Following "Provisional Acceptance" by the Government, delivery by the Contractor (Clause E07), and a 7-14 day period to outfit the vessel in St. Paul, the Government shall exercise the vessel for a period of 14 calendar days. This period shall be considered "Extended Dredging Trials". Daily operation during dredging trials will be three eight-hour shifts, including the preparation of a meal during each shift. During this period the Government will place the vessel at a dredging location within the St. Paul, MN area and perform dredging operations with the Government crew. The Contractor shall participate in these trials.

The Contractor shall furnish manpower to train the government crew to operate the vessel, troubleshoot problems and make necessary adjustments and repairs. As a minimum, the Contractor shall arrange to have 2 of his own experienced shop personnel on board to handle routine mechanical and electrical problems; enough operators to completely man the vessel one shift per day; and one representative of the manufacturer of the dredge automatic control system to instruct the government crew members in troubleshooting problems and if necessary, repairing and adjusting the controls.

The Government will provide ship-to-shore launch service for the Contractor's crew. The Contractor shall provide land side/shore transportation, lodging and subsistence (except for the meals prepared in the preceding paragraphs) for his personnel and the manufacturer's representatives, for the entire period.

The Government will provide all necessary fuel, lubes, and other consumables (except parts) for the Extended Dredging Trials.

The Contractor shall develop a Schedule for the first 7 calendar day period, which will include final adjustments to all equipment under operating conditions by the manufacturer's representatives and training and demonstrations for the Government crew of all equipment and systems in the vessel. The schedule shall be prepared and submitted to the COR for approval during the "Engineering & and Scheduling Phase".

The Contractor shall prepare a daily record of the adjustments made, training, operations performed and other milestones. This record shall be bound and submitted in the same quantities and manner as the Test Report.

In the event trials are delayed more than four hours due to contractor performance, the contractor shall extend the length of time for trials four hours for each four-hour period of downtime. The COR shall determine when failure of equipment or machinery is of sufficient importance to call a delay in the trials. The correction of the equipment or machinery failure shall be to the satisfaction of the COR or his representative prior to resuming trials and calculating trial time extension.

E06 FINAL INSPECTION

When all work and Phase 3 testing has been satisfactorily completed at the builder's yard, the Contractor and a Government Representative shall make a complete physical inspection and inventory of the vessel. A "punch list" of deficiencies will be developed and presented to the Contractor for corrective action.

All corrective action necessary to eliminate the "punch list" deficiencies shall be completed at the Contractor's facility. The Contractor shall give the COR 7 working days notice prior to the desired date of reinspection.

Prior to any inspection or reinspection, the vessel and all its equipment shall be thoroughly cleaned and all painting and finishes required to be performed by the contractor put in first class condition.

At the time of Final Inspection, the Contractor shall take water samples of the potable water on board the vessel for a water analysis. The Contractor shall have the water analyzed by a subcontractor especially qualified for this work. The Contractor shall identify the proposed subcontractor in the Subcontracting Plan (Clause H12) and include the subcontractor’s qualifications.

A lab report shall be prepared showing that the potable water provided on the vessel meets the standards prescribed in the Environmental Protection Agency's Primary Drinking Water Regulations as set forth in 40 CFR part 141.

If the potable water fails to meet the EPA standards, the Contractor shall clean and flush the potable water system and potable water storage tanks. Fresh potable water meeting the EPA standards shall be supplied and a second lab report verifying that the potable water supplied meets the EPA standards shall be prepared.

E07 PROVISIONAL ACCEPTANCE AND DELIVERY

Delivery of the vessel may not be started until Provisional Acceptance of the vessel has been made. The vessel will be Provisionally Accepted at the builder's yard upon satisfactory completion of the following:

- Phase 3 Tests and Trials.
- Correction of all "punch list" deficiencies
- Receipt of a "passing" potable water lab report
- Receipt of required contract deliverables

The Contractor shall deliver the vessel to St. Paul, MO. The vessel shall be delivered under tow by a vessel operated by contractor personnel. The vessel shall be subject to a complete inspection at the time of delivery.

The Contractor shall assume all costs associated with the delivery and shall deliver the vessel afloat and “Ready for Service”, which is defined as clean inside and out; all trash, dunnage, lashing, and delivery related material disposed of; loose items of outfit in place; all electrical and mechanical systems operational; equipment properly adjusted; instruments and electronics calibrated or aligned, fuel and water tanks filled and damaged paint touched up. The Contractor shall provide necessary personnel, equipment and materials to make the vessel "Ready for Service". Every space, compartment, and deck of the vessel shall be cleaned to the satisfaction of the COR.

E08 FINAL ACCEPTANCE

Final Acceptances will be made following successful completion of the Extended Dredging Trials (see Clause EO5) being performed by the Government. Following Dredging Trials the contractor’s crew shall be responsible for touching up any damaged paint and providing any necessary adjustments, alignments or calibrations still remaining. Final acceptance will be made at the Dredging Trial site.

E09 COMMERCIAL WARRANTY OF SUPPLIES

The Contractor shall assign, in writing, all commercial warranties for equipment provided under this contract to the Government. The effective date of all commercial warranties shall be the date of Final Acceptance.

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PART I - THE SCHEDULE - SECTION F
DELIVERY OR PERFORMANCE

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PART I - THE SCHEDULE - SECTION F
DELIVERIES OR PERFORMANCE

F01 PERFORMANCE

FAR 52.211-8 TIME OF DELIVERY (JUN 1997)

(a) The Government requires completion of all work and delivery to be made in accordance to the following schedule:

REQUIRED DELIVERY SCHEDULE

ITEM NUMBER	DESCRIPTION	QUANTITY	WITHIN DAYS AFTER DATE OF NOTICE TO PROCEED
0001AA	PLANNING	1 job	60 Calendar days
0001AB	ENGINEERING AND SCHEDULING	1 job	180 calendar days
0001AC	CONSTRUCT, TEST AND DELIVER	1 job	365 calendar days

Optional Item:

ITEM NUMBER	DESCRIPTION	QUANTITY	WITHIN DAYS AFTER DATE OF NOTICE TO PROCEED
0001AD	SPARE PARTS	1 lot	465 calendar days

The Government will evaluate equally, as regards time of delivery, offers that propose delivery of each quantity within the applicable delivery period specified above. Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above, will be considered non-responsive and rejected. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule, when an earlier delivery schedule than required above. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

OFFEROR'S PROPOSED DELIVERY SCHEDULE

ITEM NUMBER	DESCRIPTION	QUANTITY	WITHIN DAYS AFTER DATE OF NOTICE TO PROCEED
0001AA	PLANNING	1 job	calendar days
0001AB	ENGINEERING AND SCHEDULING	1 job	calendar days
0001AC	CONSTRUCT, TEST AND DELIVER	1 job	calendar days
0001AD	SPARE PARTS	1 lot	calendar days

(b) Attention is directed to the Contract Award provision of the solicitation that provides that a written award or acceptance of offer mailed, or otherwise furnished to the successful offeror, results in a binding contract. The Government will mail or otherwise furnish to the offeror an award or notice of award not later than one day after the award is dated. Therefore, the offeror should compute the time available for performance beginning with the actual date of Notice To Proceed rather than the date the written notice is received from the Contracting Officer through the ordinary mails. However, the Government will evaluate an offer that proposes delivery based on the Contractor's date of receipt of the contract or notice of award by adding five days for delivery of the award through the ordinary mails. If, as so computed, the offered delivery date is later than the required date, the offer will be considered non-responsive and rejected.

(End of Clause)

For the purpose of estimating the phase completion and contract completion dates, the Contractor should take into account the time required to review the Contractor's submittals and the time between phases required to issue a Notice To Proceed. Refer to Clause H01 for additional explanation.

If the Government exercises the optional line item (0001AD), the option will be exercised within 180 days from the issuance of Notice to Proceed (NTP) with item 0001AA, Planning.

F02 PLACE OF DELIVERY

The Contractor shall deliver the dredge afloat and ready for service at the following location:

U.S. Army Corps of Engineers
U.S. Army Engineer District, St. Paul
Fountain City Service Base
Fountain City, Wisconsin
Mile 733.7 Upper Mississippi River

F03 NOT USED

F04 LIQUIDATED DAMAGES

FAR 52.211-11 LIQUIDATED DAMAGES – SUPPLIES, SERVICES OR RESEARCH AND DEVELOPMENT

(a) If the Contractor fails to deliver the supplies or perform the services within the time specified in this contract, or any extension, the Contractor shall, in place of actual damages, pay to the Government as fixed, agreed, and liquidated damages, for each calendar day of delay the sum of:

For Line Item 0001AA; .....$ 200.00
For Line Item 0001AB;.....$ 510.00
For Line Item 0001AC, first 127 days;.....$ 1,050.00
For Line Item 0001AC, 128th day onward;.....$ 4,050.00

(b) Alternatively, if delivery or performance is so delayed, the Government may terminate this contract in whole or in part under the Termination for Default - Fixed Price, Supply and Services clause in this contract and in that event, the Contractor shall be liable for fixed, agreed, and liquidated damages accruing until the time the Government may reasonably obtain delivery or performance of similar supplies or services. The liquidated damages shall be in addition to excess costs under the Termination clause.

(c) The Contractor shall not be charged with liquidated damages when the delay in delivery or performance arises out of causes beyond the control and without the fault or negligence of the Contractor as defined in the Termination for Default - Fixed Price, Supply and Services clause of this contract.

(End of Clause)

F05 FOB DESTINATION CLAUSE

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

(a) The term "f.o.b. destination," as used in this clause, means-

(1) Free of expense to the Government, on board the carrier's conveyance, at a specified delivery point where the consignee's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located; and

(2) Supplies shall be delivered to the destination consignee's wharf (if destination is a port city and supplies are for export), warehouse unloading platform, or receiving dock, at the expense of the Contractor. The Government shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery (or "constructive placement" as defined in carrier tariffs) of the supplies to the destination, unless such charges are caused by an act or order of the Government acting in its contractual capacity. If rail carrier is used, supplies shall be delivered to the specified unloading platform of the consignee. If motor carrier (including "piggyback") is used, supplies shall be delivered to truck tailgate at the unloading platform of the consignee, except when the supplies delivered meet the requirements of Item 568 of the National Motor Freight Classification for "heavy or bulky freight." When supplies meeting the requirements of the referenced Item 568 are delivered, unloading (including movement to the tailgate) shall be performed by the consignee, with assistance from the truck driver, if requested. If the contractor uses rail carrier or freight forwarded for less than carload shipments, the contractor shall ensure that the carrier will furnish tailgate delivery, when required, if transfer to truck is required to complete delivery to consignee.

(b) The Contractor shall--

(1) (i) Pack and mark the shipment to comply with contract specifications; or
(ii) In the absence of specifications, prepare the shipment in conformance with carrier requirements;

(2) Prepare and distribute commercial bills of lading;

(3) Deliver the shipment in good order and condition to the point of delivery specified in the contract;

(4) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by the consignee at the delivery point specified in the contract;

(5) Furnish a delivery schedule and designate the mode of delivering carrier; and

(6) Pay and bear all charges to the specified point of delivery.

(End of clause)

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PART I – THE SCHEDULE – SECTION G
CONTRACT ADMINISTRATION DATA

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PART I - THE SCHEDULE - SECTION G
CONTRACT ADMINISTRATION DATA

G01 ACCOUNTING AND APPROPRIATION DATA

96 X 4902 RF
WORK ITEM NUMBER: 001T2H

G02 CONTRACT MANAGEMENT

Marine Design Center
U.S. Army Corps of Engineers
Wanamaker Building
100 Penn Square East
Room 630 South
Philadelphia, Pennsylvania 19107-3391

NOTE: The Marine Design Center is the "Designated Billing Office" as defined by Part II - Contract Clauses - Section I, "Prompt Payments"

G03 PAYMENT OFFICE

U.S. Army Corps of Engineers Finance Center
5720 Integrity Drive
Millington, TN 38054-5005

G04 CONTRACT ADMINISTRATION

Commander and District Engineer
U.S. Army Corps of Engineers District, Philadelphia
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PART I - THE SCHEDULE - SECTION H
SPECIAL CONTRACT REQUIREMENTS

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PART I - THE SCHEDULE - SECTION H
SPECIAL CONTRACT REQUIREMENTS

H01 CONTRACT ORGANIZATION

A. PLANNING

Planning is Line Item 0001AA of the contract and commences only after receipt by the Contractor of a Notice of Contract Award (Award) and a Notice To Proceed (NTP) with contract Line Item 0001AA , "PLANNING," respectively. In this first phase of the contract, the Contractor is required to present planning information that demonstrates a logical, orderly and workable approach to the contract. The Contractor is not authorized to begin the engineering and scheduling until this phase of the project is completed, and the planning documents are approved by the COR, at which time an additional Notice To Proceed will be issued.

B. ENGINEERING & SCHEDULING

Engineering and Scheduling is line item 0001AB of the contract and commences only after receipt by the Contractor of a Notice To Proceed with contract Line Item 0001AB, "ENGINEERING & SCHEDULING," respectively. In this second phase of the contract, the Contractor is required to complete the design, perform other production engineering, and develop the contract schedule. The Contractor is not authorized to begin physical construction until this phase of the project is completed, and the engineering and scheduling documents are approved by the COR, at which time an additional Notice To Proceed will be issued.

C. CONSTRUCT, TEST AND DELIVER

Construct, Test, and Deliver is line item 0001AC of the contract and will commence only after completion of the Engineering and Scheduling phase and receipt by the Contractor of Notice To Proceed with Line Item 0001AC, respectively. During this third phase of the contract, necessary records and scheduling documents shall be completed, the vessel constructed, tests and trials performed and physical delivery shall be made. This phase of the contract is completed with receipt by the Contractor of a letter of Final Acceptance and submittal of all final documents.

D. PHASE SEQUENCING

It is intended that the three phases for the vessel will be performed sequentially.

The time allotted for each phase spans an interactive process involving both the Contractor and the Government. This process includes preparation, review and approval of the phase submittals, contract administration, mailing, preparation and issuance of Notices To Proceed.

In order for the Contractor to plan the work and for the Government to properly apply Liquidated Damages and Termination Clauses, a graphic identifying the sequence milestones and the performance period allotted to each milestone has been developed and is shown on a following page.

The graphic shows the three basic contract phases. Each contract phase is further subdivided into the milestones that must be completed within each phase and the amount of time allowed to accomplish each. Note that the total time allowed for each phase of the contract matches the "REQUIRED DELIVERY SCHEDULE" in Clause F01. The graphic will be updated to reflect the successful Offeror's proposed schedule if it is shorter than the required schedule.

The milestones and periods of performance identified in the graphic are contract requirements.

The Contractor must be aware that the quality, completeness and detail of the submittals have a direct bearing on the approval process. Extended review iterations will extend the time necessary to receive approval of the submittals and will subject the Contractor to assessment of Liquidated Damages or Termination for Default.

Refer to Clause H05 for information concerning the submittal review process.

CONTRACT PHASE SEQUENCING

Receipt by Contractor of NTP Phase I (Planning)

Phase I 60 Calendar Days	30 Calendar Days	Receipt @ MDC of initial submittal of all Phase I deliverables
	15 CD	Receipt by Contractor of submittal review
	15 CD	Receipt @ MDC of final revised Phase I deliverables (if necessary)
10 CD		Receipt by Contractor of NTP Phase II (Engineering & Scheduling)
Phase II 180 Calendar Days	120 Calendar Days	Receipt @ MDC of initial submittal of all Phase II deliverables
	30 CD	Receipt by contractor of submittal review
	30 CD	Receipt @ MDC of final revised Phase II deliverables (if necessary)
30 CD		Receipt by Contractor of NTP Phase III (Construct, Test & Deliver)
Phase III 365 CD	365 Calendar Days	Construct, Test and Deliver Final Acceptance

H02 CONTRACTOR SUBMITTALS

A. PLANNING PHASE I - SUBMITTALS

The following is a summary of the items that the Contractor must submit during the Planning Phase. All items must be received, reviewed and accepted by the COR before a Notice To Proceed (NTP) will be issued for the Engineering and Scheduling phase of the contact:

SUBMITTAL ITEM	CONTRACT CLAUSE REFERENCE
• Quality Control Plan for Phase II	E03
• Authorized Contractor Representative List	E03
• Construction Plan	H06
• Procurement Plan	H08
• Subcontracting Plan	H09
• Engineering Qualifications	H09
• Submittal Schedule	H11
• Drawing Index	H12

B. ENGINEERING & SCHEDULING PHASE II - SUBMITTALS

The following is a summary of items that the Contractor must submit after a Notice To Proceed with the "ENGINEERING & SCHEDULING" phase of the contract is issued. All items must be received, reviewed, and approved by the COR before a Notice To Proceed with the "CONSTRUCT, TEST & DELIVER" phase of the contract will be issued. The following items are required:

SUBMITTAL ITEM	CONTRACT CLAUSE REFERENCE
• Tank Capacity (Sounding) Tables	C130
• Rigging Plan	C201
• Paint Schedule	C406
• Heating & Cooling Load Calculations	C685
• Voltage Drop Analyses	C725
• Cable Schedule	C725
• Switchboard Layout & Information	C740
• Quality Control & Inspection Plan for Phase III	E03
• Test Memoranda & Agenda	E05
• Contractor Safety Plan	H07
• Material & Equipment Schedule	H10
• Engineering & Drawings	H13
• ABS Reviewed and Stamped Drawings and Documents	C004 & H13

C. CONSTRUCT, TEST, & DELIVER PHASE III - SUBMITTALS

The following is a summary of items that the Contractor must submit after a Notice To Proceed with the "CONSTRUCT, TEST, and DELIVER" phase of the contract is issued. All items must be received, reviewed and approved by the COR before Final Payment will be made. The following items are required:

SUBMITTAL ITEM	CONTRACT CLAUSE REFERENCE
• ABS Certificate of Classification	C004
• Welder Certification	C025
• Paint Certification & Warranty	C406
• Certification of Spud Length	C551
• Certificate of Examination and Test of Wire Rope	C580
• Test Schedule	E05
• Test Report	E05
• Noise Survey	E05
• Potable Water Lab Report	E06 & E07
• Commercial Warranties	E09
• Purchase Orders\Specifications	H10
• As-Built Drawings	H14
• Manufacturer's or Subcontractor's Drawings and Manuals	H16
• Operator's Manual	H17
• Record Photographs	H18

H03 DESIGN REQUIREMENTS

The Contractor shall provide the necessary engineering to develop the Final Design for the vessel.

The scantlings and main structure for the hull, deckhouse and foundations shall be defined. Structural drawings shall delineate all structural members, brackets, plating and plate seams, all welding and all joint details complete with all dimensions noted. "Typical" views may be used for numerous repetitions of identical or mirror images. Every effort shall be made to make the design consistent from sheet to sheet and drawing to drawing. Calculations showing that all plate, bulkheads, stiffeners, girders, stanchions and diagonals meet the minimum requirements of ABS and any specific requirements of Section C of this solicitation shall be submitted with the structural drawings. The calculations shall be clearly annotated as to specific requirement being addressed and explanation of all assumptions.

For the mechanical systems, all pumps, compressors, heat exchangers, hydraulic components and machinery, deck machinery and ancillary equipment shall be sized and selected. The mechanical system drawings shall show all valves, filters, controls, receivers, pumps, strainers, sea chests, consumers, takedown connections, separators and other principal features or devices to scale. The drawings shall consist of a system schematic on the first sheet, a detailed system drawing superimposed on a vessel arrangement with a Material List and a Equipment List and necessary sections and elevations on the second and subsequent sheets. On detailed drawings, pipe 1" diameter and smaller may be shown as single lines, while larger pipe shall be shown as double lines depicting the actual scaled size. Pipe shall be located and dimensioned in the vertical and horizontal plane. Sections and elevations are required only to ensure that piping, ducting and cabling are routed through congested areas without interference. Calculations sizing the equipment shall be submitted with the system drawing. These calculations shall include the sizing of piping systems and pumps. Catalog cut-sheets of all equipment shall be submitted with the drawing.

Major equipment on all drawings (engines, motors, pumps, strainers, etc.) shall be shown in actual outline form (not schematic or by block). System routings shall be sufficiently detailed to identify the intended routing with respect to vessel structure, elevation, major vessel equipment and major components of other systems, but without dimensions.

The electrical system shall be defined with consumers identified and quantified, controls and switchgear identified, a complete load analysis, short circuit analysis and one line diagram prepared and generator sets selected. Cabling and lighting drawings shall be prepared using the general arrangements for background. Catalog cut-sheets of the gensets and primary power equipment shall be submitted with the system drawings.

Joiner details and material selection shall be worked out with schedules for sheathing, insulation, doors, windows, furniture, fixtures, etc. Catalog cut-sheets shall be submitted with the system drawings.

During the development of the Final Design, the Contractor may discover circumstances that dictate a need to change some of the equipment or materials specifically required by the contract. Examples of this situation might be that the item is no longer available, or the lead time is too great to meet the vessel delivery. Such circumstances shall be immediately identified to the COR by letter for resolution, along with a proposed solution. Adjustments to the contract required as a result of such circumstances, will be made under the "CHANGES" Clause.

The Contractor shall prepare Final Design drawings for regulatory submittals, COR submittal, "As-Built" drawings, and other technical details necessary to support his administration, operation, and production practices. Refer to Clause H13, Engineering & Drawings, for a minimum list of required drawings and drafting standards.

H04 NOT USED

H05 REVIEW OF CONTRACTOR SUBMITTALS

The Marine Design Center (MDC) will review the drawings, data and other material submitted by the Contractor in the various contract phases for the vessel.

Submittals from the Contractor must be clear as to what the submittal represents and the action the Contractor requests the Government perform.

The Government's review is intended to be limited to the functional aspects of the submittals with limited technical review of general cursory nature only.

The Contractor shall comply with the requirements of the design embodied in the contract. Where review, approval, classification or certification by ABS, USCG, or other regulatory agency is a provision of the contract, Government review of Contractor submittals may not address the requirements of those agencies. It is implicit that Government acceptance of submittals will be contingent upon satisfactory fulfillment of those requirements.

Submittals found to be completely acceptable to the Contracting Officer's Representative without comment will be marked "ACCEPTED."

Submittals found to be generally acceptable to the Contracting Officer's Representative with qualifying comments will be marked "ACCEPTED WITH COMMENTS" but may or may not require resubmission depending on the COR's assessment of the criticality of the comments.

"ACCEPTED WITH COMMENTS" submittals being resubmitted will be reviewed only to ensure that the previous comments have been adequately incorporated. Resubmission requirements will be clearly marked on the return.

Submittals unacceptable to the Contracting Officer's Representative will be marked "NOT ACCEPTED." Submittals not accepted will always require full and complete re-submittal. Such re-submittal will result in a full and complete review as though it was a first submittal.

Submittals furnished for information only or for which the Contractor has not indicated the required review action will be marked "EXAMINED."

The Contractor shall insure that all review comments are incorporated in corrected submittal documents or are rebutted in separate correspondence. The Contractor is encouraged to completely discuss all submittal comments with the MDC author in order to insure complete and effective communication.

The Contractor will not use the drawing review or submittal process for contract deviations. Changes in equipment, materials, construction techniques or details must be the subject of separate, specific correspondence. Any such request made by the Contractor must be specific and clear as to what is contractually required, the proposed change, location and/or extent, benefits resulting from the change and effect on contract cost and delivery.

Submittals for review by the Government will be return mailed in accordance with the Contract Phase Sequencing graphic presented in Clause H01. Contractors shall plan their submittal schedules so as not to affect contract performance.

H06 CONSTRUCTION PLAN

After receipt of the Notice To Proceed with Line Item 0001AA, PLANNING, the Contractor shall develop and submit to the Contracting Officer's Representative the Contractor's proposed plan for the construction of the vessel.

The plan shall be prepared on USACE standard ENG Form 2454 (Construction Progress Chart) furnished by the Government. A copy of this form is included in Section J. The plan will be a summary level view of the contract. The plan will show the Contractor's proposed starting date, duration in weeks, ending date, and percentage completion (both as planned and as achieved) for all of the major activities of the contract. The plan shall also show the amount of the total bid price (percent and actual dollars) associated with each activity. The plan will also have the progress "S" curve plotted (both as planned and as achieved).

The activities shown on the chart shall be developed by the Contractor and shall include, as a minimum, the following:

- Direct Construction Labor, separated into principal vessel areas
- Material Purchases separated into principal vessel areas
- Material Deliveries separated into principal vessel areas
- Engineering
- Construction of modules
- Test and Trials
- Delivery (Shipment)
- Overhead and Profit

In addition, the following milestone events, as a minimum, shall be marked on the chart time-line:

- Award of Contract
- Notice to Proceed with “PLANNING”
- Notice to Proceed with “ENGINEERING & SCHEDULING”
- Notice To Proceed with “CONSTRUCT, TEST & DELIVER”
- Tests and Trials
- Final Inspection
- Provisional Acceptance
- Delivery
- Final Acceptance

After review, revision as necessary and approval by the COR; the plan shall be updated and submitted monthly with the Progress Payment Request.

H07 CONTRACTOR'S SAFETY PLAN

After Notice To Proceed with Line Item 0001AB, ENGINEERING & SCHEDULING, the Contractor shall submit a Safety Plan for the facility at which the work is to be performed.

The Contractor's Safety Plan shall outline the procedures used by the Contractor to ensure the safety of his employees and minimize lost-time accidents.

The Safety Plan shall identify by name and title the Contractor's Safety Officer who is responsible for enforcing the Contractor's safety rules and the Contractor's designated "Competent Person" (29 CFR 1915.7) who is responsible for testing the atmosphere in confined and enclosed spaces. In the event that the Contractor has no designated "competent person," a statement that a Marine Chemist will perform the tests and inspections that require a "competent person" shall be included with the Safety Plan, and the name of the Marine Chemist shall appear on the Subcontracting Plan (Clause H09).

H08 PROCUREMENT PLAN

After Notice To Proceed with Line Item 0001AA, PLANNING, the Contractor shall submit a Procurement Plan for the vessel.

The Procurement Plan shall identify the major or schedule controlling components and equipment in the contract, estimated delivery time for each, the selected vendor and planned date of ordering.

The Procurement Plan shall be in "spread sheet" format and will later be developed into the Material and Equipment Schedule of clause H10.

Upon written approval of the Procurement Plan by the COR, the Contractor may commence procurement of any or all of those items on the plan.

Costs for long lead items and materials which are in the accepted procurement plan must be included on the bid schedule under line item 0001AC, CONSTRUCT, TEST, AND DELIVER. Progress payments will be made in accordance with Clause H20, Progress Payment Based On A Percentage Or Stage Of Completion.

H09 SUBCONTRACTING PLAN

After Notice To Proceed with Line Item 0001AA, PLANNING, the Contractor shall submit a Subcontracting Plan for the contract. This should not be confused with the SUBCONTRACTING PLAN required of Large Business as a part of their affirmative action responsibilities.

The Subcontracting Plan shall identify the areas or features of the contract or vessel which will be performed, all or in part by Subcontractors. The plan shall identify the scope of work, Subcontractor firm's name, and reference the Subcontractor's proposal or letter of intent.

The Contractor shall provide copies of all pre and post contract correspondence between themselves and their representatives and all potential Subcontractors when requested by the Contracting Officer's Representative.

The Subcontracting Plan shall specifically address the Contractor's plan for design and engineering.

If any part of the Contractor's engineering is to be subcontracted, the Contractor shall also submit the Subcontractor's qualifications, the scope of work and the contract, purchase order, or letter of intent.

If the engineering is to be performed by the Contractor's hired labor, the plan shall make that specifically clear. The Contractor shall provide a statement of qualifications for any "in house" engineering personnel.

All persons employed as naval architects or marine engineers, either by the Contractor or by any Subcontractor, shall be professionally competent by virtue of education, training, experience or licensing.

The Subcontracting Plan shall be in "spread sheet" format and will be incorporated into the Material & Equipment Schedule of Clause H10.

Upon written approval of the Subcontracting Plan by the Contracting Officer's Representative, the Contractor is authorized to proceed to place the subcontracts listed on the plan.

H10 MATERIALS & EQUIPMENT SCHEDULE

After Notice To Proceed with Line Item 0001AB, ENGINEERING & SCHEDULING, the Contractor shall develop a schedule of all items, including major stock materials (excluding nuts, bolts, gaskets, consumables, etc.), to be used in the construction of the vessel. The schedule shall be prepared in "spread sheet" format and contain the following information for the vessel:

- Component/equipment
- Quantity
- Vendor name and address
- Make, model, and options
- Drawing references (if appropriate)
- Purchase Order or Contract Number
- Scheduled order date
- Actual order date
- Scheduled (promised) receipt at shipyard
- Actual receipt at shipyard

After submittal, review, revision and approval by the COR, the schedule shall be updated and submitted to the Government monthly. Final submission to MDC shall include priced copies of all purchase orders, purchase specifications and receipts.

Upon written approval of the schedule by the Contracting Officer's Representative, the Contractor is authorized to proceed with procurement of all items and materials in the schedule.

At any time during the contract, the COR may request and the Contractor shall furnish, correspondence, telephone conversation records, priced copies of purchase orders, purchase specifications and material receipts or other records between the Contractor and the various subcontractors.

H11 SUBMITTAL SCHEDULE

After receipt of Notice To Proceed with Line Item 0001AA, PLANNING, the Contractor shall develop a submittal schedule for all Contractor submittals required by the contract (Refer to Clause H02).

The schedule shall be in "spread sheet" format and contain the following minimum information for the vessel:

- Drawing number (if any)
- Name or title of submittal
- Scheduled submittal date(s)
- Actual submittal date(s)
- Submittal letter number
- Reply letter number
- Reply letter date

For drawings or items with repetitive submittals (monthly, etc.) the schedule must allow for drawing review iterations or repetitive submissions.

After review, subsequent revision and approval by the COR, the schedule will be updated and submitted with the monthly Progress Payment Request for the life of the contract.

H12 DRAWING INDEX

After Notice To Proceed with Line Item 0001AA, PLANNING, the Contractor shall prepare an index of all drawings to be prepared by the Contractor as part of this contract. The list will be subdivided into two parts.

The first part shall list all the drawings the Contractor intends or expects to prepare during the "ENGINEERING & SCHEDULING" phase of the contract. See Clause H13.

The second part shall list all As-Built drawings. The As-Built drawings shall consist of updated and corrected originals of all the drawings prepared by the Contractor (listed in the first part of this index) plus any standard drawings or details created by the Contractor during construction.

Both parts of this index shall be complete with drawing title, the Contractor's drawing number (if any) and scheduled submittal date.

After review, revision, and approval by the COR the index will be updated and submitted monthly to the Contracting Officer's Representative.

H13 ENGINEERING & DRAWINGS

A. ENGINEERING

The Contractor will perform engineering (prepare calculations, drawings, etc.) in order to:

- Develop the Final Design
- Obtain regulatory body approval
- Develop detailed piping and cable routings
- Develop detailed ducting routings
- Develop shop drawings
- Develop construction details
- Prepare complete bills of materials
- Obtain COR approval for NTP with Construction
- Complete As-Built drawings

All drawings and documents prepared by the Contractor or substantively modified by the Contractor shall be forwarded to the Marine Design Center for review, comment, and acceptance.

It is the responsibility of the Contractor to schedule submission of the listed drawings/documents to allow for review by MDC, without adversely affecting the construction schedule or submittals to regulatory bodies (refer to Clause H02).

B. DRAWINGS

All drawings shall be prepared in CADD form, and shall conform to the American National Standards Institute (ANSI) Standard Y14. Drawings shall be flat, folded to 81/2" x 11" size and trimmed to within 1/2" of the outer border. Drawing size shall be format A (horizontal or vertical) or D as defined by ANSI Y14.1. In no case will drawings of any other size or format be accepted. Title blocks shall conform to ANSI dimensions and shall be submitted to MDC for approval before use. Drawings of two or more sheets shall have follow-on sheets titled according to ANSI Y14.1 for continuation sheets and shall not be separately titled.

Three copies of each drawing, calculation, report, or document shall be submitted to MDC for review. Only if appropriate numbers of copies are submitted will one copy be returned to the Contractor showing the Government review action.

If requested by the COR, one copy of each drawing or document reviewed and stamped by ABS, along with its associated ABS comment letter shall be provided to the COR.

C. DESIGN OUTLINE

The "ENGINEERING & SCHEDULING" phase design effort to complete the Final Design shall include the preparation of drawings, calculations, and reports that address the topics listed on the following guidance index. Refer to Clause H03 for basic level of detail guidance for all vessel systems and refer to the specific clauses of Section C for any detailed requirements. It is acceptable to combine details and features on drawings.

REQUESTED DATA & DESIGN INFORMATION	FORMAT OF DELIVERABLE
TITLE SHEET	DRAWING
DRAWING INDEX *	DRAWING
LINES PLAN	DRAWING
WEIGHT ESTIMATE	REPORT
HYDROSTATIC PROPERTIES	REPORT
TANK CAPACITY (SOUNDING) TABLES	TABLES
INTACT & DAMAGE STABILITY VERTIFICATION	REPORT
DOCKING PLAN	DRAWING
NOISE STUDY	REPORT
RIGGING PLAN	DRAWING
OUTBOARD PROFILE	DRAWING
GENERAL ARRANGEMENTS	DRAWING
HOLD & MACHINERY ARRANGEMENTS	DRAWING

REQUESTED DATA & DESIGN INFORMATION	FORMAT OF DELIVERABLE
CONTROL ROOM ARRANGEMENTS	DRAWING
SCANTLINGS	DRAWING
PAINT SCHEDULE	DRAWING
DOORS, WINDOWS, HATCHES & MANHOLES	SCHEDULE
LIFESAVING & SAFETY EQUIPMENT	DRAWING
SPUDS	DRAWING
SPUDWELLS	DRAWING
SPUD HANDLING SYSTEM	DRAWING
FUEL OIL SYSTEM	DRAWING
LUBE OIL SYSTEM	DRAWING
WASTE OIL SYSTEM	DRAWING
OILY BILGE SYSTEM	DRAWING
COOLING WATER SYSTEM	DRAWING
RAW WATER SYSTEM	DRAWING
EXHAUST SYSTEMS	DRAWING
HYDRAULIC SYSTEM	DRAWING
POTABLE WATER SYSTEM	DRAWING
SANITARY & SEWAGE SYSTEM	DRAWING
FIXED FIRE EXTINGUISHING SYSTEM	DRAWING
FIRE DETECTION & ALARM SYSTEM	DRAWING
FIRE CONTROL PLAN *	DRAWING
HVAC SYSTEM	DRAWING
HEATING & COOLING LOAD CALCULATIONS	CALCULATIONS
GENERAL ALARM SYSTEM	DRAWING
AC SYSTEM LOAD ANALYSIS	DRAWING
DC SYSTEM LOAD ANALYSIS	DRAWING
FAULT CURRENT ANALYSIS	CALCULATIONS
CIRCUIT BREAKER COORDINATION STUDY	REPORT
ONE LINE DIAGRAM (AC)	DRAWING
ONE LINE DIAGRAM (DC)	DRAWING
VOLTAGE DROP ANALYSIS	REPORT
CABLE SCHEDULE	REPORT
SWITCHGEAR	DRAWING

* To be developed during the “Construct, Test & Deliver” phase of the Contract.

H14 "AS-BUILT" DRAWINGS

In order to provide a record of the "As-Built" vessel, the Contractor shall update the FINAL DESIGN drawings, calculations, reports, and documents to clearly show the construction, details and systems of the vessel at the time of its delivery.

All of the drawings, reports and documents shown on the Submittal Schedule required by Clause H11 and the Drawing Index required by Clause H12 will be updated and corrected to form an "As-Built" record of the vessel.

The "As-Built" materials for the vessel shall be delivered as follows:

a. Prior to Final Inspection, the Contractor shall submit one set of prints of the "As-Built" drawings for review and approval.

b. Prior to Provisional Acceptance, the Contractor shall provide the following:

- Three sets of black or blue line prints of all "As-Built" drawings.
- One set of high quality (original) Mylar reproducibles of all "As-Built" drawings.
- Two sets of electronic files of all calculations and reports. The files shall be provided on 4-3/4 650 MB 74 min digital compact disk (CD) in Adobe Acrobat "*.pdf" file format. Each set of calculations or complete report shall be a separate electronic file with a filename that identifies the contents of the report or calculations. Compression utilities such as PKZIP® may not be used.
- Two sets of electronic files of all CADD prepared drawings. The files shall be provided on 4-3/4 650 MB 74 min digital compact disk(CD) in AutoCAD 2000 drawing file format or higher. Each drawing sheet shall be a separate electronic file with a filename that identifies the type of drawing or the material contained on the drawing. Compression utilities such as PKZIP® may not be used.
- Two DVD's of the above listed CADD drawings, calculations, and reports. The files shall be in Tag Image File Format (*.tif) and produced as DVD-R.

c. Each complete set of files on CD's and DVD's shall be labeled, indexed in numerical order by filename furnished in protective plastic sleeves and on the CD cover sheet.

d. Files furnished on CD's and DVD's shall be encased in standard plastic jewel boxes. Slim line jewel cases will not be acceptable.

The Government shall have limited use of the drawings and documents listed on the drawing index for repair and maintenance purposes only.

H15 SUBSTITUTIONS

"Substitution" as used in this clause, is an administrative action, not resulting in a contract change of cost or time.

Prior to issuance of a NTP with "Construct, Test and Deliver," the Contractor shall prepare and submit a comprehensive list and analysis of any Contractor proposed substitutions of the equipment and materials required in the contract.

The Substitution List shall be limited to equipment and materials specifically required by the contract. Equipment and Materials where the Contractor has selection responsibility (i.e. "similar to") are not to be included in the list.

Each proposed substitution shall be accompanied with a detailed analysis and comparison of the equipment or materials specified and the equipment or materials proposed, including features, dimensions, performance characteristics, benefit to the Government, and the compelling reason why the substitution should be made. In the absence of compelling reasons for making the substitution, the contractor's proposal may be denied.

Should the substitution be accepted, the Contractor shall be responsible for integrating the substitution into the design at no increase in contract cost or no extension of contract completion. Such modifications to the design must be completed, submitted for approval, revised as necessary and accepted by the COR prior to issuing a NTP with Construct, Test and Deliver.

The Contractor bears ultimate responsibility for satisfactory performance of all systems impacted or affected by an accepted substitution as well as the operation of the completed vessel, as affected by the substitution.

Once a NTP with Construct, Test and Deliver has been issued, substitutions will not be considered.

H16 MANUFACTURER OR SUBCONTRACTOR DRAWINGS & MANUALS

For the vessel, the Contractor shall provide four complete sets of drawings and manuals for each piece of machinery and equipment provided by the Contractor; that clearly describe the operation, construction, maintenance, repair, adjustment, lubrication, parts lists and "trouble shooting" of every item of machinery and piece of equipment. This shall include Detailed Fabrication Drawings where they exist.

Manuals shall be in the English language with all dimensions in the foot-pound-second systems of units. Manuals shall be bound in hard covers of durable materials.

Manufacturer's or Subcontractor's drawings may be included in the manual but must be folded to page size.

Drawings not suitable for inclusion in the manuals must be considered as engineering and design drawings and shall be prepared and submitted in accordance with the requirements of Clause H13, Engineering & Drawings.

At least 30 days prior to Final Inspection of the vessel, one set of the manuals shall be submitted to the Contracting Officer's Representative for review, comment and/or approval. This set of manuals will be returned to the Contractor with approval or comments.

Final submittal of the manuals shall consist of three sets of the manuals and must be completed prior to Provisional Acceptance of the vessel.

If photocopies (Xerox or similar) of parts lists, text, diagrams, etc., are furnished, one of the sets shall be a "Master" and must be made up of all "original" sheets and be clearly identified as the "Master" copy. Photocopies will be clear with high black/white contrast, sharp lines, full sheet reproduction, and no background shadow or clutter.

Where catalog "cut-sheets" are provided, all information not pertinent to the equipment or machinery provided shall be obliterated.

H17 OPERATOR'S MANUAL

The Contractor shall prepare and furnish an Operator's Manual customized for the dredge, which is intended to be a guide to the operation, maintenance, and utilization of the various systems on the dredge and the dredge itself.

The manual shall be arranged such that an operator can get a quick overview and understanding of a system and its operation, with specific steps and guidelines to clearly affect system actuation, control and shutdown.

The manual shall also include specific maintenance instructions for each system, and item of equipment.

The manual shall contain simplified and reduced size arrangement and schematic and/or diagrammatic-on-arrangement drawings of each vessel system.

The manual shall be bound in hard cover binders of a durable material.

Three copies of the manual shall be provided prior to Final Acceptance of the dredge. One copy shall be the "Master" copy and shall contain the original typed or reproducible version of the manual. An electronic copy of the "Master" shall be provided.

H18 RECORD PHOTOGRAPHS

A. CONSTRUCTION PROGRESS PHOTOGRAPHS

The Contractor shall provide monthly photographs deliverable in digital format. The photographs shall document the construction progress, the launching, and tests and trials of the vessel.

The photographs shall be provided via e-mail. Photographs shall be JPG file format of at least SVGA Resolution, 24-bit color depth, and at a compression ratio no greater than 25% (75% Quality).

For the vessel, approximately 15 or 20 photographs shall be provided monthly. The quantity of photographs shall be commensurate with the level of production.

B. FINAL PHOTOGRAPHS

1. Digital Photography Requirements

For the vessel, a minimum of 50 different digital photograph interior shots showing all deckhouse and machinery spaces shall be provided by the Contractor. The interior shots shall be taken from different angles in each space to show the equipment arrangement and space layout. The digital photograph files for the vessel shall be provided on 4-3/4 650 MB 74 min digital compact disk (CD). Two complete sets of the photos shall be provided to the Government.

2. Color Film Photography Requirements

The Contractor shall furnish the services of a professional photographer to take regular color photographs of the completed vessel.

For the vessel, a minimum of 10 different exterior photographs, using color photograph film, shall be taken to include:

a. Profile view of each side
b. Profile view of each end
c. Profile views of the vessel corner
d. Plan or overhead view of the vessel

For the vessel, the Contractor shall provide one negative and ten prints for each of two exterior shots, which will be selected by the COR upon review of shipyard exterior photos. Color prints shall be 8-inch x 10-inch. (Total of 20 prints).

For the vessel, the COR shall select two shots from the exterior view photos, which shall be custom printed in 11 inches x 14 inches size, professionally mounted, double matted and framed under clear glass in suitable wooden frame. Two sets of each picture shall be furnished to the Contracting Officer's Representative (total of four matted and framed photos), for the dredge.

H19 GOVERNMENT PROPERTY

All Government-Furnished equipment and equipment for which the Government has made payment or partial payment shall be considered Government Property.

The Contractor shall accept all risk for Government property in his possession.

The Contractor shall maintain an inventory of all Government Property, update and submit the inventory monthly.

All Government Property shall be stored in enclosed, weather tight secure, warehouse buildings. Security shall consist of restricted access, locked and fenced storage. Warehouse buildings shall be heated above freezing and ventilated to prevent condensation or sweating.

H20 PROGRESS PAYMENT BASED ON PERCENTAGE OR STAGE OF COMPLETION

The Government shall pay the Contractor the contract price as provided in this contract.

The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets standards of quality established under the contract, as accepted by the Contracting Officer. If requested by the Contracting Officer, the Contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of work, in such detail as requested, to provide a basis for determining progress payments. In the preparation of estimates, the Contracting Officer may authorize payment for material delivered to the site and at locations other than the site may also be taken into consideration if---

- Consideration is specifically authorized by this contract; and
- The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

If the Contracting Officer finds that satisfactory progress was achieved during any period for which progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of fifteen percent (15%) of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all remaining withheld funds.

All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be considered as---

- Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or
- Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including co-insurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provision preceding shall not apply to that portion of progress payments attributed to bond premiums.

The Government shall pay the amount due the Contractor under this contract after---

- Completion and acceptance of all work; and
- Presentation of a properly executed voucher.

Notwithstanding any other provision of this contract, progress payments shall not exceed eighty percent (80%) on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes Clause, or funding and other administrative changes.

H21 FINAL COST PROPOSAL REVISIONS – DYNAMIC BIDDING EVENT (DBE)

A. GENERAL

This clause will only be used if negotiations are conducted with prospective Offerors. Should the Contracting Officer determine that it is in the Government's best interest to award without negotiations, this clause will not be used.

The Government will obtain final cost proposals from those Offerors that are in the Competitive Range via an on-line process described as a Dynamic Bidding Event (DBE). This process will be managed and administrated by FreeMarkets Inc., Pittsburgh, PA on behalf of the Government. FreeMarkets will establish a fair and dynamic online market and all participants shall be governed by a consistent set of rules.

The DBE will allow competitors to offer reduced pricing based on the availability of some knowledge of other offers, in real time. In this way, all Offerors will be in a better position to make decisions related to reduced pricing.

FreeMarket's role and responsibilities will be as follows:

- Draft Online Event Information and distribute to all Offerors within the Competitive Range.
- Answer all Offerors' questions relating to the online bidding software and the online bidding process. (FREEMARKET IS NOT AUTHORIZED TO ADDRESS ANY QUESTIONS RELATED TO THE SPECIFICATIONS OR THE PROCUREMENT IN GENERAL, JUST QUESTIONS RELATED TO THE MECHANICS OF THE BIDDING PROCESS).
- Train invited Offerors how to bid online using FreeMarket's BidWare® software.
- Provide Offerors event status updates as needed.
- Facilitate the real-time, online DBE.

B. FREEMARKET'S CONTACT – ONLINE BIDDING QUESTIONS

Mr. Keith Nasse
FreeMarkets, Inc.
FreeMarkerts Center
210 Sixth Avenue
Pittsburgh, PA 15222
USA

Phone: (412) 297-8936
FAX: (412) 297-8700

C. OFFEROR'S TIME, EXPENSE & BID PREPARATION

All time and expenses incurred by the Offerors in this tender process are the responsibility of the Offerors and will not be reimbursed by USACE. There is no additional cost for Offerors to participate in this online bidding event (no fee that Offerors must pay to FreeMarket). USACE is underwriting all costs associated with this online bidding process.

It is recommended that Offerors prepare in advance their starting bid, their bidding strategy and their lowest bid. Offerors will be permitted to submit an unlimited number of new (lower) bids into the marketplace in response to market competition while the event remains in an OPEN, EXTENDED or OVERTIME status.

Upon being evaluated as being in the Competitive Range, Offerors will be sent FreeMarkets online bidding technology (BidWare) that enables connection to FreeMarkets secure bidding servers. Offerors will be required to complete a half-hour of training with FreeMarkets on the use of the online bidding software. This telephone training includes a review of bidding formats, rules for the online marketplace and practice in a "mock" bidding event.

In order to participate in this online event, Offerors must agree to the Government's rules and procedures of the online marketplace as specified in FreeMarkets' *Offerors Agreement*. Offerors must complete and return this *Offerors Agreement* to the Government prior to the online bid. Offerors who have not returned a signed copy of the *Offerors Agreement* prior to the commencement of bidding will be denied access to the online bidding event.

D. FREEMARKETS BIDWARE TECHNOLOGY REQUIREMENTS

The following minimum computer hardware is required in order to participate in a FreeMarkets online bidding:

- A Pentium® class personal computer.
- A minimum of 64 megabytes (MB) of random access memory (RAM).
- 40 MB of available hard drive space.
- A direct Internet connection –or- a modem running at 28.8 kilobits per second or faster and a single-set analog phone line.

The following computer software is necessary to participate in a FreeMarkets online bidding:

- Microsoft® Windows® 95, Windows 98, Windows NT Workstation 4.0 (service pack 4 is recommended) or Windows 2000.
- Microsoft Internet Explorer 4.0 or later –or- Netscape Navigator 4.0.1 or later.

Free and included on FreeMarkets BidWare installation CD:

- Adobe® Acrobat Reader.
- Sun Microsystem's Java® Runtime Environment (JRE) version 1.3.
- Latest version of BidWare.

Offerors who are not able to access the required hardware or software indicated above should contact the FreeMarkets' contact to discuss surrogate bidding alternatives. Please note that Offerors will not be able to log into the bidding event from multiple locations. Offerors are given access to FreeMarkets events by User Name assigned to specific individuals. Strict adherence to this policy maintains the privacy and integrity of the online marketplace. No exceptions to this policy are permitted to allow viewing from multiple locations.

E. BID FORMAT & OFFEROR CONFIDENTIALITY

The bidding format used during the online bid will be provided at a later date. At no time before, during or after the online bidding event will an Offeror's identity be revealed to other participants in the market.

Once the competitive range is established by USACE, the Final Bid process-related parameters will be distributed.

F. FREEMARKETS ONLINE BID PROCESS ACTIVITIES

- Register as an Offeror at FreeMarkets' website, www.freemarkets.com, providing relevant contact and general company information. Please indicate if you are registering for CBE 9084 in the appropriate location. Upon completion of registration, participants will receive via e-mail, a User Name and password.

- Install the BidWare CD and test your connection. The User Name and Password obtained through registration will be needed to complete this step. Help testing your connection can be obtained by contacting FreeMarkets Product Support toll free at 1-877-303-3658. Offerors located outside the United States may call 001-412-434-5605.

- Participate in a FreeMarkets conference call detailing the online bidding process.

- Schedule a half-hour of online bidding training conducted by telephone with FreeMarkets. U.S. Offerors may schedule training by calling FreeMarkets Product Support.

- Sign and return the government Offerors Agreement to the attention of Mr. Keith Nasse at fax number (412) 297-8700.

- Complete online bidding training with FreeMarkets.

- Log-on and participate in the online Dynamic Bidding Event.

Details on the timing and scheduling of the above listed activities will be provided by future amendments to the RFP.

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SECTION I - Contract Clauses

52.202-1	Definitions	DEC 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	JUL 1995
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 1997
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-5	Material Requirements	AUG 2000
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Cost or Pricing Data	OCT 1997
52.215-11	Price Reduction for Defective Cost or Pricing Data--Modifications	OCT 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997
52.215-14	Integrity of Unit Prices	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	DEC 1998
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	OCT 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.217-7	Option For Increased Quantity-Separately Priced Line Item	MAR 1989
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-9 Alt II	Small Business Subcontracting Plan (Jan 2002) Alternate II	OCT 2001
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-19	Child Labor--Cooperation with Authorities and Remedies	DEC 2001
52.222-20	Walsh-Healy Public Contracts Act	DEC 1996
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era and Other Eligible Veterans	DEC 2001
52.223-6	Drug Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	OCT 2000
52.225-8	Duty-Free Entry	FEB 2000
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000
52.227-1	Authorization and Consent	JUL 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.227-3	Patent Indemnity	APR 1984

52.228-1	Bid Guarantee	SEP 1996
52.228-2	Additional Bond Security	OCT 1997
52.228-11	Pledges Of Assets	FEB 1992
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.228-16	Performance and Payment Bonds--Other Than Construction	JUL 2000
52.229-3	Federal, State And Local Taxes	JAN 1991
52.229-5	Taxes--Contracts Performed In U S Possessions Or Puerto Rico	APR 1984
52.232-1	Payments	APR 1984
52.232-8	Discounts For Prompt Payment	FEB 2002
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-11	Extras	APR 1984
52.232-17	Interest	JUN 1996
52.232-23	Assignment Of Claims	JAN 1986
52.232-25	Prompt Payment	FEB 2002
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.239-1	Privacy or Security Safeguards	AUG 1996
52.242-13	Bankruptcy	JUL 1995
52.242-15	Stop-Work Order	AUG 1989
52.242-17	Government Delay Of Work	APR 1984
52.243-1	Changes--Fixed Price	AUG 1987
52.245-1	Property Records	APR 1984
52.245-2	Government Property (Fixed Price Contracts)	DEC 1989
52.246-18 Alt IV	Warranty Of Supplies Of A Complex Nature (May 2001) - Alternate IV	APR 1984
52.246-24	Limitation Of Liability-High Value Items	FEB 1997
52.248-1	Value Engineering	FEB 2000
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	SEP 1996
52.249-8	Default (Fixed-Price Supply & Service)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.203-7002	Display Of DOD Hotline Poster	DEC 1991
252.204-7000	Disclosure Of Information	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Required Central Contractor Registration	NOV 2001
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.215-7000	Pricing Adjustments	DEC 1991
252.219-7003	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DOD Contracts)	APR 1996
252.223-7004	Drug Free Work Force	SEP 1988
252.225-7001	Buy American Act And Balance Of Payments Program	MAR 1998
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 1991

252.225-7009	Duty-Free Entry--Qualifying Country Supplies (End Products and Components)	AUG 2000
252.225-7010	Duty-Free Entry--Additional Provisions	AUG 2000
252.225-7012	Preference For Certain Domestic Commodities	APR 2002
252.225-7016	Restriction On Acquisition Of Ball and Roller Bearings	DEC 2000
252.225-7031	Secondary Arab Boycott Of Israel	JUN 1992
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
252.227-7033	Rights in Shop Drawings	APR 1966
252.231-7000	Supplemental Cost Principles	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

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52.202-1 DEFINITIONS (DEC 2001)

(a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.

(b) Commercial component means any component that is a commercial item.

(c) Commercial item means--

(1) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that--

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for--

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. “Minor” modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if--

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--

(i) Catalog price means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states

prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) Market prices means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) Contracting Officer means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(g) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(h) Except as otherwise provided in this contract, the term "subcontracts" includes, but is not limited to, purchase orders and changes and modifications to purchase orders under this contract.

(End of clause)

52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUL 1995)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed $100,000.

52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed $100,000.

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before 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 in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay 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 in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) 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 in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or

negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding $100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of clause)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

(a) Definitions. As used in this clause--

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

“Printed or copied double-sided” means printing or reproducing a document so that information is on both sides of a sheet of paper.

“Recovered material,” for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as “recovered fiber” and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls

or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)

(a) The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed $25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of clause)

52.211-5 MATERIAL REQUIREMENTS (AUG 2000)

(a) Definitions.

As used in this clause--

New means composed of previously unused components, whether manufactured from virgin material, recovered material in the form of raw material, or materials and by-products generated from, and reused within, an original manufacturing process; provided that the supplies meet contract requirements, including but not limited to, performance, reliability, and life expectancy.

Reconditioned means restored to the original normal operating condition by readjustments and material replacement.

Recovered material means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

Remanufactured means factory rebuilt to original specifications.

Virgin material means--

(1) Previously unused raw material, including previously unused copper, aluminum, lead, zinc, iron, other metal or metal ore; or

(2) Any undeveloped resource that is, or with new technology will become, a source of raw materials.

(b) Unless this contract otherwise requires virgin material or supplies composed of or manufactured from virgin material, the Contractor shall provide supplies that are new, reconditioned, or remanufactured, as defined in this clause.

(c) A proposal to provide unused former Government surplus property shall include a complete description of the material, the quantity, the name of the Government agency from which acquired, and the date of acquisition.

(d) A proposal to provide used, reconditioned, or remanufactured supplies shall include a detailed description of such supplies and shall be submitted to the Contracting Officer for approval.

(e) Used, reconditioned, or remanufactured supplies, or unused former Government surplus property, may be used in contract performance if the Contractor has proposed the use of such supplies, and the Contracting Officer has authorized their use.

(End of clause)

52.215-2 AUDIT AND RECORDS--NEGOTIATION (JUN 1999)

(a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Examination of costs. If this is a cost-reimbursement, incentive, time-and-materials, labor-hour, or price redeterminable contract, or any combination of these, the Contractor shall maintain and the Contracting Officer, or an authorized representative of the Contracting Officer, shall have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination shall include inspection at all reasonable times of the Contractor's plants, or parts of them, engaged in performing the contract.

(c) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with any pricing action relating to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

(1) The proposal for the contract, subcontract, or modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the contract, subcontract, or modification; or

(4) Performance of the contract, subcontract or modification.

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

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Reports. If the Contractor is required to furnish cost, funding, or performance reports, the Contracting Officer or an authorized representative of the Contracting Officer shall have the right to examine and audit the supporting records and materials, for the purpose of evaluating (1) the effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports and (2) the data reported.

(f) Availability. The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs (a), (b), (c), (d), and (e) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in Subpart 4.7, Contractor Records Retention, of the Federal Acquisition Regulation (FAR), or for any longer period required by statute or by other clauses of this contract. In addition--

(1) If this contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement; and

(2) The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

(g) The Contractor shall insert a clause containing all the terms of this clause, including this paragraph (g), in all subcontracts under this contract that exceed the simplified acquisition threshold, and--

(1) That are cost-reimbursement, incentive, time-and-materials, labor-hour, or price-redeterminable type or any combination of these;

(2) For which cost or pricing data are required; or

(3) That require the subcontractor to furnish reports as discussed in paragraph (e) of this clause.

The clause may be altered only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime contract.

(End of clause)

52.215-8 ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT (OCT 1997)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order:

(a) The Schedule (excluding the specifications).

(b) Representations and other instructions.

(c) Contract clauses.

(d) Other documents, exhibits, and attachments.

(e) The specifications.

(End of clause)

52.215-10 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (OCT 1997)

(a) If any price, including profit or fee, negotiated in connection with this contract, or any cost reimbursable under this contract, was increased by any significant amount because--

(1) The Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data;

(2) A subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data; or

(3) Any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction.

(b) Any reduction in the contract price under paragraph (a) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which--

(1) The actual subcontract; or

(2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(c)(1) If the Contracting Officer determines under paragraph (a) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2)(i) Except as prohibited by subdivision (c)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the “as of” date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data were known by the Contractor to be understated before the “as of” date specified on its Certificate of Current Cost or Pricing Data; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the “as of” date specified on its Certificate of Current Cost or Pricing Data.

(d) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

(End of clause)

52.215-11 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, except that this clause does not apply to any modification if an exception under FAR 15.403-1 applies.

(b) If any price, including profit or fee, negotiated in connection with any modification under this clause, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) of this clause.

(c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which--

(1) The actual subcontract; or

(2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(d)(1) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2)(i) Except as prohibited by subdivision (d)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the “as of” date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data were known by the Contractor to be understated before the “as of” date specified on its Certificate of Current Cost or Pricing Data; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the “as of” date specified on its Certificate of Current Cost or Pricing Data.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

(End of clause)

52.215-12 SUBCONTRACTOR COST OR PRICING DATA (OCT 1997)

(a) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(b) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (a) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(c) In each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4, when entered into, the Contractor shall insert either--

(1) The substance of this clause, including this paragraph (c), if paragraph (a) of this clause requires submission of cost or pricing data for the subcontract; or

(2) The substance of the clause at FAR 52.215-13, Subcontractor Cost or Pricing Data--Modifications.

52.215-14 INTEGRITY OF UNIT PRICES (OCT 1997)

(a) Any proposal submitted for the negotiation of prices for items of supplies shall distribute costs within contracts on a basis that ensures that unit prices are in proportion to the items' base cost (e.g., manufacturing or acquisition costs). Any method of distributing costs to line items that distorts unit prices shall not be used. For example, distributing costs equally among line items is not acceptable except when there is little or no variation in base cost. Nothing in this paragraph requires submission of cost or pricing data not otherwise required by law or regulation.

(b) When requested by the Contracting Officer, the Offeror/Contractor shall also identify those supplies that it will not manufacture or to which it will not contribute significant value.

The Contractor shall insert the substance of this clause, less paragraph (b), in all subcontracts for other than: acquisitions at or below the simplified acquisition threshold in FAR Part 2; construction or architect-engineer services under FAR Part 36; utility services under FAR Part 41; services where supplies are not required; commercial items; and petroleum products.

(End of clause)

52.215-15 PENSION ADJUSTMENTS AND ASSET REVERSIONS (DEC 1998)

(a) The Contractor shall promptly notify the Contracting Officer in writing when it determines that it will terminate a defined-benefit pension plan or otherwise recapture such pension fund assets.

(b) For segment closings, pension plan terminations, or curtailment of benefits, the adjustment amount shall be the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12) for contracts and subcontracts that are subject to Cost Accounting Standards (CAS) Board rules and regulations (48 CFR Chapter 99). For contracts and subcontracts that are not subject to CAS, the adjustment amount shall be the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12), except the numerator of the fraction at 48 CFR 9904.413-50(c)(12)(vi) shall be the sum of the pension plan costs allocated to all non-CAS-covered contracts and subcontracts that are subject to Federal Acquisition Regulation (FAR) Subpart 31.2 or for which cost or pricing data were submitted.

(c) For all other situations where assets revert to the Contractor, or such assets are constructively received by it for any reason, the Contractor shall, at the Government's option, make a refund or give a credit to the Government for its equitable share of the gross amount withdrawn. The Government's equitable share shall reflect the Government's

participation in pension costs through those contracts for which cost or pricing data were submitted or that are subject to FAR Subpart 31.2.

(d) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(g).

(End of clause)

52.215-18 REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS (OCT 1997)

The Contractor shall promptly notify the Contracting Officer in writing when it determines that it will terminate or reduce a PRB plan. If PRB fund assets revert, or inure, to the Contractor or are constructively received by it under a plan termination or otherwise, the Contractor shall make a refund or give a credit to the Government for its equitable share as required by FAR 31.205-6(o)(6). The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirements of FAR 15.408(j).

(End of clause)

52.215-21 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable--

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Information on modifications of contracts or subcontracts for commercial items. (A) If--

(1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition or prices set by law or regulation, or was a contract or subcontract for the acquisition of a commercial item; and

(2) The modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the reasonableness of the price of the modification. Such information may include--

(1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to

the proposed quantities.

(2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation , access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of clause)

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 180 calendar days from NTP of Line Item 0001AA. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

Definitions. As used in this contract--

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

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 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 small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern means a small business concern that represents, as part of its offer that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, 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); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

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.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002)--ALTERNATE II (OCT 2001).

(a) This clause does not apply to small business concerns.

(b) Definitions. As used in this clause--

Commercial item means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

Commercial plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

Individual contract plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

Master plan means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

Subcontract means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) Proposals submitted in response to this solicitation shall include a subcontracting plan that separately addresses subcontracting with small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate a subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of--

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to HUBZone small business concerns;

(v) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vi) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to--

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror in included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, HUBZone small business, small disadvantaged business and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled ``Utilization of Small Business Concerns'' in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of $500,000 ($1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will--

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated)

(i) Source lists (e.g., PRO-Net), guides, and other data that identify small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $100,000, indicating--

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether HUBZone small business concerns were solicited and, if not, why not;

(D) Whether small disadvantaged business concerns were solicited and, if not, why not;

(E) Whether women-owned small business concerns were solicited and, if not, why not; and

(F) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact--

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through--

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all ``make-or-buy'' decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owner small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided--
(1) the master plan has been approved, (2) the offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer, and (3) goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled "Utilization Of Small Business Concerns," or (2) an approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) Standard Form 294, Subcontracting Report for Individual Contracts. This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) Standard Form 295, Summary Subcontract Report. This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must

report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

52.219-16 LIQUIDATED DAMAGES-SUBCONTRACTING PLAN (JAN 1999)

(a) Failure to make a good faith effort to comply with the subcontracting plan, as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion or, in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled “Small Business Subcontracting Plan,” the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

(End of clause)

52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

(End of clause)

52.222-19 CHILD LABOR--COOPERATION WITH AUTHORITIES AND REMEDIES (DEC 2001)

(a) Applicability. This clause does not apply to the extent that the Contractor is supplying end products mined, produced, or manufactured in--

(1) Canada, and the anticipated value of the acquisition is $25,000 or more;

(2) Israel, and the anticipated value of the acquisition is $50,000 or more;

(3) Mexico, and the anticipated value of the acquisition is $54,372 or more; or

(4) Aruba, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, Ireland, Italy, Japan, Korea, Liechtenstein, Luxembourg, Netherlands, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, or the United Kingdom and the anticipated value of the acquisition is $177,000 or more.

(b) Cooperation with Authorities. To enforce the laws prohibiting the manufacture or importation of products mined, produced, or manufactured by forced or indentured child labor, authorized officials may need to conduct investigations to determine whether forced or indentured child labor was used to mine, produce, or manufacture any product furnished under this contract. If the solicitation includes the provision 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products, or the equivalent at 2.212-3(i), the Contractor agrees to cooperate fully with authorized officials of the contracting agency, the Department of the Treasury, or the Department of Justice by providing reasonable access to records, documents, persons, or premises upon reasonable request by the authorized officials.

(c) Violations. The Government may impose remedies set forth in paragraph (d) for the following violations:

(1) The Contractor has submitted a false certification regarding knowledge of the use of forced or indentured child labor for listed end products.

(2) The Contractor has failed to cooperate, if required, in accordance with paragraph (b) of this clause, with an investigation of the use of forced or indentured child labor by an Inspector General, Attorney General, or the Secretary of the Treasury.

(3) The Contractor uses forced or indentured child labor in its mining, production, or manufacturing processes.

(4) The Contractor has furnished under the contract end products or components that have been mined, produced, or manufactured wholly or in part by forced or indentured child labor. (The Government will not pursue remedies at paragraph (d)(2) or paragraph (d)(3) of this clause unless sufficient evidence indicates that the Contractor knew of the violation.)

(d) Remedies. (1) The Contracting Officer may terminate the contract.

(2) The suspending official may suspend the Contractor in accordance with procedures in FAR Subpart 9.4.

(3) The debarring official may debar the Contractor for a period not to exceed 3 years in accordance with the procedures in FAR Subpart 9.4.

(End of clause)

52.222-20 WALSH-HEALEY PUBLIC CONTRACTS ACT (DEC 1996)

If this contract is for the manufacture or furnishing of materials, supplies, articles or equipment in an amount that exceeds or may exceed $10,000, and is subject to the Walsh-Healey Public Contracts Act, as amended (41 U.S.C. 35-45), the following terms and conditions apply:

(a) All stipulations required by the Act and regulations issued by the Secretary of Labor (41 CFR Chapter 50) are

incorporated by reference. These stipulations are subject to all applicable rulings and interpretations of the Secretary of Labor that are now, or may hereafter, be in effect.

(b) All employees whose work relates to this contract shall be paid not less than the minimum wage prescribed by regulations issued by the Secretary of Labor (41 CFR 50-202.2). Learners, student learners, apprentices, and handicapped workers may be employed at less than the prescribed minimum wage (see 41 CFR 50-202.3) to the same extent that such employment is permitted under Section 14 of the Fair Labor Standards Act (41 U.S.C. 40).

(End of clause)

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

(a) Segregated facilities, as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

52.222-26 EQUAL OPPORTUNITY (APR 2002)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of $10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

52.222-35 AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (APR 1998)

(a)) Definitions. As used in this clause--

All employment openings includes all positions except executive and top management, those positions that will be filled from within the contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment.

Appropriate office of the State employment service system means the local office of the Federal-State national system of public employment offices with assigned responsibility to serve the area where the employment opening is to be filled, including the District of Columbia, Guam, the Commonwealth of Puerto Rico, and the Virgin Islands.

Positions that will be filled from within the Contractor's organization means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings that the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days, any part of which occurred between August 5, 1964, and May 7, 1975, and was discharged or released therefrom with other than a dishonorable discharge; or

(2) Was discharged or released from active duty for a service-connected disability if any part of such active duty was performed between August 5, 1964, and May 7, 1975.

(b) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against the individual because the individual is a disabled veteran or a veteran of the Vietnam era. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans' status in all employment practices such as--

(i) Employment;

(ii) Upgrading;

(iii) Demotion or transfer;

(iv) Recruitment;

(v) Advertising;

(vi) Layoff or termination;

(vii) Rates of pay or other forms of compensation; and

(viii) Selection for training, including apprenticeship.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended.

(c) Listing openings. (1) The Contractor agrees to list all employment openings existing at contract award or occurring during contract performance, at an appropriate office of the State employment service system in the locality where the opening occurs. These openings include those occurring at any Contractor facility, including one not connected with performing this contract. An independent corporate affiliate is exempt from this requirement.

(2) State and local government agencies holding Federal contracts of $10,000 or more shall also list all their employment openings with the appropriate office of the State employment service.

(3) The listing of employment openings with the State employment service system is required at least concurrently with using any other recruitment source or effort and involves the obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(4) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State employment service system, in each State where it has establishments, of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State system, it need not advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, and the Virgin Islands.

(e) Postings. (1) The Contractor agrees to post employment notices stating (i) the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era, and (ii) the rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. They shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary), and provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of the Act, and is committed to take affirmative action to employ, and advance in employment, qualified disabled veterans and veterans of the Vietnam Era.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(g) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of $10,000 or more unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;

(iii) Rates of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor, including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings. (1) The Contractor agrees to post employment notices stating--

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of $10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1999)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of disabled veterans and the number of veterans of the Vietnam era in the workforce of the contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of that total, the number of disabled veterans, and the number of veterans of the Vietnam era.

(b) The above items shall be reported by completing the form entitled "Federal Contractor Veterans' Employment Report VETS-100."

(c) Reports shall be submitted no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date: (1) As of the end of any pay period during the period January through March 1st of the year the report is due, or (2) as of December 31, if the contractor has previous written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The count of veterans reported according to paragraph (a) of this clause shall be based on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all disabled veterans and veterans of the Vietnam era who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that the information is voluntarily provided; that the information will be kept confidential; that disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and that the information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of $10,000 or more unless exempted by rules, regulations, or orders of the Secretary.

(End of clause)

52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

(a) Definitions. As used in this clause --

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to deter- mine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be

taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) though (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C.

13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor owned or operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--

(1) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

(2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

(3) The facility does not meet the reporting thresholds of toxic chemicals established under of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

(4) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

(5) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed $100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding $100,000 (including all options), the substance of this clause, except this paragraph (e).

(End of clause)

52.225-8 DUTY-FREE ENTRY (FEB 2000)

(a) Definition. Customs territory of the United States means the States, the District of Columbia, and Puerto Rico.

(b) Except as otherwise approved by the Contracting Officer, the Contractor shall not include in the contract price any amount for duties on supplies specifically identified in the Schedule to be accorded duty-free entry.

(c) Except as provided in paragraph (d) of this clause or elsewhere in this contract, the following procedures apply to supplies not identified in the Schedule to be accorded duty-free entry:

(1) The Contractor shall notify the Contracting Officer in writing of any purchase of foreign supplies (including, without limitation, raw materials, components, and intermediate assemblies) in excess of $10,000 that are to be imported into the customs territory of the United States for delivery to the Government under this contract, either as end products or for incorporation into end products. The Contractor shall furnish the notice to the Contracting Officer at least 20 calendar days before the importation. The notice shall identify the--

(i) Foreign supplies;

(ii) Estimated amount of duty; and

(iii) Country of origin.

(2) The Contracting Officer will determine whether any of these supplies should be accorded duty-free entry and will notify the Contractor within 10 calendar days after receipt of the Contractor's notification.

(3) Except as otherwise approved by the Contracting Officer, the contract price shall be reduced by (or the allowable cost shall not include) the amount of duty that would be payable if the supplies were not entered duty-free.

(d) The Contractor is not required to provide the notification under paragraph (c) of this clause for purchases of foreign supplies if--

(1) The supplies are identical in nature to items purchased by the Contractor or any subcontractor in connection with its commercial business; and

(2) Segregation of these supplies to ensure use only on Government contracts containing duty-free entry provisions is not economical or feasible.

(e) The Contractor shall claim duty-free entry only for supplies to be delivered to the Government under this contract, either as end products or incorporated into end products, and shall pay duty on supplies, or any portion of them, other than scrap, salvage, or competitive sale authorized by the Contracting Officer, diverted to nongovernmental use.

(f) The Government will execute any required duty-free entry certificates for supplies to be accorded duty-free entry and will assist the Contractor in obtaining duty-free entry for these supplies.

(g) Shipping documents for supplies to be accorded duty-free entry shall consign the shipments to the contracting agency in care of the Contractor and shall include the--

(1) Delivery address of the Contractor (or contracting agency, if appropriate);

(2) Government prime contract number;

(3) Identification of carrier;

(4) Notation “UNITED STATES GOVERNMENT, _____ [agency], _____ Duty-free entry to be claimed pursuant to Item No(s) _____ [from Tariff Schedules] _____, Harmonized Tariff Schedules of the United States. Upon arrival of shipment at port of entry, District Director of Customs, please release shipment under 19 CFR part 142 and notify [cognizant contract administration office] for execution of Customs Forms 7501 and 7501-A and any required duty-free entry certificates.”;

(5) Gross weight in pounds (if freight is based on space tonnage, state cubic feet in addition to gross shipping weight); and

(6) Estimated value in United States dollars.

(h) The Contractor shall instruct the foreign supplier to--

(1) Consign the shipment as specified in paragraph (g) of this clause;

(2) Mark all packages with the words “UNITED STATES GOVERNMENT” and the title of the contracting agency; and

(3) Include with the shipment at least two copies of the bill of lading (or other shipping document) for use by the District Director of Customs at the port of entry.

(i) The Contractor shall provide written notice to the cognizant contract administration office immediately after notification by the Contracting Officer that duty-free entry will be accorded foreign supplies or, for duty-free supplies identified in the Schedule, upon award by the Contractor to the overseas supplier. The notice shall identify the--

(1) Foreign supplies;

(2) Country of origin;

(3) Contract number; and

(4) Scheduled delivery date(s).

(j) The Contractor shall include the substance of this clause in any subcontract if--

(1) Supplies identified in the Schedule to be accorded duty-free entry will be imported into the customs territory of the United States; or

(2) Other foreign supplies in excess of $10,000 may be imported into the customs territory of the United States.

(End of clause)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUL 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUN 2000)

(a) Definitions. As used in this clause:

"Indian" means any person who is a member of any Indian tribe, band, group, pueblo or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any ``Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutea not less than 51 percent of the enterprise.

"Indian tribe" means any Indian tribe, band, group, pueblo or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1542(c).

"Interested party" means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs (BIA), Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street, NW., MS 2626-MIB, Washington, DC 20240-4000.

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of a cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee prime contract.

(iii) The target cost and ceiling price of a fixed-price incentive prime contract.

(iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

(End of clause)

52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

(End of clause)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101.to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause)

52.227-3 PATENT INDEMNITY (APR 1984)

(a) The Contractor shall indemnify the Government and its officers, agents, and employees against liability,

including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property (hereinafter referred to as "construction work") under this contract, or out of the use or disposal by or for the account of the Government of such supplies or construction work.

(b) This indemnity shall not apply unless the Contractor shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in its defense. Further, this indemnity shall not apply to (1) an infringement resulting from compliance with specific written instructions of the Contracting Officer directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner of performance of the contract not normally used by the Contractor, (2) an infringement resulting from addition to or change in supplies or components furnished or construction work performed that was made subsequent to delivery or performance, or (3) a claimed infringement that is unreasonably settled without the consent of the Contractor, unless required by final decree of a court of competent jurisdiction.

(End of clause)

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be 20 percent of the bid price or $3,000,000.00, whichever is less.-

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of clause)

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (OCT 1995)

In accordance with Section 806(a)(3) of Pub. L. 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requester.

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) “Irrevocable letter of credit” (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than $25 million in the past year, ILCs over $5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than $25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

_____

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States $_____. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _____, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

_____

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

_____
[Confirming Financial Institution's Letterhead or Name and Address]

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____/U.S. $_____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

_____

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

_____

[City, State]

(Date) _____

[Name and address of financial institution]

Pay to the order of _____ [Beneficiary Agency] _____ the sum of United States $_____. This draft is drawn under Irrevocable Letter of Credit No. _____.

_____

[Beneficiary Agency]

By: _____

(End of clause)

52.228-16 PERFORMANCE AND PAYMENT BONDS--OTHER THAN CONSTRUCTION (JUL 2000)

(a) Definitions. As used in this clause--

Original contract price means the award price of the contract or, for requirements contracts, the price payable for the estimated quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) The Contractor shall furnish a performance bond (Standard Form 1418) for the protection of the Government in an amount equal to 100 percent of the original contract price and a payment bond (Standard Form 1416) in an amount equal to 100 percent of the original contract price.

(c) The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within 10 days, but in any event, before starting work.

(d) The Government may require additional performance and payment bond protection if the contract price is increased. The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bonds or to obtain additional bonds.

(e) The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register, or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW., 2nd Floor, West Wing, Washington, DC 20227.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (JAN 1991)

(a) "Contract date," as used in this clause, means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties," as used in this clause, means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax," as used in this clause, means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.
"After-relieved Federal tax," as used in this clause, means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund

or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

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

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds $250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

52.229-5 TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO (APR 1984)

The term "local taxes," as used in the Federal, State, and local taxes clause of this contract, includes taxes imposed by a possession of the United States or by Puerto Rico.

(End of clause)

52.232-1 PAYMENTS (APR 1984)

The Government shall pay the Contractor, upon the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified in this contract, payment shall be made on partial deliveries accepted by the Government if--

(a) The amount due on the deliveries warrants it; or

(b) The Contractor requests it and the amount due on the deliveries is at least $1,000 or 50 percent of the total contract price.

(End of clause)

52.232-8 DISCOUNTS FOR PROMPT PAYMENT (FEB 2002)

(a) Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the offeror. As an alternative to offering a discount for prompt payment in conjunction with the offer, offerors awarded contracts may include discounts for prompt payment on individual invoices.

(b) In connection with any discount offered for prompt payment, time shall be computed from the date of the invoice. If the Contractor has not placed a date on the invoice, the due date shall be calculated from the date the designated billing office receives a proper invoice, provided the agency annotates such invoice with the date of receipt at the time of receipt. For the purpose of computing the discount earned, payment shall be considered to have been made on the date that appears on the payment check or, for an electronic funds transfer, the specified payment date. When the discount date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day.

(End of clause)

52.232-9 LIMITATION ON WITHHOLDING OF PAYMENTS (APR 1984)

If more than one clause or Schedule term of this contract authorizes the temporary withholding of amounts otherwise payable to the Contractor for supplies delivered or services performed, the total of the amounts withheld at any one time shall not exceed the greatest amount that may be withheld under any one clause or Schedule term at that time; provided, that this limitation shall not apply to--

(a) Withholdings pursuant to any clause relating to wages or hours of employees;

(b) Withholdings not specifically provided for by this contract;

(c) The recovery of overpayments; and

(d) Any other withholding for which the Contracting Officer determines that this limitation is inappropriate.

(End of clause)

52.232-11 EXTRAS (APR 1984)

Except as otherwise provided in this contract, no payment for extras shall be made unless such extras and the price therefore have been authorized in writing by the Contracting Officer.

(End of clause)

52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

52.232-25 PROMPT PAYMENT (FEB 2002)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer (EFT). Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Due date. (i) Except as indicated in paragraphs (a)(2) and (c) of this clause, the due date for making invoice payments by the designated payment office is the later of
the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(ii) of this clause).

(B) The 30th day after Government acceptance of supplies delivered or services performed. For a final invoice, when the payment amount is subject to contract settlement actions, acceptance is deemed to occur on the effective date of the contract settlement.

(ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Certain food products and other payments. (i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are--

(A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.

(B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.

C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.

(ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.

(3) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(3)(i) through (a)(3)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils), with the reasons why it is not a proper invoice. The Government will take into account untimely notification when computing any interest penalty owed the Contractor.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of the mailing or transmission.)

(iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).

(iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.

(v) Shipping and payment terms (e.g., shipment number and date of shipment, discount for prompt payment terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) 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 (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), 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.

(x) Any other information or documentation required by the contract (e.g., evidence of shipment).

(4) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(5) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance is deemed to occur constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivers the supplies or performs the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. If actual acceptance occurs within the constructive acceptance period, the Government will base the determination of an interest penalty on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(6) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(7) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(7)(ii) of this clause, postmarked not later than 40 days after the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest is due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).

(b) Contract financing payment. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Fast payment procedure due dates. If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.

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

(End of clause)

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Contractor EFT arrangements. If the Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a

proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(j) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

(End of Clause)

52.233-1 DISPUTES. (JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding $100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to

certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative disput resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and

act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

52.239-1 PRIVACY OR SECURITY SAFEGUARDS (AUG 1996)

(a) The Contractor shall not publish or disclose in any manner, without the Contracting Officer's written consent, the details of any safeguards either designed or developed by the Contractor under this contract or otherwise provided by the Government.-

(b) To the extent required to carry out a program of inspection to safeguard against threats and hazards to the security, integrity, and confidentiality of Government data, the Contractor shall afford the Government access to the Contractor's facilities, installations, technical capabilities, operations, documentation, records, and databases.-

(c) If new or unanticipated threats or hazards are discovered by either the Government or the Contractor, or if existing safeguards have ceased to function, the discoverer shall immediately bring the situation to the attention of the other party.

(End of clause)

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-15 STOP-WORK ORDER (AUG 1989)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the
incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(End of clause)

52.242-17 GOVERNMENT DELAY OF WORK (APR 1984)

(a) If the performance of all or any part of the work of this contract is delayed or interrupted (1) by an act of the Contracting Officer in the administration of this contract that is not expressly or impliedly authorized by this contract, or (2) by a failure of the Contracting Officer to act within the time specified in this contract, or within a reasonable time if not specified, an adjustment (excluding profit) shall be made for any increase in the cost of performance of this contract caused by the delay or interruption and the contract shall be modified in writing accordingly. Adjustment shall also be made in the delivery or performance dates and any other contractual term or condition affected by the delay or interruption. However, no adjustment shall be made under this clause for any delay or interruption to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an adjustment is provided or excluded under any other term or condition of this contract.

(b) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved, and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the delay or interruption, but not later than the day of final payment under the contract.

(End of clause)

52.243-1 CHANGES--FIXED-PRICE (APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.

(2) Method of shipment or packing.

(3) Place of delivery.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(End of clause)

52.245-1 PROPERTY RECORDS (APR 1984)

The Government shall maintain the Government's official property records in connection with Government property under this contract. The Government Property clause is hereby modified by deleting the requirement for the Contractor to maintain such records.

(End of clause)

52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989)

(a) Government-furnished property. (1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) Changes in Government-furnished property. (1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any--

(i) Decrease or substitution in this property pursuant to subparagraph (b)(1) of this clause; or

(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) Title in Government property. (1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract--

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon--

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) Use of Government property. The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) Property administration. (1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) Access. The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) Risk of loss. Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) Equitable adjustment. When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for--

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) Final accounting and disposition of Government property. Upon completing this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property (including any resulting scrap) not consumed in performing this contract or delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as the Contracting Officer directs.

(j) Abandonment and restoration of Contractor's premises. Unless otherwise provided herein, the Government--

(1) May abandon any Government property in place, at which time all obligations of the Government regarding such abandoned property shall cease; and

(2) Has no obligation to restore or rehabilitate the Contractor's premises under any circumstances (e.g., abandonment, disposition upon completion of need, or upon contract completion). However, if the Government-furnished property (listed in the Schedule or specifications) is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) Communications. All communications under this clause shall be in writing.

(l) Overseas contracts. If this contract is to be performed outside of the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

52.246-18 WARRANTY OF SUPPLIES OF A COMPLEX NATURE (MAY 2001) - ALTERNATE IV (APR 1984)

(e) Definitions. As used in this clause--

Acceptance, means the act of an authorized representative of the Government by which the Government assumes for itself, or as an agent of another, ownership of existing and identified supplies, or approves specific services rendered, as partial or complete performance of the contract.

Supplies, means the end items furnished by the Contractor and related services required under this contract. The word does not include "data."

(b) Contractor's obligations. (1) The Contractor warrants that for 365 calendar days after final acceptance all supplies furnished under this contract will be free from defects in material and workmanship and will conform with all requirements of this contract; provided, however, that with respect to Government-furnished property, the Contractor's warranty shall extend only to its proper installation, unless the Contractor performs some modification or other work on the property, in which case the Contractor's warranty shall extend to the modification or other work.

(2) Any supplies or parts thereof corrected or furnished in replacement shall be subject to the conditions of this clause to the same extent as supplies initially delivered. This warranty shall be equal in duration to that set forth in paragraph (b)(1) of this clause and shall run from the date of delivery of the corrected or replaced supplies.

(3) The Contractor shall not be obligated to correct or replace supplies if the facilities, tooling, drawings, or other equipment or supplies necessary to accomplish the correction or replacement have been made unavailable to the Contractor by action of the Government. In the event that correction or replacement has been directed, the Contractor shall promptly notify the Contracting Officer, in writing, of the nonavailability.

(4) The Contractor shall also prepare and furnish to the Government data and reports applicable to any correction required (including revision and updating of all affected data called for under this contract) at no increase in the contract price.

(5) When supplies are returned to the Contractor, the Contractor shall bear the transportation costs from the place of delivery specified in the contract (irrespective of the f.o.b. point or the point of acceptance) to the Contractor's plant and return.

(6) All implied warranties of merchantability and "fitness for a particular purpose" are excluded from any obligation contained in this contract.

(c) Remedies available to the Government. (1) In the event of a breach of the Contractor's warranty in paragraph (b)(1) of this clause, the Government may, at no increase in contract price--

(i) Require the Contractor, at the place of delivery specified in the contract (irrespective of the f.o.b. point or the point of acceptance) or at the Contractor's plant, to repair or replace, at the Contractor's election, defective or nonconforming supplies; or

(ii) Require the Contractor to furnish at the Contractor's plant the materials or parts and installation instructions

required to successfully accomplish the correction.

(2) If the Contracting Officer does not require correction or replacement of defective or nonconforming supplies or the Contractor is not obligated to correct or replace under paragraph (b)(3) of this clause, the Government shall be entitled to an equitable reduction in the contract price.

(3) The Contracting Officer shall notify the Contractor in writing of any breach of the warranty in paragraph (b) of this clause within 14 calendar days after discovery of the defect The Contractor shall submit to the Contracting Officer a written recommendation within 7 as to the corrective action required to remedy the breach. After the notice of breach, but not later than 10 days after receipt of the Contractor's recommendation for corrective action, the Contracting Officer may, in writing, direct correction or replacement as in paragraph (c)(1) of this clause, and the Contractor shall, notwithstanding any disagreement regarding the existence of a breach of warranty, comply with this direction. If it is later determined that the Contractor did not breach the warranty in paragraph (b)(1) of this clause, the contract price will be equitably adjusted.

(4) If supplies are corrected or replaced, the period for notification of a breach of the Contractor's warranty in paragraph (c)(3) of this clause shall be 365 calendar days from the furnishing or return by the Contractor to the Government of the corrected or replaced supplies or parts thereof, or, if correction or replacement is effected by the Contractor at a Government or other activity, for 365 calendar days thereafter.

(5) The rights and remedies of the Government provided in this clause are in addition to and do not limit any rights afforded to the Government by any other clause of the contract.

(6) The Contractor shall be liable for the reasonable costs of disassembly and/or reassembly of larger items when it is necessary to remove the supplies to be inspected and/or returned for correction or replacement.

52.246-24 LIMITATION OF LIABILITY HIGH-VALUE ITEMS (FEB 1997)

(a) Except as provided in paragraphs (b) through (e) below, and notwithstanding any other provision of this contract, the Contractor shall not be liable for loss of or damage to property of the Government (including the supplies delivered under this contract) that (1) occurs after Government acceptance of the supplies delivered under this contract, and (2) results from any defects or deficiencies in the supplies.

(b) The limitation of liability under paragraph (a) above shall not apply when a defect or deficiency in, or the Government's acceptance of, the supplies results from willful misconduct or lack of good faith on the part of any of the Contractor's managerial personnel. The term "Contractor's managerial personnel," as used in this clause, means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives wb ho have supervision or direction of--

(1) All or substantially all of the Contractor's business;

(2) All or substantially all of the Contractor's operations at any one plant, laboratory, or separate location at which the contract is being performed; or

(3) A separate and complete major industrial operation connected with the performance of this contract.

(c) If the Contractor carries insurance, or has established a reserve for self-insurance, covering liability for loss or damage suffered by the Government through purchase or use of the supplies required to be delivered under this contract, the Contractor shall be liable to the Government, to the extent of such insurance or reserve, for loss of or damage to property of the Government occurring after Government acceptance of, and resulting from any defects or deficiencies in, the supplies delivered under this contract.

(d)(1) This clause does not diminish the Contractor's obligations, to the extent that they arise otherwise under this contract, relating to correction, repair, replacement, or other relief for any defect or deficiency in supplies delivered

under this contract.

(2) Unless this is a cost-reimbursement contract, if loss or damage occurs and correction, repair, or replacement is not feasible or desired by the Government, the Contractor shall, as determined by the Contracting Officer--

(i) Pay the Government the amount it would have cost the Contractor to make correction, repair, or replacement before the loss or damage occurred; (ii) Provide other equitable relief.

(e) This clause shall not limit or otherwise affect the Government's rights under clauses, if included in this contract, that cover--

(1) Warranty of technical data;

(2) Ground and flight risks or aircraft flight risks; or

(3) Government property.

(End of clause)

52.248-1 VALUE ENGINEERING (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any net acquisition savings realized from accepted VECP's, in accordance with the incentive sharing rates in paragraph (f) below.

(b) Definitions. "Acquisition savings," as used in this clause, means savings resulting from the application of a VECP to contracts awarded by the same contracting office or its successor for essentially the same unit. Acquisition savings include--

(1) Instant contract savings, which are the net cost reductions on this, the instant contract, and which are equal to the instant unit cost reduction multiplied by the number of instant contract units affected by the VECP, less the Contractor's allowable development and implementation costs;

(2) Concurrent contract savings, which are net reductions in the prices of other contracts that are definitized and ongoing at the time the VECP is accepted; and

(3) Future contract savings, which are the product of the future unit cost reduction multiplied by the number of future contract units in the sharing base. On an instant contract, future contract savings include savings on increases in quantities after VECP acceptance that are due to contract modifications, exercise of options, additional orders, and funding of subsequent year requirements on a multiyear contract.

"Collateral costs," as used in this clause, means agency cost of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contracting office" includes any contracting office that the acquisition is transferred to, such as another branch of the agency or another agency's office that is performing a joint acquisition action.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Future unit cost reduction," as used in this clause, means the instant unit cost reduction adjusted as the Contracting Officer considers necessary for projected learning or changes in quantity during the sharing period. It is calculated at the time the VECP is accepted and applies either (1) throughout the sharing period, unless the Contracting Officer decides that recalculation is necessary because conditions are significantly different from those previously anticipated or (2) to the calculation of a lump-sum payment, which cannot later be revised.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistics support. The term does not include the normal administrative costs of processing the VECP or any increase in this contract's cost or price resulting from negative instant contract savings.

"Instant contract," as used in this clause, means this contract, under which the VECP is submitted. It does not include increases in quantities after acceptance of the VECP that are due to contract modifications, exercise of options, or additional orders. If this is a multiyear contract, the term does not include quantities funded after VECP acceptance. If this contract is a fixed-price contract with prospective price redetermination, the term refers to the period for which firm prices have been established.

"Instant unit cost reduction" means the amount of the decrease in unit cost of performance (without deducting any Contractor's development or implementation costs) resulting from using the VECP on this, the instant contract. If this is a service contract, the instant unit cost reduction is normally equal to the number of hours per line-item task saved by using the VECP on this contract, multiplied by the appropriate contract labor rate.

"Negative instant contract savings" means the increase in the cost or price of this contract when the acceptance of a VECP results in an excess of the Contractor's allowable development and implementation costs over the product of the instant unit cost reduction multiplied by the number of instant contract units affected.

"Net acquisition savings" means total acquisition savings, including instant, concurrent, and future contract savings, less Government costs.

"Sharing base," as used in this clause, means the number of affected end items on contracts of the contracting office accepting the VECP.

Sharing period, as used in this clause, means the period beginning with acceptance of the first unit incorporating the VECP and ending at a calendar date or event determined by the contracting officer for each VECP.

"Unit," as used in this clause, means the item or task to which the Contracting Officer and the Contractor agree the VECP applies.

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the overall projected cost to the agency without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only;

(ii) In research and development (R&D) end items or R&D test quantities that is due solely to results of previous testing under this contract; or

(iii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (8) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and the proposed requirement, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, the effect of the change on the end item's performance, and any pertinent objective test data.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) Identification of the unit to which the VECP applies.

(4) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under the Subcontracts paragraph of this clause, below.

(5) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(6) A prediction of any effects the proposed change would have on collateral costs to the agency.

(7) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(8) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Contracting Officer, unless this contract states otherwise. If this contract is administered by other than the contracting office, the Contractor shall submit a copy of the VECP simultaneously to the Contracting Officer and to the Administrative Contracting Officer.

(e) Government action. (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

(2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

(3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause and made either before or within a reasonable time after contract performance is completed. Until such a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing rates. If a VECP is accepted, the Contractor shall share in net acquisition savings according to the percentages shown in the table below. The percentage paid the Contractor depends upon (1) this contract's type (fixed-price, incentive, or cost-reimbursement), (2) the sharing arrangement specified in paragraph (a) above (incentive, program requirement, or a combination as delineated in the Schedule), and (3) the source of the savings (the instant contract, or concurrent and future contracts), as follows:

CONTRACTOR'S SHARE OF NET ACQUISITION SAVINGS

(Figures in percent)

Contract Type	Incentive (Voluntary)		Program Requirement (Mandatory)	
	Instant Contract Rate	Concurrent and Future Contract Rate	Instant Contract Rate	Concurrent and Future Contract Rate
Fixed-price (includes fixed-price-award-fee; excludes other fixed-price incentive contracts)	(1) 50	(1) 50	(1) 25	25
Incentive (fixed-price or cost) (other than award fee)	(2)	(1) 50	(1) 50	25
Cost-reimbursement (includes cost-plus-award-fee; excludes other cost-type incentive Contracts)	(3) 25	(3)	15	15

(1) The Contracting Officer may increase the Contractor's sharing rate to as high as 75 percent for each VECP.
(2) Same sharing arrangement as the contract's profit or fee adjustment formula.
(3) The Contracting Officer may increase the Contractor's sharing rate to as high as 50 percent for each VECP.

(g) Calculating net acquisition savings.

(1) Acquisition savings are realized when (i) the cost or price is reduced on the instant contract, (ii) reductions are negotiated in concurrent contracts, (iii) future contracts are awarded, or (iv) agreement is reached on a lump-sum payment for future contract savings (see subparagraph (i)(4) below). Net acquisition savings are first realized, and the Contractor shall be paid a share, when Government costs and any negative instant contract savings have been fully offset against acquisition savings.

(2) Except in incentive contracts, Government costs and any price or cost increases resulting from negative instant contract savings shall be offset against acquisition savings each time such savings are realized until they are fully offset. Then, the Contractor's share is calculated by multiplying net acquisition savings by the appropriate Contractor's percentage sharing rate (see paragraph (f) above). Additional Contractor shares of net acquisition savings shall be paid to the Contractor at the time realized.

(3) If this is an incentive contract, recovery of Government costs on the instant contract shall be deferred and offset against concurrent and future contract savings. The Contractor shall share through the contract incentive structure in savings on the instant contract items affected. Any negative instant contract savings shall be added to the target cost or to the target price and ceiling price, and the amount shall be offset against concurrent and future contract savings.

(4) If the Government does not receive and accept all items on which it paid the Contractor's share, the Contractor shall reimburse the Government for the proportionate share of these payments.

(h) Contract adjustment. The modification accepting the VECP (or a subsequent modification issued as soon as possible after any negotiations are completed) shall--

(1) Reduce the contract price or estimated cost by the amount of instant contract savings, unless this is an incentive contract;

(2) When the amount of instant contract savings is negative, increase the contract price, target price and ceiling price, target cost, or estimated cost by that amount;

(3) Specify the Contractor's dollar share per unit on future contracts, or provide the lump-sum payment;

(4) Specify the amount of any Government costs or negative instant contract savings to be offset in determining net acquisition savings realized from concurrent or future contract savings; and

(5) Provide the Contractor's share of any net acquisition savings under the instant contract in accordance with the following:

(i) Fixed-price contracts--add to contract price.

(ii) Cost-reimbursement contracts--add to contract fee.

(i) Concurrent and future contract savings.

(1) Payments of the Contractor's share of concurrent and future contract savings shall be made by a modification to the instant contract in accordance with subparagraph (h)(5) above. For incentive contracts, shares shall be added as a separate firm-fixed-price line item on the instant contract. The Contractor shall maintain records adequate to identify the first delivered unit for 3 years after final payment under this contract.

(2) The Contracting Officer shall calculate the Contractor's share of concurrent contract savings by (i) subtracting from the reduction in price negotiated on the concurrent contract any Government costs or negative instant contract savings not yet offset and (ii) multiplying the result by the Contractor's sharing rate.

(3) The Contracting Officer shall calculate the Contractor's share of future contract savings by (i) multiplying the future unit cost reduction by the number of future contract units scheduled for delivery during the sharing period, (ii) subtracting any Government costs or negative instant contract savings not yet offset, and (iii) multiplying the result by the Contractor's sharing rate.

(4) When the Government wishes and the Contractor agrees, the Contractor's share of future contract savings may be paid in a single lump sum rather than in a series of payments over time as future contracts are awarded. Under this alternate procedure, the future contract savings may be calculated when the VECP is accepted, on the basis of the Contracting Officer's forecast of the number of units that will be delivered during the sharing period. The Contractor's share shall be included in a modification to this contract (see subparagraph (h)(3) above) and shall not be subject to subsequent adjustment.

(5) Alternate no-cost settlement method. When, in accordance with subsection 48.104-4 of the Federal Acquisition Regulation, the Government and the Contractor mutually agree to use the no-cost settlement method, the following applies:

(i) The Contractor will keep all the savings on the instant contract and on its concurrent contracts only.

(ii) The Government will keep all the savings resulting from concurrent contracts placed on other sources, savings from all future contracts, and all collateral savings.

(j) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount, as specified in paragraph (h)(5) of this clause, by a rate from 20 to 100 percent, as determined by the Contracting Officer, of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price, target price, target cost, or estimated cost, at the time the VECP is accepted, or $100,000, whichever is greater. The Contracting Officer will be the sole determiner of the amount of collateral savings.

(k) Relationship to other incentives. Only those benefits of an accepted VECP not rewardable under performance, design-to-cost (production unit cost, operating and support costs, reliability and maintainability), or similar incentives shall be rewarded under this clause. However, the targets of such incentives affected by the VECP shall not be adjusted because of VECP acceptance. If this contract specifies targets but provides no incentive to surpass them, the value engineering sharing shall apply only to the amount of achievement better than target.

(l) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of $100,000 or more and may include one in subcontracts of lesser value. In calculating any adjustment in this contract's price for instant contract savings (or negative instant contract savings), the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs, and any value engineering incentive payments to a subcontractor, clearly resulting from a VECP accepted by the Government under this contract. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that the payments shall not reduce the Government's share of concurrent or future contract savings or collateral savings.

(m) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering clause of contract . . . . . , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations."

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (f) of this clause:

(1) The contract price for completed supplies or services accepted by the Government (or sold or acquired under subparagraph (b)(9) of this clause) not previously paid for, adjusted for any saving of freight and other charges.

(2) The total of--

(i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (f)(1) of this clause;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(2)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(2)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(3) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-8 DEFAULT (FIXED-PRICE SUPPLY AND SERVICE) (APR 1984)

(a)(1) The Government may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to--

(i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;

(ii) Make progress, so as to endanger performance of this contract (but see subparagraph (a)(2) of this clause); or

(iii) Perform any of the other provisions of this contract (but see subparagraph (a)(2) below).

(2) The Government's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure.

(b) If the Government terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Contracting Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the Government for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.

(c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance the failure to perform must be beyond the control and without the fault or negligence of the Contractor.

(d) If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted supplies or services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule.

(e) If this contract is terminated for default, the Government may require the Contractor to transfer title and deliver to the Government, as directed by the Contracting Officer, any (1) completed supplies, and (2) partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (collectively referred to as "manufacturing materials" in this clause) that the Contractor has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Contracting Officer, the Contractor shall also protect and preserve property in its possession in which the Government has an interest.

(f) The Government shall pay contract price for completed supplies delivered and accepted. The Contractor and Contracting Officer shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property. Failure to agree will be a dispute under the Disputes clause. The Government may withhold from these amounts any sum the Contracting Officer determines to be necessary to protect the Government against loss because of outstanding liens or claims of former lien holders.

(g) If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Government.

(h) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(f) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

(1) "Arising out of a contract with the DoD" means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) "Conviction of fraud or any other felony" means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of *nolo contendere*, for which sentence has been imposed.

(3) "Date of conviction" means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than $500,000 if convicted of knowingly—

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

(End of clause)

252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991)

(a) The Contractor shall display prominently in common work areas within business segments performing work under Department of Defense (DoD) contracts, DoD Hotline Posters prepared by the DoD Office of the Inspector General.

(b) DoD Hotline Posters may be obtained from the DoD Inspector General, ATTN: Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884.

(g) The Contractor need not comply with paragraph (a) of this clause if it has established a mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(End of clause)

252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) Definitions.

As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, 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 confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at http://www.ccr.gov.

(End of clause)

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)

(a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of $25,000 with a firm, or subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(End of clause)

252.215-7000 PRICING ADJUSTMENTS (DEC 1991)

The term "pricing adjustment," as used in paragraph (a) of the clauses entitled "Price Reduction for Defective Cost or Pricing Data - Modifications," "Subcontractor Cost or Pricing Data," and "Subcontractor Cost or Pricing Data - Modifications," means the aggregate increases and/or decreases in cost plus applicable profits.

(End of clause)

252.219-7003 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (APR. 1996)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan, clause of this contract.

(a) *Definitions. Historically black colleges and universities,* as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

Minority institutions, as used in this clause, means institutions meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also includes Hispanic-serving institutions as defined in section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1)).

(b) Except for company or division-wide commercial items subcontracting plans, the term *small disadvantaged business,* when used in the FAR 52.219-9 clause, includes historically black colleges and universities and minority institutions, in addition to small disadvantaged business concerns.

(c) Work under the contract or its subcontracts shall be credited toward meeting the small disadvantaged business concern goal required by paragraph (d) of the FAR 52.219-9 clause when:

(1) It is performed on Indian lands or in joint venture with an Indian tribe or a tribally-owned corporation, and

(2) It meets the requirements of 10 U.S.C. 2323a.

(d) Subcontracts awarded to workshops approved by the Committee for Purchase from People Who are Blind or Severely Disabled (41 U.S.C. 46-48), may be counted toward the Contractor's small business subcontracting goal.

(e) A mentor firm, under the Pilot Mentor-Protege Program established under Section 831 of Pub. L. 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded--

(f) The master plan approval referred to in paragraph (f) of the FAR 52.219-9 clause is approval by the Contractor's cognizant contract administration activity.

(g) In those subcontracting plans which specifically identify small, small disadvantaged, and women-owned small businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small, small disadvantaged, or women-owned small businesses for the firms listed in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.

(End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

252.225-7001 BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM (MAR 1998)

(a) Definitions.

As used in this clause--

(1) Components means those articles, materials, and supplies directly incorporated into end products.

(2) Domestic end product means--

(i) An unmanufactured end product that has been mined or produced in the United States; or

(ii) An end product manufactured in the United States if the cost of its qualifying country components and its components that are mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. The cost of components shall include transportation costs to the place of incorporation into the end product and U.S. duty (whether or not a duty-free entry certificate may be issued). A component shall be considered to have been mined, produced, or manufactured in the United States (regardless of its source in fact) if the end product in which it is incorporated is manufactured in the United States and the component is of a class or kind--

(A) Determined to be not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality; or

(B) That the Secretary concerned determines would be inconsistent with the public interest to apply the restrictions of the Buy American Act.

(3) End product means those articles, materials, and supplies to be acquired for public use under the contract. For this contract, the end products are the line items to be delivered to the Government (including supplies to be acquired by the Government for public use in connection with service contracts, but excluding installation and other services to be performed after delivery).

(4) Nonqualifying country end product means an end product that is neither a domestic end product nor a qualifying country end product.

(5) Qualifying country means any country set forth in subsection 225.872-1 of the Defense Federal Acquisition Regulation Supplement.

(6) Qualifying country component means an item mined, produced, or manufactured in a qualifying country.

(7) Qualifying country end product means--

(i) An unmanufactured end product mined or produced in a qualifying country; or

(ii) An end product manufactured in a qualifying country if the cost of the components mined, produced, or manufactured in the qualifying country and its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components.

(b) This clause implements the Buy American Act (41 U.S.C. Section 10a-d) in a manner that will encourage a favorable international balance of payments by providing a preference to domestic end products over other end products, except for end products which are qualifying country end products.

(c) The Contractor agrees that it will deliver only domestic end products unless, in its offer, it specified delivery of other end products in the Buy American Act--Balance of Payments Program Certificate provision of the solicitation. An offer certifying that a qualifying country end product will be supplied requires the Contractor to deliver a qualifying country end product or a domestic end product.

(d) The offered price of qualifying country end products should not include custom fees or duty. The offered price of nonqualifying country end products, and products manufactured in the United States that contain nonqualifying country components, must include all applicable duty. The award price will not include duty for end products or components that are to be accorded duty-free entry. Generally, when the Buy American Act is applicable, each nonqualifying country offer is adjusted for the purpose of evaluation by adding 50 percent of the offer, inclusive of duty.

252.225-7002 QUALIFYING COUNTRY SOURCES AS SUBCONTRACTORS (DEC 1991)

Subject to the restrictions in section 225.872 of the Defense FAR Supplement, the Contractor shall not preclude qualifying country sources and U.S. sources from competing for subcontracts under this contract.

(End of clause)

252.225-7009 DUTY-FREE ENTRY--QUALIFYING COUNTRY END PRODUCTS AND SUPPLIES (AUG 2000)

(a) Definitions. Qualifying country and qualifying country end products have the meaning given in the Buy American Act and Balance of Payments Program clause, Buy American Act--Trade Agreements--Balance of Payments Program clause, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program clause, or Trade Agreements clause of this contract.

(b) The requirements of this clause apply to this contract and subcontracts, including purchase orders, that involve supplies to be accorded duty-free entry whether placed--

(1) Directly with a foreign concern as a prime contract; or

(2) As a subcontract or purchase order under a contract with a domestic concern.

(c) Except as otherwise approved by the Contracting Officer, or unless supplies were imported into the United States before the date of this contract or, in the case of supplies imported by a first or lower tier subcontractor, before the date of the subcontract, no amount is or will be included in the contract price for duty for--

(1) End items that are qualifying country end products; or

(2) Components (including, without limitation, raw materials and intermediate assemblies) produced or made in qualifying countries, that are to be incorporated in the end items to be delivered under this contract, provided that the end items are manufactured in the United States or in a qualifying country.

(d)The Contractor warrants that--

(1)All qualifying country supplies, for which duty-free entry is to be claimed, are intended to be delivered to the Government or incorporated in the end items to be delivered under this contract; and

(2)The Contractor will pay duty to the extent that such supplies, or any portion thereof (if not scrap or salvage) are diverted to nongovernmental use, other than as a result of a competitive sale made, directed, or authorized by the Contracting Officer.

(e)The Government agrees to execute duty-free entry certificates and to afford such assistance as appropriate to obtain the duty-free entry of qualifying country supplies for which the shipping documents bear the notation specified in paragraph (f) of this clause, except as the Contractor may otherwise agree.

(f)All shipping documents submitted to Customs, covering foreign end products or supplies for which duty-free entry certificates are to be issued under this clause, shall--

(1)Consign the shipments to the appropriate--

(i)Military department in care of the Contractor, including the Contractor's delivery address; or

(ii)Military installation; and

(2)Include the following information--

(i)Prime contract number, and delivery order if applicable;

(ii)Number of the subcontract/purchase order for foreign supplies if applicable;

(iii)Identification of carrier;

(iv)(A) For direct shipments to a U.S. military installation, the notation:

UNITED STATES GOVERNMENT, DEPARTMENT OF DEFENSE Duty-Free Entry to be claimed pursuant to Section XXII, Chapter 98, Subchapter VIII, Item 9808.00.30 of the Harmonized Tariff Schedule of the United States. Upon arrival of shipment at the appropriate port of entry, District Director of Customs, please release shipment under 19 CFR part 142 and notify Commander, Defense Contract Management Agency (DCMA) New York, ATTN: Customs Team, DCMDN-GNIC, 207 New York Avenue, Building 120, Staten Island, New York, 10305-5013, for execution of Customs Forms 7501, 7501A, or 7506 and any required duty-free entry certificates.

(B) In cases where the shipment will be consigned to other than a military installation, e.g., a domestic contractor's plant, the shipping document notation shall be altered to insert the name and address of the contractor, agent or broker who will notify Commander, DCM New York, for execution of the duty-free certificate

(v)Gross weight in pounds (if freight is based on space tonnage, state cubic feet in addition to gross shipping weight);

(vi)Estimated value in U.S. dollars; and

(vii) Activity Address Number of the contract administration office actually administering the prime contract, e.g., for DCM Dayton, S3605A

(g) Preparation of customs forms. (1) Except for shipments consigned to a military installation, the Contractor shall prepare, or authorize an agent to prepare, any customs forms required for the entry of foreign supplies in connection with DoD contracts into the United States, its possessions, or Puerto Rico. The completed customs forms shall be submitted to the District Director of Customs with a copy to DCM New York for execution of any required duty-free entry certificates. Shipments consigned directly to a military installation will be released in accordance with 10.101 and 10.102 of the U.S. Customs regulations.

(2) For shipments containing both supplies that are to be accorded duty-free entry and supplies that are not, the Contractor shall identify on the customs forms those items that are eligible for duty-free entry

(h)The contractor agrees--

(1)To prepare (if this contract is placed directly with a foreign supplier), or to instruct the foreign supplier to prepare, a sufficient number of copies of the bill of lading (or other shipping document) so that at least two of the copies accompanying the shipment will be available for use by the District Director of Customs at the port of entry;

(2)To consign the shipment as specified in paragraph (f) of this clause; and

(3)To mark the exterior of all packages as follows:

(i)"UNITED STATES GOVERNMENT, DEPARTMENT OF DEFENSE;" and

(ii)The activity address number of the contract administration office actually administering the prime contract.

(i)The Contractor agrees to notify the Contracting Officer administering the prime contract in writing of any purchase under the contract of qualifying country supplies to be accorded duty-free entry that are to be imported into the United States for delivery to the Government or for incorporation in end items to be delivered to the Government. The notice shall be furnished to the contract administration office immediately upon award to the qualifying country supplier. The notice shall contain--

(1)Prime contractor's name, address, and CAGE code;

(2)Prime contract number, and delivery order number if applicable;

(3)Total dollar value of the prime contract or delivery order;

(4)Expiration date of the prime contract or delivery order;

(5)Foreign supplier's name and address;

(6)Number of the subcontract/purchase order for foreign supplies;

(7)Total dollar value of the subcontract for foreign supplies;

(8)Expiration date of the subcontract for foreign supplies;

(9)List of items purchased;

(10)An agreement by the Contractor that duty shall be paid by the Contractor to the extent that such supplies, or any portion (if not scrap or salvage) are diverted to nongovernmental use other than as a result of a competitive sale made, directed or authorized by the Contracting Officer;

(11)The qualifying country; and

(12)The scheduled delivery date(s).

(j)This clause does not apply to purchases of qualifying country supplies in connection with this contract if--

(1)The qualifying country supplies are identical in nature to supplies purchased by the Contractor or any subcontractor in connection with its commercial business; and

(2)It is not economical or feasible to account for such supplies so as to ensure that the amount of the supplies for which duty-free entry is claimed does not exceed the amount purchased in connection with this contract.

(k)The Contractor agrees to insert the substance of this clause, including this paragraph (k) in all subcontracts for supplies. Each subcontract shall require the subcontractor to identify this contract by including its contract number on any shipping documents submitted to Customs covering supplies for which duty-free entry is to be claimed pursuant to this clause. The Contractor also agrees that the name and address of the Contracting Officer administering the prime contract (name and address of the contract administration office cognizant of the prime contract), and its activity address number (Appendix G of the Defense FAR Supplement), and the information required by paragraphs (i)(1), (2), and (3) of this clause will be included in applicable subcontracts.

(End of clause)

252.225-7010 DUTY-FREE ENTRY--ADDITIONAL PROVISIONS (AUG 2000)

(a) The requirements of this clause supplement the Duty-Free Entry clause of this contract.

Both of these clauses apply to this contract and subcontracts, including purchase orders, that involve supplies to be accorded duty-free entry whether placed--

(1) Directly with a foreign concern as a prime contract; or

(2) As a subcontractor purchase order under a contract with a domestic concern.

(b) The Contractor shall send the notification required by paragraph (b)(1) of the Duty-Free Entry clause of this contract to the Contracting Officer administering this contract.

(c) In addition to any data required by paragraph (b)(1) of the Duty-Free Entry clause, the Contractor shall furnish the following for all foreign supplies to be imported pursuant to paragraph (a) or (b) of the Duty-Free Entry clause. The Contractor shall furnish this information to the Contracting Officer administering the prime contract immediately upon award of any contract or subcontract involving supplies to be accorded duty-free entry.

(1) Prime contractor's name, address, and CAGE code;

(2) Prime contract number plus delivery order number, if applicable;

(3) Total dollar value of the prime contract or delivery order;

(4) Expiration date of the prime contract or delivery order;

(5) Foreign supplier's name and address;

(6) Number of the subcontract/purchase order for foreign supplies;

(7) Total dollar value of the subcontract for foreign supplies;

(8) Expiration date of the subcontract for foreign supplies;

(9) List of items purchased; and

(10) Certification by the purchaser of foreign supplies as follows: I certify that all supplies for which duty-free entry is to be claimed are to be delivered to the Government or incorporated in the end items to be delivered under this contract, and that duty shall be paid by the Contractor to the extent that such supplies, or any portion (if not scrap or salvage) are diverted to nongovernmental use other than as a result of a competitive sale made, directed, or authorized by the Contracting Officer.

(d) The Contractor agrees to incorporate the substance of this clause, including this paragraph (d), in any subcontract (including purchase orders) in accordance with paragraph (i) of the Duty-Free Entry clause of this contract. The Contractor agrees that the name and address of the Contracting Officer administering the prime contract (name and address of the contract administration office cognizant of the prime contract and its activity address number (appendix G of the Defense FAR Supplement)) and the information required by paragraphs (c)(1), (2), and (3) of this clause will be included in applicable subcontracts.

(e) To properly complete the shipping document instructions as required by paragraph (f) of the Duty-Free Entry clause, the Contractor shall insert Defense Contract Management (DCM) New York, ATTN: Customs Team, DCMDN-GNIC, 207 New York Avenue, Building 120, Staten Island, New York 10305-5013, as the cognizant contract administration office (for paragraph (f) only) in those cases when the shipment is consigned directly to a military installation. :

(1) Delivery order number on the Government prime contract, if applicable;

(2) Number of the subcontract/purchase order for foreign supplies, if applicable;

(3) Activity address number of the contract administration office actually administering the prime contract, e.g., for DCMC Dayton, S3605A.

(f) Except for shipments consigned to a military installation, the Contractor shall prepare, or authorize an agent to prepare, any customs forms required for the entry into the United States, its possessions, or Puerto Rico of foreign supplies in connection with DoD contracts. The Contractor shall submit the completed customs forms to the District Director of Customs with a copy to DCMAO New York for execution of any required duty-free entry certificates. For shipments containing both supplies which are to be accorded duty-free entry and supplies which are not, the Contractor shall identify on the customs forms those items which are eligible for duty-free entry under the

provisions of the Duty-Free Entry clause. Shipments consigned directly to a military installation will be released in accordance with §§10.101 and 10.102 of the U.S. Customs regulations.

(g) The Contractor shall ensure that all exterior containers are marked in accordance with paragraph (g) of the Duty-Free Entry clause, including the following additional data--

(1) "UNITED STATES GOVERNMENT, DEPARTMENT OF DEFENSE;" and

(2) The activity address number for the contract administration office actually administering the prime contract.

(End of clause)

252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (APR 2002)

(a) Definitions. As used in this clause--

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To foods that have been manufactured or processed in the United States, its possessions, or Puerto Rico, regardless of where the foods (and any component if applicable) were grown or produced;

(4) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(5) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(End of clause)

252.225-7016 RESTRICTION ON ACQUISITION OF BALL AND ROLLER BEARINGS (DEC 2000)

(a) Definitions.

As used in this clause--

(1) “Bearing components” means the bearing element, retainer, inner race, or outer race.

(2) “Miniature and instrument ball bearings” means all rolling contact ball bearings with a basic outside diameter (exclusive of flange diameters) of 30 millimeters or less, regardless of material, tolerance, performance, or quality characteristics.

(b) The Contractor agrees that, except as provided in paragraph (c) of this clause, all ball and roller bearings and ball and roller bearing components (including miniature and instrument ball bearings) delivered under this contract, either as end items or components of end items, shall be wholly manufactured in the United States or Canada. Unless otherwise specified, raw materials, such as performed bar, tube, or rod stock and lubricants, need not be mined or produced in the United States or Canada.

(c) (1) The restriction in paragraph (b) of this clause does not apply to ball or roller bearings that are acquired as components if--

(i) The end items or components containing ball or roller bearings are commercial items; or

(ii) The ball or roller bearings are commercial components manufactured in the United Kingdom.

(2) The commercial item exception in paragraph (c)(1) of this clause does not include items designed or developed under a Government contract or contracts where the end item is bearings and bearing components.

(d) The restriction in paragraph (b) of this clause may be waived upon request from the Contractor in accordance with subsection 225.7019-3 of the Defense Federal Acquisition Regulation Supplement. If the restriction is waived for miniature and instrument ball bearings, the Contractor agrees to acquire a like quantity and type of domestic manufacture for nongovernmental use.

(e) The Contractor agrees to retain records showing compliance with this restriction until 3 years after final payment and to make records available upon request of the Contracting Office.

(f) The Contractor agrees to insert this clause, including this paragraph (f), in every subcontract and purchase order issued in performance of this contract, unless items acquired are--

(1) Commercial items other than ball or roller bearings; or

(2) Items that do not contain ball or roller bearings.

(End of clause)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

(a) Definitions. As used in this clause--

(1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concerns, as determined under regulations of the President.

(b) Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(End of clause)

252.227-7013 RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS. (NOV 1995)

(a) Definitions. As used in this clause:

(1) Computer data base means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(2) Computer program means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.

(3) Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

(4) Computer software documentation means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(5) Detailed manufacturing or process data means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a process.

(6) Developed means that an item, component, or process exists and is workable. Thus, the item or component must have been constructed or the process practiced. Workability is generally established when the item, component, or process has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable art that there is a high probability that it will operate as intended. Whether, how much, and what type of analysis or testing is required to establish workability depends on the nature of the item, component, or process, and the state of the art. To be considered "developed," the item, component, or process need not be at the stage where it could be offered for sale or sold on the commercial market, nor must the item, component, or process be actually reduced to practice within the meaning of Title 35 of the United States Code.

(7) Developed exclusively at private expense means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof.

(i) Private expense determinations should be made at the lowest practicable level.

(ii) Under fixed-price contracts, when total costs are greater than the firm-fixed-price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when determining whether development was at government, private, or mixed expense.

(8) Developed exclusively with government funds means development was not accomplished exclusively or partially at private expense.

(9) Developed with mixed funding means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a government contract, and partially with costs charged directly to a government contract.

(10) Form, fit, and function data means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

(11) Government purpose means any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.

(12) Government purpose rights means the rights to--

(i) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

(ii) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

(13) Limited rights means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party, except that the Government may reproduce, release or disclose such data or authorize the use or reproduction of the data by persons outside the Government if reproduction, release, disclosure, or use is--

(i) Necessary for emergency repair and overhaul; or

(ii) A release or disclosure of technical data (other than detailed manufacturing or process data) to, or use of such data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;

(iii) Subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and

(iv) The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

(14) Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(15) Unlimited rights means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

(b) Rights in technical data. The Contractor grants or shall obtain for the Government the following royalty free, world-wide, nonexclusive, irrevocable license rights in technical data other than computer software documentation (see the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract for rights in computer software documentation):

(1) Unlimited rights.

The Government shall have unlimited rights in technical data that are--

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Created exclusively with Government funds in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;

(vii) Otherwise publicly available or have been released or disclosed by the Contractor or subcontractor without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some or all of a business entity or its assets to another party;

(viii) Data in which the Government has obtained unlimited rights under another Government contract or as a result of negotiations; or

(ix) Data furnished to the Government, under this or any other Government contract or subcontract thereunder, with--

(A) Government purpose license rights or limited rights and the restrictive condition(s) has/have expired; or

(B) Government purpose rights and the Contractor's exclusive right to use such data for commercial purposes has expired.

(2) Government purpose rights.

(i) The Government shall have government purpose rights for a five-year period, or such other period as may be negotiated, in technical data--

(A) That pertain to items, components, or processes developed with mixed funding except when the Government is entitled to unlimited rights in such data as provided in paragraphs (b)(ii) and (b)(iv) through (b)(ix) of this clause; or

(B) Created with mixed funding in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The five-year period, or such other period as may have been negotiated, shall commence upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the items, components, or processes or creation of the data described in paragraph (b)(2)(i)(B) of this clause. Upon expiration of the five-year or other negotiated period, the Government shall have unlimited rights in the technical data.

(iii) The Government shall not release or disclose technical data in which it has government purpose rights unless-

(A) Prior to release or disclosure, the intended recipient is subject to the non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS); or

(B) The recipient is a Government contractor receiving access to the data for performance of a Government contract that contains the clause at DFARS 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends.

(iv) The Contractor has the exclusive right, including the right to license others, to use technical data in which the Government has obtained government purpose rights under this contract for any commercial purpose during the time period specified in the government purpose rights legend prescribed in paragraph (f)(2) of this clause.

(3) Limited rights.

(i) Except as provided in paragraphs (b)(1)(ii) and (b)(1)(iv) through (b)(1)(ix) of this clause, the Government shall have limited rights in technical data--

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the limited rights legend prescribed in paragraph (f) of this clause; or

(B) Created exclusively at private expense in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The Government shall require a recipient of limited rights data for emergency repair or overhaul to destroy the data and all copies in its possession promptly following completion of the emergency repair/overhaul and to notify the Contractor that the data have been destroyed.

(iii) The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data furnished to the Government with limited rights. However, if the Government desires to obtain additional rights in technical data in which it has limited rights, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has granted the Government additional rights shall be listed or described in a license agreement made part of the contract. The license shall enumerate the additional rights granted the Government in such data.

(4) Specifically negotiated license rights.

The standard license rights granted to the Government under paragraphs (b)(1) through (b)(3) of this clause, including the period during which the Government shall have government purpose rights in technical data, may be modified by mutual agreement to provide such rights as the parties consider appropriate but shall not provide the Government lesser rights than are enumerated in paragraph (a)(13) of this clause. Any rights so negotiated shall be identified in a license agreement made part of this contract.

(5) Prior government rights.

Technical data that will be delivered, furnished, or otherwise provided to the Government under this contract, in which the Government has previously obtained rights shall be delivered, furnished, or provided with the pre-existing rights, unless--

(i) The parties have agreed otherwise; or

(ii) Any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(6) Release from liability.

The Contractor agrees to release the Government from liability for any release or disclosure of technical data made in accordance with paragraph (a)(13) or (b)(2)(iii) of this clause, in accordance with the terms of a license negotiated under paragraph (b)(4) of this clause, or by others to whom the recipient has released or disclosed the data and to seek relief solely from the party who has improperly used, modified, reproduced, released, performed, displayed, or disclosed Contractor data marked with restrictive legends.

(c) Contractor rights in technical data. All rights not granted to the Government are retained by the Contractor.

(d) Third party copyrighted data. The Contractor shall not, without the written approval of the Contracting Officer, incorporate any copyrighted data in the technical data to be delivered under this contract unless the Contractor is the copyright owner or has obtained for the Government the license rights necessary to perfect a license or licenses in the deliverable data of the appropriate scope set forth in paragraph (b) of this clause, and has affixed a statement of the license or licenses obtained on behalf of the Government and other persons to the data transmittal document.

(e) Identification and delivery of data to be furnished with restrictions on use, release, or disclosure. (1) This paragraph does not apply to restrictions based solely on copyright.

(2) Except as provided in paragraph (e)(3) of this clause, technical data that the Contractor asserts should be furnished to the Government with restrictions on use, release, or disclosure are identified in an attachment to this contract (the Attachment). The Contractor shall not deliver any data with restrictive markings unless the data are listed on the Attachment.

(3) In addition to the assertions made in the Attachment, other assertions may be identified after award when based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision. Such identification and assertion shall be submitted to the Contracting Officer as soon as practicable prior to the scheduled date for delivery of the data, in the following format, and signed by an official

authorized to contractually obligate the Contractor: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted--

Technical data to be Furnished With Restrictions \1/	Basis for Assertion \2/	Asserted Rights Category \3/	Name of Person Asserting Restrictions \4/
(LIST)	(LIST)	(LIST)	(LIST)

\1/ If the assertion is applicable to items, components or processes developed at private expense, identify both the data and each such items, component, or process.

\2/ Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or disclose technical data pertaining to such items, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's rights should be restricted.

\3/ Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited or government purpose rights under this or a prior contract, or specifically negotiated licenses).

\4/ Corporation, individual, or other person, as appropriate.
Date _____

Printed Name and Title _____

_____

Signature _____

(End of identification and assertion)

(4) When requested by the Contracting Officer, the Contractor shall provide sufficient information to enable the Contracting Officer to evaluate the Contractor's assertions. The Contracting Officer reserves the right to add the Contractor's assertions to the Attachment and validate any listed assertion, at a later date, in accordance with the procedures of the Validation of Restrictive Markings on Technical Data clause of this contract.

(f) Marking requirements. The Contractor, and its subcontractors or suppliers, may only assert restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data to be delivered under this contract by marking the deliverable data subject to restriction. Except as provided in paragraph (f)(5) of this clause, only the following legends are authorized under this contract: the government purpose rights legend at paragraph (f)(2) of this clause; the limited rights legend at paragraph (f)(3) of this clause; or the special license rights legend at paragraph (f)(4) of this clause; and/or a notice of copyright as prescribed under 17 U.S.C. 401 or 402.

(1) General marking instructions. The Contractor, or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all technical data that qualify for such markings. The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which restrictions are asserted. When only portions of a page of printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring, with a note, or other appropriate identifier. Technical data transmitted directly from one computer or computer terminal to another shall

contain a notice of asserted restrictions. Reproductions of technical data or any portions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

(2) Government purpose rights markings. Data delivered or otherwise furnished to the Government purpose rights shall be marked as follows:

Government Purpose Rights

Contract No. _____

Contractor Name _____

Contractor Address _____

_____

Expiration Date _____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(2) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. No restrictions apply after the expiration date shown above. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(3) Limited rights markings. Data delivered or otherwise furnished to the Government with limited rights shall be marked with the following legend:

Limited Rights

Contract No. _____

Contractor Name _____

Contractor Address _____

_____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(3) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify the above named Contractor.

(End of legend)

(4) Special license rights markings. (i) Data in which the Government's rights stem from a specifically negotiated license shall be marked with the following legend:

Special License Rights

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these data are restricted by Contract No. _____ (Insert contract number) _____, License No. _____ (Insert license identifier) _____. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(ii) For purposes of this clause, special licenses do not include government purpose license rights acquired under a prior contract (see paragraph (b)(5) of this clause).

(5) Pre-existing data markings. If the terms of a prior contract or license permitted the Contractor to restrict the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data deliverable under this contract, and those restrictions are still applicable, the Contractor may mark such data with the appropriate restrictive legend for which the data qualified under the prior contract or license. The marking procedures in paragraph (f)(1) of this clause shall be followed.

(g) Contractor procedures and records. Throughout performance of this contract, the Contractor and its subcontractors or suppliersthat will deliver technical data with other than unlimited rights, shall--

(1) Have, maintain, and follow written procedures sufficient to assure that restrictive markings are used only when authorized by the terms of this clause; and

(2) Maintain records sufficient to justify the validity of any restrictive markings on technical data delivered under this contract.

(h) Removal of unjustified and nonconforming markings. (1) Unjustified technical data markings. The rights and obligations of the parties regarding the validation of restrictive markings on technical data furnished or to be furnished under this contract are contained in the Validation of Restrictive Markings on Technical Data clause of this contract. Notwithstanding any provision of this contract concerning inspection and acceptance, the Government may ignore or, at the Contractor's expense, correct or strike a marking if, in accordance with the procedures in the Validation of Restrictive Markings on Technical Data clause of this contract, a restrictive marking is determined to be unjustified.

(2) Nonconforming technical data markings. A nonconforming marking is a marking placed on technical data delivered or otherwise furnished to the Government under this contract that is not in the format authorized by this contract. Correction of nonconforming markings is not subject to the validation of Restrictive Markings on Technical Data clause of this contract. If the Contracting Officer notifies the Contractor of a nonconforming marking and the Contractor fails to remove or correct such marking within sixty (60) days, the Government may ignore or, at the Contractor's expense, remove or correct any nonconforming marking.

(i) Relation to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

(j) Limitation on charges for rights in technical data. (1) The Contractor shall not charge to this contract any cost, including, but not limited to, license fees, royalties, or similar charges, for rights in technical data to be delivered under this contract when--

(i) The Government has acquired, by any means, the same or greater rights in the data; or

(ii) The data are available to the public without restrictions.

(2) The limitation in paragraph (j)(1) of this clause--

(i) Includes costs charged by a subcontractor or supplier, at any tier, or costs incurred by the Contractor to acquire rights in subcontractor or supplier technical data, if the subcontractor or supplier has been paid for such rights under any other Government contract or under a license conveying the rights to the Government; and

(ii) Does not include the reasonable costs of reproducing, handling, or mailing the documents or other media in which the technical data will be delivered.

(k) Applicability to subcontractors or suppliers. (1) The Contractor shall ensure that the rights afforded its subcontractors and suppliers under 10 U.S.C. 2320, 10 U.S.C. 2321, and the identification, assertion, and delivery processes of paragraph (e) of this clause are recognized and protected.

(2) Whenever any technical data for noncommercial items is to be obtained from a subcontractor or supplier for delivery to the Government under this contract, the Contractor shall use this same clause in the subcontract or other contractual instrument, and require its subcontractors or suppliers to do so, without alteration, except to identify the parties. No other clause shall be used to enlarge or diminish the Government's, the Contractor's, or a higher-tier subcontractor's or supplier's rights in a subcontractor's or supplier's technical data.

(3) Technical data required to be delivered by a subcontractor or supplier shall normally be delivered to the next higher-tier contractor, subcontractor, or supplier. However, when there is a requirement in the prime contract for data which may be submitted with other than unlimited rights by a subcontractor or supplier, then said subcontractor or supplier may fulfill its requirement by submitting such data directly to the Government, rather than through a higher-tier contractor, subcontractor, or supplier.

(4) The Contractor and higher-tier subcontractors or suppliers shall not use their power to award contracts as economic leverage to obtain rights in technical data from their subcontractors or suppliers. (5) In no event shall the Contractor use its obligation to recognize and protect subcontractor or supplier rights in technical data as an excuse for failing to satisfy its contractual obligations to the Government.

(End of clause)

252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAY 2002)

(a) Definitions. As used in this clause --

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) "Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or

owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if--

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

(1) Type, weight, and cube of cargo;

(2) Required shipping date;

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

(1) Prime contract number;

(2) Name of vessel;

(3) Vessel flag of registry;

(4) Date of loading;

(5) Port of loading;

(6) Port of final discharge;

(7) Description of commodity;

(8) Gross weight in pounds and cubic feet if available;

(9) Total ocean freight in U.S. dollars; and

(10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY

TOTAL_____

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there

has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(End of clause)

252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause)

PART III
LIST OF DOCS, EXHIBITS AND ATTACHMENTS
SECTION J

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J01 NOT USED

J02 ENG FORM 2454

The Contractor shall utilize the ENG Form 2454 for the Construction Plan required by Clause H06.

CONSTRUCTION PROGRESS CHART

REPORTS CONTROL SYMBOL

1. CONTRACTOR	3. PROJECT	5. CONTRACT DESCRIPTION	6. SUBMITTED FOR APPROVAL — DATE
2. CONTRACT NUMBER	4. LOCATION		7. APPROVAL RECOMMENDED — DATE
			8. APPROVED — DATE

LEGEND

BARS:
Scheduled progress to date of report
Actual progress
CURVES:
Scheduled progress _____ Actual progress .....

PRINCIPAL CONTRACT FEATURE	LINE ITEM	WT.	ESTIMATED COST	
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL
				SCHED. / ACTUAL

100 90 80 70 60 50 40 30 20 10 0

ENG FORM 2454 (Transferred) PREVIOUS EDITION MAY BE USED

U.S. GOVERNMENT PRINTING OFFICE 1963 OF—777-347

J03 PERFORMANCE EVALUATION FOR SERVICE & SUPPLY CONTRACTS

In accordance with FAR 42.15, AFAR 42.15, and Army Acquisition Letter 98-1, this contract action is subject to the requirement for Contractor performance evaluation in the elements listed on the attached form.

At a minimum, the performance evaluation shall be completed within 45 days of completion of each year's performance. Additional (Interim) evaluations may be prepared if any element listed is being performed unsatisfactorily.

The period of evaluation will begin on the date of acknowledgment of receipt of the Notice to Proceed and will run concurrent with the performance period of the contract.

The Contractor shall be provided thirty (30) days to submit comments, rebut statements, or provide additional information before the final performance evaluation is issued. This period may be shortened if an interim unsatisfactory evaluation is being contemplated and time does not allow for a full thirty (30) days.

The Contractor may appeal a final performance evaluation to the Commander of the Contracting Activity. The appeal must be made within thirty (30) days, and must be a written request to the Contracting Officer stating the reasons why a further review of their performance evaluation is justified, and the circumstances which may be cause the Government to revise its performance rating. Interim evaluations are not subject to appeal.

Performance Assessment Report (PAR)

- ☐ Interim
- ☐ Final
- ☐ Addendum

Period Report: From _____ To _____

Section I	
1a. Contractor:	2a. Contract Number:
Address:	2b. Modification Number:
	2c. Del/Task Order Number:
	2d. Initial Value (Base + Options): $
Place of Performance:	2e. Current Value: $
1b. Cage Code:	3a. Award Date:
1c. DUNS No.:	3b. Completion Date:

Section II	
4a. Contractor POC: Name: Position/Title: Address: Phone No.: FAX: E-Mail Address:	4b. Gov't Contract Specialist: Name: Address: Phone No.: FAX: E-mail Address:

Section III				
5. Method of Contract: ☐ Sealed Bid ☐ Negotiated				
6. Type of Contract: (Check all that apply)				
☐ FFP ☐ FFP-EPA ☐ FPIF ☐ FPR[P]	☐ FPR[R] ☐ FFP-LOE ☐ T&M ☐ CR	☐ CS ☐ CPIF ☐ CPAF ☐ CPFF[C]	☐ CPFF[T] ☐ Labor Hour ☐ ID ☐ IQ	☐ Rqmts ☐ BOA ☐ Letter ☐ Other
7. Socio-economic Program:				
☐ SBSA	☐ 8(a)	☐ SBIR	☐ SBCDP	☐ Other
8. Competition:				
☐ Full and Open Competition	☐ Sole Source	☐ Other		
9. Type of Supply/Services:				
☐ Commercial	☐ Non-Developmental	☐ Non-Commercial		

Section IV		
10. Business Sector:		
☐ Space ☐ Ordnance ☐ Aircraft ☐ Training System	☐ Ground Vehicles ☐ Shipbuilding ☐ Other Systems ☐ Operations Support	☐ Information Technology ☐ Science & Technology ☐ Services ☐ Health Care Services
11a. FSCs:		
11b. SICs:		

12. Description of Requirement:

Section V

(All business Sectors other than Systems)

The rating assigned to an element/sub-element must be supported by narrative rationale. Narratives are required for all ratings, and must clearly convey to the contractor, as well as to a Government source selection official who is not familiar with the instant contract, why the rating was assigned. This is especially important for any rating above or below "satisfactory." Narratives should be supported by quantifiable or verifiable documentation. While larger or more complex efforts warrant greater detail, the guideline for any narrative is "clear and concise."

14a. Quality of Product/Service

Rating: (check one)

- ☐ Exceptional
- ☐ Very Good
- ☐ Satisfactory
- ☐ Marginal
- ☐ Unsatisfactory

Narrative rationale:

14b. Schedule

Rating: (check one)

- ☐ Exceptional
- ☐ Very Good
- ☐ Satisfactory
- ☐ Marginal
- ☐ Unsatisfactory

Narrative rationale:

14c. Cost Control

Rating: (check one)

- ☐ Exceptional
- ☐ Very Good
- ☐ Satisfactory
- ☐ Marginal
- ☐ Unsatisfactory

Narrative rationale:

14d. Business Relations

Rating: (check one)

- ☐ Exceptional
- ☐ Very Good
- ☐ Satisfactory
- ☐ Marginal
- ☐ Unsatisfactory

Narrative rationale:

14e. Management of Key Personnel

Rating: (check one)

- ☐ Exceptional
- ☐ Very Good
- ☐ Satisfactory
- ☐ Marginal
- ☐ Unsatisfactory

Narrative rationale: _____

14f. Other (Optional)

Rating: (check one)

- ☐ Exceptional
- ☐ Very Good
- ☐ Satisfactory
- ☐ Marginal
- ☐ Unsatisfactory

Narrative rationale: _____

Section VI

15. Evaluator Name: Phone: FAX: E-Mail:	Signature: Date Approved by Evaluator:
16. Contracting Officer/PM Name: Phone: FAX: E-Mail:	Signature: Date Approved by Evaluator:
17. Agency Review Name: Phone: FAX: E-Mail:	Signature: Date Approved by Evaluator:
18. Contractor Review Name: Position/Title: Phone: FAX: E-Mail:	Comments provided? ☐ Yes ☐ No If YES, indicate number of pages attached ( ) Date of Receipt of Contractor Response: _____
19. Resolution Authority Name: Phone: FAX: E-Mail:	Date Referred: _____ Date of Resolution: _____
20. Source Selection Availability Date of Final Review: _____	Date PAR entered into PPIMS: _____

Section V

Non-Systems Contracts Performance Elements: Assess contractor performance using the following elements:

14a. **Quality of Product or Service** - Assess the contractor's conformance to contract requirements, specifications and standards of good workmanship (e.g., commonly accepted technical, professional, environmental, or safety and health standards).

14b. **Schedule** - Assess the timeliness of the contractor against the completion of the contract, task orders, milestones, delivery schedules, administrative requirements (e.g. efforts that contribute to or effect the schedule variance).

14c. **Cost Control** (Not required for FFP and FFP w/EPA contracts) - Assess the contractor's effectiveness in forecasting, managing and controlling contract cost.

14d. **Business Relations** - Assess the integration and coordination of all activity needed to execute the contract, specifically the timeliness, completeness and quality of problem identification, corrective action plans, proposal submittals, the contractor's history of reasonable and cooperative behavior, customer satisfaction, timely award and management of subcontracts, and whether the contractor met small/small disadvantaged and women-owned business participation goals.

14e. **Mananernent of Key Personnel** (For services and information technology contracts only) -Assess the contractor's performance in selecting, retaining, supporting, and replacing, when necessary, key personnel

***Rating System:** use the following rating system to assess contractor performance for . **all PPI elements (14a. through 14e.)**:

(1) **Exceptional** - Performance meets contractual requirements and exceeds many to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.

(2) **Very Good** - Performance meets contractual requirements and exceeds some to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective.

(3) **Satisfactory** - Performance meets contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.

(4) Marginal - Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.

(5) **Unsatisfactory** - Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or subelement contains serious problem(s) for which the contractor's corrective actions appear or were ineffective.

The rating* assigned to an element/sub-element must be supported by narrative rationale. Narratives are required for all ratings, and must clearly convey to the contractor, as well as to a Government source selection official who is not familiar with the instant contract, why the rating was assigned. This is especially important for any rating above or below "satisfactory." Narratives should be supported by quantifiable or verifiable documentation. While larger or more complex efforts warrant greater detail, the guideline for any narrative is "clear and concise."

52.203-2	Certificate Of Independent Price Determination	APR 1985
52.203-11	Certification And Disclosure Regarding Payments To Influence Certain Federal Transactions	APR 1991
52.204-3	Taxpayer Identification	OCT 1998
52.204-5	Women-Owned Business (Other Than Small Business)	MAY 1999
52.209-5	Certification Regarding Debarment, Suspension, Proposed Debarment, And Other Responsibility Matters	DEC 2001
52.219-1 Alt I	Small Business Program Representations (Apr 2002) Alternate I	APR 2002
52.222-22	Previous Contracts And Compliance Reports	FEB 1999
52.222-25	Affirmative Action Compliance	APR 1984
52.222-38	Compliance With Veterans' Employment Reporting Requirements	DEC 2001
52.223-13	Certification of Toxic Chemical Release Reporting	OCT 2000
252.209-7001	Disclosure of Ownership or Control by the Government of a Terrorist Country	MAR 1998
252.225-7000	Buy American Act--Balance Of Payments Program Certificate	SEP 1999
252.247-7022	Representation Of Extent Of Transportation Of Supplies By Sea	AUG 1992

Small, Veteran-Owned Small, Service Disabled Veteran-Owned Small, Hubzone Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan

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52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(d) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

(c) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provison _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after

December 23, 1989,--

(1) 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 awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) 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 this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(e) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

“Common parent,” as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

“Taxpayer Identification Number (TIN),” as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) 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 IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) 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.

(d) 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.

(e) 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 _____

(f) Common parent.

___ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

___ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern 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 its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND

OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

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

(B) 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 public (Federal, state, or local) 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

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 336611.

(2) The small business size standard is 1000 employees.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

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

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(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.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a women-owned small business concern.

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

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(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 (b)(6)(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.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) 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 of 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.

(c) Definitions. As used in this provision--

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 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 the size standard in paragraph (a) of this provision.

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; or

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

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

(b) ( ) It has, ( ) has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that

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

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

(End of provision)

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

( ) (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

( ) (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

( ) (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

( ) (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

( ) (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(End of clause)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclosure such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.225-7000 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE
(SEP 1999)

(a) Definitions. Domestic end product, qualifying country, qualifying country end product, and qualifying country end product have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.

(b) Evaluation. Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products.

(c) Certifications. (1) The Offeror certifies that--

(i) Each end product, except those listed in paragraphs (c) (2) or (3) of this provision, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror certifies that the following end products are qualifying country end products:

Qualifying Country End Products

Line Item Number	Country of Origin
_____	_____

(List only qualifying country end products.)

(3) The Offeror certifies that the following end products are nonqualifying country end products:

Nonqualifying Country End Products

Line Item Number	Country of Origin (If known)
_____	_____

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

SMALL, VETERAN-OWNED SMALL, SERVICE-DISABLED VETERAN-OWNED SMALL, HUBZONE SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN

DATE:_____

CONTRACTOR: _____
ADDRESS: _____
SOLICITATION OR CONTRACT NUMBER: _____
ITEM/SERVICE: _____

1. (a) The following percentage goals (expressed in terms of a percentage of total planned subcontracting dollars) are applicable to the contract cited above or to the contract awarded under the solicitation cited.

(i) Small Business Concerns: _____% of total planned subcontracting dollars under this contract will go to subcontractors who are small business concerns.

(ii) Veteran-Owned Small Business Concerns: _____ % of total planned subcontracting dollars under this contract will go to subcontractors who are veteran-owned small business concerns.

(iii) Service-Disabled Veteran-Owned Small Business Concerns: _____% of total planned subcontracting dollars under this contract will go to subcontractors who are service-disabled veteran-owned small business concerns.

(iv) HUBZone Small Business Concerns: _____ % of total planned subcontracting dollars under this contract will go to subcontractors who are small business concerns located in a historically underutilized business zone which is an area located within one or more qualified census tracts, qualified nonmetropolitan counties, or lands within the external boundaries of an Indian reservation and appear on the List of Qualified HUBZone Small Business Concerns maintained by the SBA. (http://www.sba.gov/hubzone/).

(v) Small Disadvantaged Business Concerns: _____% of total planned subcontracting dollars under this contract will go to subcontractors who are small concerns owned and controlled by socially and economically disadvantaged individuals. This percentage is included in the percentage shown under 1.(a)(i) above, as a subset.

(vi) Women-Owned Small Business Concerns: _____% of total planned subcontracting dollars under this contract will go to subcontractors who are women-owned small business concerns. This percentage is included in the percentage shown under 1.(a)(i) above, as a subset.

(b) The following dollar values correspond to the percentage goals shown in (a) above.

(i) Total dollars planned to be subcontracted to small business concerns:

$_____.

(ii) Total dollars planned to be subcontracted to veteran-owned small business concerns:
$_____.

(iii) Total dollars planned to be subcontracted to service-disabled veteran-owned small business concerns:
$_____.

(iv) Total dollars planned to be subcontracted to HUBZone small business concerns:
$_____.

(v) Total dollars planned to be subcontracted to small disadvantaged business concerns:
$_____. This dollar amount is included in the amount shown under 1.(b)(i) above, as a subset.

(vi) Total dollars planned to be subcontracted to women-owned small business concerns:
$_____. This dollar amount is included in the amount shown under 1.(b)(i) above, as a subset.

(c) The total estimated dollar value of all planned subcontracting (to all types of business concerns) under this contract is $_____.

(d) The following principal products and/or services will be subcontracted under this contract, and the distribution among small, veteran-owned small, service-disabled veteran-owned small, HUBZone small business, small disadvantaged, and women-owned small business concerns is as follows:

(Products/services planned to be subcontracted to small business concerns are identified by *, veteran-owned small business concerns by **, service-disabled veteran-owned small by ***, HUBZone small business concerns by ****, small disadvantaged business concerns by ***** and women-owned small business concerns by ******)

_____

_____

_____

_____

_____

_____

(Attachment may be used if additional space is required)

(e) The following method was used in developing subcontract goals (i.e., statement explaining how the product and service areas to be subcontracted were established, how the areas to be subcontracted to small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business concerns were determined, and how small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business concerns capabilities were determined, to include identification of source lists utilized in making those determination).

(f) Indirect and over head costs [_____] have [_____] have not been included in the goals specified in 1(a) and 1(b).

(g) If "have" is checked, explain the method used in determining the proportionate share of indirect and overhead cost to be allocated as subcontracts to small business concerns, veteran-owned small, service-disabled veteran-owned small, service-disabled veteran-owned small, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

_____

_____

_____

_____

_____

2. The following individual will administer the subcontracting program:

Name: _____
Address & Telephone: _____
Telephone: _____

This individual's specific duties, as they relate to the firm's subcontracting program are as follows:

General overall responsibility for this company's Small Business Program, the development, preparation and execution of individual subcontracting plans and for monitoring performance relative to contractual subcontracting requirements contained in this plan, including but not limited to:

(a) Developing and maintaining bidders lists of small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business concerns from all possible sources.

(b) Ensuring that procurement packages are structured to permit small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business concerns to participate to the maximum extent possible.

(c) Assuring inclusion of small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business concerns in all solicitations for products or services which they are capable of providing.

(d) Reviewing solicitations to remove statements, clauses, etc., which may tend to restrict or prohibit small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business participation.

(e) Ensuring periodic rotation of potential subcontractors on bidders lists.

(f) Ensuring that the bid proposal review board documents its reasons for rejecting low bids submitted by small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business concerns.

(g) Ensuring the establishment and maintenance of records of solicitations and subcontract award activity.

(h) Attending or arranging for attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.

(i) Conducting or arranging for conduct of motivational training for purchasing personnel pursuant to the intent of P.O. 95-507.

(j) Monitoring attainment of proposed goals.

(k) Preparing and submitting periodic subcontracting reports required.

(l) Coordinating contractor's activities during the conduct of compliance reviews by Federal Agencies.

(m) Coordinating the conduct of contractor's activities involving its small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business subcontracting program.

(n) Additions to (or deletions from) the duties specified above are as follows:

_____

_____

_____

_____

_____

3. The following efforts will be taken to assure that small, veteran-owned small, service-disabled veteran-owned small, HUBZone, small, small disadvantaged, and women-owned business concerns will have an equitable opportunity to compete for subcontracts:

(a) Outreach efforts will be made as follows:

(i) Contacts with minority and small business trade associations

(ii) Contacts with business development organizations

(iii) Attendance at small and minority business procurement conferences

(iv) Sources will be requested from SBA's PASS system.

(b) The following internal efforts will be made to guide and encourage buyers:

(i) Workshops, seminars and training programs will be conducted

(ii) Activities will be monitored to evaluate compliance with this subcontracting plan.

(c) Small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business concern source lists, guides and other data identifying small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business concerns will be maintained and utilized by buyers in soliciting subcontracts.

(d) Additions to (or deletions from) the above listed efforts are as follows:

_____

_____

_____

_____

_____

4. The bidder (contractor) agrees that the clause entitled Utilization of Small, veteran-owned small, service-disabled veteran-owned small, HUBZone Small, Small Disadvantaged, and Women-Owned Small Business Concerns will be included in all subcontracts which offer further subcontracting opportunities, and all subcontractors except small business concerns who receive subcontracts in excess of $500,000 will be required to adopt and comply with a subcontracting plan similar to this one. Such plans will be reviewed by comparing them with the provisions of Public Law 95-507, and assuring that all minimum requirements of an acceptable subcontracting plan have been satisfied. The acceptability of percentage goals shall be determined on a case-by-case basis depending on the supplies/services involved, the availability of potential small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned subcontractors, and prior experience. Once approved and implemented, plans will be monitored through the submission of periodic reports, and/or, as time and availability of funds permit, periodic visits to subcontractors facilities to review applicable records and subcontracting program progress.

5. The bidder (contractor) agrees to submit such periodic reports and cooperate in any studies or surveys as may be required by the contracting agency or the Small business Administration in order to determine the extent of compliance by the bidder with the subcontracting plan and with the clause entitled Utilization of Small, veteran-owned small, service-disabled veteran-owned small, HUBZone Small, Small Disadvantaged, and Women-Owned Small Business Concerns, contained in the contract.

6. The bidder (contractor) agrees that he will maintain at least the following types of records to document compliance with this subcontracting plan:

(a) Small, veteran-owned small, service-disabled veteran-owned small, HUBZone Small, Small Disadvantaged, and Women-Owned Business concern source lists, guides and other data identifying SB/HZSB/SDB/WO vendors.

(b) Organizations contacted for small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned business sources.

(c) On a contract-by-contract basis, records on all subcontract solicitations over $100,000, indicating on each solicitation (1) whether small business concerns were solicited, and if not, why not; (2) whether veteran-owned small business concerns were solicited, and if not, why not, (3) whether service-disabled veteran-owned small business concerns were solicited, and if not, why not; (4) whether HUBZone small business concerns were solicited, and if not, why not; (5) whether small disadvantaged business concerns were solicited, and if not, why not; (6) whether women-owned business concerns were solicited and if not, why not; and (7) reasons for the failure of solicited small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, or women-owned business concerns to receive the subcontract award.

(d) Records to support other outreach efforts: Contacts with Minority and Small Business Trade Associations, etc. Attendance at small and minority business procurement conferences and trade fairs.

(e) Records to support internal activities to guide and encourage buyers: Workshops, seminars, training programs, etc. Monitoring activities to evaluate compliance.

(f) On a contract-by-contract basis, records to support subcontract award data to include name and address or subcontractor .

(g) Records to be maintained in addition to the above are as follows:

_____

_____

_____

_____

Signed: _____
Typed Name: _____
Title: _____
Date: _____

Plan Accepted By: _____
Contracting Officer

Date: _____

NOTE TO CONTRACTING OFFICER: Upon incorporation of a plan into the contract, indicate herein the estimated dollar value of the contract:

$ _____.

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SECTION L Instructions, Conditions and Notices to Bidders

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L-1 CLAUSES INCORPORATED BY FULL TEXT

A. 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

(1) Company name.

(2) Company address.

(3) Company telephone number.

(4) Line of business.

(5) Chief executive officer/key manager.

(6) Date the company was started.

(7) Number of people employed by the company.

(8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at http://www.customerservice@dnb.com/. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@dnb.com.

(End of provision)

B. 52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (MAY 2001)

(a) Definitions. As used in this provision--

"Discussions" are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

In "writing or written" means any worded or numbered expression that can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

"Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

"Time," if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals.

(1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages

(i) Addressed to the office specified in the solicitation, and

(ii) Showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror.

Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show--

(i) The solicitation number;

(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);

(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, or revision, of proposals.

(i) Offerors are responsible for submitting proposals, and any modifications, or revisions, 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 proposal or revision is due.

(ii)(A) Any proposal, modification, or revision 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--

(1) 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 proposals; or

(2) 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

(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

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

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals 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.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--

(1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award.

(1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) The Government may disclose the following information in post award debriefings to other offerors:

(i) The overall evaluated cost or price and technical rating of the successful offeror;

(ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;

(iii) A summary of the rationale for award; and

(iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(End of provision)

C. 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm, fixed price contract resulting from this solicitation.

(End of provision)

D. 52.232-13 NOTICE OF PROGRESS PAYMENTS (APR 1984)

The need for customary progress payments conforming to the regulations in Subpart 32.5 of the Federal Acquisition Regulation (FAR) will not be considered as a handicap or adverse factor in the award of the contract. The Progress Payments clause included in this solicitation will be included in any resulting contract, modified or altered if necessary in accordance with subsection 52.232-16 and its Alternate I of the FAR. Even though the clause is included in the contract, the clause shall be inoperative during any time the contractor's accounting system and controls are determined by the Government to be inadequate for segregation and accumulation of contract costs.

(End of clause)

E. 52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Mr. Robert Sharamatew, Chief, Contracting Division
U.S. Army Corps of Engineers, Philadelphia District
Wanamaker Building
100 Penn Square East, Rm 643 South
Philadelphia, PA 19107-3390

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

L-2 PROPOSAL REQUIREMENTS AND EVALUATION CRITERIA

A. GENERAL REQUIREMENTS

Offerors shall submit three copies of the entire Proposal for evaluation. The Proposal shall include an index of the complete Proposal to identify the content, and to assist in locating the specific elements or topics required to be addressed by the Offerors as outlined in this Section. Page separators or tabs can be used.

Page B-1 of the Solicitation must be filled in and included with the Proposal to reflect the offered price. This page is the Price Proposal, and must be separate or separable from the rest. Price information shall only be displayed on page B-1 and shall not be included anywhere else within the Proposal, to allow for the review by the Government representatives to take place without the influence of price.

If an award is not made based on initial submittals, a reverse auction process will be used for price negotiations. This process is detailed in contract Section H.

The Offerors are advised that each Proposal submitted must be complete, and shall be organized to address the specific elements or topics required, in the sequence outlined in this Section. This is necessary to facilitate and expedite an effective review.

Offerors that submit Proposals that are not complete, may or may not be given the opportunity to submit any additional material, and may be considered non-responsive. As a minimum, the information required in this Section shall be included in each Proposal submitted. Additional data, which would serve to clarify the Proposal, should also be submitted. Any other information deemed necessary by the Contracting Officer for a clear understanding of the Proposal shall be furnished if requested.

Proposals shall not include alternative features offered as options within the Proposal. Each Proposal must be clear as to the services and features to be offered without contingency. This will facilitate a fair and equitable review and evaluation. The same Offeror, however, may send in more than one complete Proposal, to propose alternative features and price.

The Proposals will be reviewed for completeness and evaluated on their merit against the evaluation factors listed below.

Technical Factors:	**Price Factor:**
Product	Price Reasonableness
Past Performance and Experience	Price Realism
Management	

The Technical Factors as a whole are more important than Price, however, Price remains a significant factor in determining "Best Value." This procurement is budgeted at 5.0 Million U.S. dollars.

B. TECHNICAL FACTORS

B1. PRODUCT EVALUATION CRITERIA

Offerors are required to meet the standards and requirements of Section C of this Request for Proposal. Beyond meeting those requirements, the product offered will be evaluated on the technical criteria identified below.

Quality of Product

- Selection of proven, reliable equipment and materials suited for the application
- Use of robust design features and materials
- Machinery arrangements and vessel design features that facilitate maintenance and operation
- Use of current dredge technology in the design and materials of the dredge pump and other dredging related features, such as dredging controls
- Suitability and quality of outfitting items
- Features that create an "environmentally friendly" dredge and minimize the possibility of environmental contamination due to spills, oil leakage, noise and engine exhaust emissions
- Enhanced safety features such as fire protection features, protection from electrical system failures and hazards, and provisions for egress from interior spaces
- Use of standard components
- Availability of dredge system wear parts

Performance

- Dredge production
- Dredge pump efficiency ratings. (The Government understands that the minimum sphere clearance required in Section C will affect pump efficiency; nevertheless, the highest possible efficiency within this constraint is desired.)
- Swing winch performance - line speed and pull
- Cutterhead performance – torque and hp
- Provision of dredge positioning and pump control features that maximize dredge efficiency and facilitate easy and reliable operation

B2. PRODUCT PROPOSAL SUBMITTAL REQUIREMENTS

List of Proposed Deliverables

The purpose of this submittal is for the Government to evaluate the completeness and extent of the engineering drawings and data that will be furnished during the engineering phase of the contract and prior to construction. The Offeror shall furnish a list of the drawings and engineering data that will be developed and provided to the government after contract award, during the Engineering Phase of the contract.

Satisfaction of the Product Evaluation Criteria

The Offeror shall describe the way that the dredge satisfies the evaluation criteria listed in paragraph B1 (Product Evaluation Criteria). When addressing the criterion of Performance, the Offeror shall specifically provide:

- Dredge production rates when dredging medium sand (d_{50} = 400-600 microns) at 10, 20 and 25-foot dredging depths, with 20-inch I.D. pipeline at discharge lengths between 500 and 5000 feet. Assume 100% dredge efficiency and in situ material having a specific gravity of 2.1.
- Dredge pump performance curve showing hp, efficiency, TDH and NPSHR at maximum rated rpm of the pump driver
- Dredge production rates when dredging at a 10, 20 and 25-foot dredging depths with the booster pump in line and between 5,000 and 10,000 feet of 20-inch I.D. pipeline. Assume 100% dredge efficiency and in situ material having a specific gravity of 2.1.
- Engine air emission standards met
- Any features to prevent contamination of the waterway by oil leakage/spills
- Tank capacities
- Intact and damaged stability criteria that will be met
- Features to reduce noise and vibration. Noise characteristics of the dredge at the operator's station, on the open deck and the machinery spaces.
- Hull and deck structural features, including plating thickness, types of welds, equipment lifting pads and removal hatches, personnel access/egress hatches, etc
- Fire alarm and protection systems
- Tank construction and level indicating systems provided
- Features used to handle contaminants in fuel oil, lube oil and hydraulic oil
- Specifics about dredging control and monitoring systems
- Specifics about paint systems to be used
- Insulation and joiner work and sheathing used in machinery spaces and control room
- Types and materials of interior and exterior doors and windows to be used
- Types of deck fittings
- Description and performance (hp, speed, max swing angle, etc.) of ladder hoist and swing winches and spud handling equipment. Indicate wind and current design conditions used for sizing the swing winches and their drives.
- Interior and exterior deck coverings used

- Lifesaving equipment
- Type capstans used
- Make and model of all engines and reduction gears, as well as features
- Provisions for handling oily bilges and waste oil
- HVAC features (types, locations and ratings of equipment).
- Description of ship service electrical plant, including diesel generators, primary and secondary AC power distribution systems, and DC systems
- Dredge pump design features, including bearings, shaft, stuffing box or seal; impeller vanes and sphere clearance; and hardness and percentage elongation of materials used for the impeller, casing and head liners. The philosophy of repair vs. replacement of the major parts.
- Cutter design features, including materials used
- Features of the electrical and/or hydraulic systems to achieve variable speed control. For variable speed electric drives describe features used to ensure compatibility with the generator set and to prevent electrical noise interference.

Drawings

Included with the proposal shall be scaled drawings of outboard profile, general and machinery arrangements, and control room arrangement. Drawings shall provide dredge dimensions, including draft, height above waterline, machinery and tank spaces, control room, rest room, and the area designated for the workshop (actual workshop will be added at a future date).

Major Equipment

The proposal shall provide a thorough description of major equipment and systems offered (e.g., power generation and distribution systems, dredging systems, control systems, hydraulic systems, cooling systems) and indicate any shop tests that will be performed during construction. Included documentation shall be:

- Manufacturers, model numbers and sizes/ratings for engines and/or motor drives, dredge pump, cutter head drive, major hydraulic components, generators, swing and ladder winches, control systems, and any other major equipment components. Dredge pump construction and materials, including maximum impeller sphere clearance.
- Cross-section view of dredge pump showing bearings, impeller, liners, casing, etc.
- Drawings of dredge suction and discharge line arrangement to show construction and components.
- Description of automatic dredging control systems, including components used and expected performance.
- Drawings and description of the traveling spud and carriage.
- Drawings and description of the cutterhead and drive.
- Drawings and description of the winches (swing and ladder hoist).
- Dredge production chart – yd^3/hr vs. ft of pipeline. See Requirement above.
- Dredge pump performance curve. See Requirement, above.

B3. PAST PERFORMANCE AND EXPERIENCE EVALUATION CRITERIA

Past Performance means the offeror's rating in formalized Government or customer surveys, including the Governments assessment of performance in any previous contracts if applicable.

Contracts terminated by convenience of the Government in the past three years, and/or Contracts terminated for default in the past 5 years shall be reported if applicable.

Demonstrated experience during the past five years in construction of vessels of similar type and equivalent level of complexity will be evaluated.

The Government may at its discretion contact representatives of customers to obtain input pertaining to past performance.

B4. PAST PERFORMANCE AND EXPERIENCE SUBMITTAL REQUIREMENTS

The Offeror shall provide a discussion of the organization's Past Performance, making reference to ratings in formalized Government or customer surveys as applicable. List any contract that was terminated for convenience of the Government within the past three years, and/or any contract terminated for default during the past 5 years.

The Offeror shall also provide a discussion of the organization's experience during the past five years in the design, construction and testing of cutterhead suction dredges. The Offeror shall describe the principal dimensions and pump power requirements of the dredges built, and shall provide a list of customers. Included in the list of customers shall be points of contact for reference, as well as telephone numbers where they may be reached.

B5. MANAGEMENT EVALUATION CRITERIA

The Management Evaluation Criterion for Award shall be the capability demonstrated by the Offeror to successfully perform and respond to the requirements of this project.

The Offeror shall demonstrate in the Proposal that his Organization has the proper design, quality assurance, production, financial and managerial resources available, and has proposed sufficient resources to successfully perform the work required.

B6. MANAGEMENT PROPOSAL SUBMITTAL REQUIREMENTS

The following topics must be addressed in narrative form. Drawings or pictures to convey the information are encouraged. Each topic shall be addressed to the degree necessary to provide the reviewers with a clear understanding. As a minimum the information requested below shall be included in each Proposal submitted:

Organization

The Offeror shall provide clear and complete information on the organization as follows:

- Name and type of company.
- Brief history of company.
- Principal ownership, subsidiaries, and corporate affiliations.

Human Resources for this Project

The Offeror shall furnish resumes of the key design, construction and managerial personnel that will be involved in this project, indicating:

- Academic/Professional qualifications.
- Experience in related type of work.
- Functional position and job description as it will apply to this project, for each key individual.

Facilities and Equipment

The Offeror shall furnish a description of the facilities and major equipment available and planned to be used on this project. Shop facilities/equipment shall be briefly described and clearly identified in layout drawings or pictures included in the Proposal.

Project Sub-Contracting Plan

If applicable, the Offeror shall describe the extent of sub-Contracting contemplated on this project, and the specific areas to be sub-Contracted.

If any part of Phase II - Engineering, is to be sub-Contracted, the Offeror shall identify the sub-Contractor, and submit the resumes of the key personnel involved.

Project Quality Control Plan

The Offeror shall make a brief description of his Quality Control/Quality Assurance Organization, and how it will be applied to this project. Copy of ISO certification shall be provided, if applicable.

Project Planning / Schedule

The Offeror shall submit with his Proposal, a Plan of Action and Project Schedule, including duration in calendar days for his performance during:

- Phase I – Planning and Scheduling
- Phase II - Engineering
- Phase III - Construction, Testing and Delivery

The planning and scheduling information, shall demonstrate a logical, orderly and workable approach to the Project and the Contract.

Phase durations, as identified in the accepted Proposal, will be inserted into the Contract Phase Sequencing included in Section H, clause H01. Offered durations must be submitted in calendar day format, and shall not exceed those indicated in page H-5.

The Government will give Notice to Proceed with Phase II, within 15 days of completion of Phase I – Planning and Scheduling.

The Government will give Notice to Proceed with Phase III, within 30 days of completion of Phase II – Engineering.

After Contract Award, the Contractor is required to perform according to his proposed Project Schedule.

Financial Condition

Describe why the Government should be confident that this project will be successfully completed from a financial standpoint. Report briefly on the Offeror's financial resources.

C. PRICE FACTORS

C1. PRICE EVALUATION CRITERIA

The Price Evaluation Criteria for Award is "Price Reasonableness." The competitiveness of the Offeror's Price Proposal (page B-1) will be evaluated taking into consideration the most probable cost of doing business with the Offeror, based on the merits of the "Technical Proposal."

Price Realism will be evaluated to preclude financially front loading the contract and to assure that a mathematical imbalance between the price of the three phases does not exist. An award will not be made to an offeror with an unbalanced offer.

C2. PRICE SUBMITTAL REQUIREMENTS

Price Proposal

A price for the work outlined in this RFP for the three phases and for the entire job shall be provided with the Proposal by filling in page B-1 of this Solicitation. Note that page B-1 must be returned with the Proposal in separate, or be separable from the rest of the Proposal.

PART IV – REPRESENTATIONS & INSTRUCTIONS
SECTION M

EVALUTION FACTORS FOR AWARD

The Government intends to award a contract on the basis of "Best Value". The Government will award a contract resulting from this Request for Proposal to the responsible Offeror whose proposal, conforming to the Request for Proposal, will be most advantageous to the Government.

The Proposals will be reviewed for completeness against the content requirements outlined in Section L, and evaluated against the evaluation factors listed below:

1. Technical Factors:

- Product
- Past Performance and Experience
- Management

2. Price Factors:

- Price Reasonableness
- Price Realism

Further discussion of these factors, format and specific topics to be addressed in the proposal, are listed and described in Section L, Instructions, Conditions & Notices To Offerors, which contains the specific proposal submittal requirements pursuant to this Request for Proposal. Offerors are advised that each proposal submitted shall be complete and in the format required, with information organized as specified in Section L.

The Government may award a contract on the basis of initial proposals received without discussions; therefore, each initial proposal should contain the Offeror's best terms.

The Government reserves the right to award the contract to the Offeror whose proposal is not the lowest price.

52.217-5 EVALUATION OF OPTIONS (JULY 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(End of Provision)