

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING	PAGE OF PAGES 1 97
2. CONTRACT NO.		3. SOLICITATION NO. DACW61-02-R-0042		4. TYPE OF SOLICITATION [] SEALED BID (IFB) [X] NEGOTIATED (RFP)	
5. DATE ISSUED 16 Jul 2002		6. REQUISITION/PURCHASE NO. W25PHS-2144-8417			
7. ISSUED BY US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BLDG, 100 PENN SQ EAST PHILADELPHIA PA 19107-3390		CODE DACW61	8. ADDRESS OFFER TO (If other than Item 7) See Item 7		CODE
TEL: FAX:		TEL: FAX:			

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

SOLICITATIO

9. Sealed offers in original and 1 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 Room 643 until 00 00 local time 15 Aug 2002
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME SANDRA G FLETCHER	B. TELEPHONE (Include area code)(NO COLLECT CALLS) 215-656-6915	C. E-MAIL ADDRESS Sandra.G.Fletcher@usace.army.mil
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OFFER (Must be fully completed by

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

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
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15B. TELEPHONE NO (Include area code)	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. <input type="checkbox"/>	17. SIGNATURE	18. OFFER DATE
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AWARD (To be completed by

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 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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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 52.204-7004 "REQUIRED CENTRAL CONTRACTOR REGISTRATION" 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 {A late bid guarantee is treated the same as a late 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 and are all required seals affixed? A bid guarantee is required when your bid exceeds \$100,000.00.
- 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 \$1,000,000.00 have you included your Sub-Contracting Plan in your bid package? {NOTE: AN AWARD WILL NOT BE MADE WITHOUT AN APPROVED SUB-CONTRACTING PLAN. IN ORDER TO BE APPROVED YOUR PLAN MUST DESIGNATE 5% OF THE TOTAL SUB-CONTRACTING DOLLARS TO SMALL DISADVANTAGED BUSINESSES}.
- 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.

July 02, 1998

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**US Army Corps
of Engineers**

Marine Design Center

SPECIFICATIONS

to

**DESIGN, CONSTRUCT,
TEST AND DELIVER**

ONE CRANE BARGE

SOLICITATION # DACW61-02-R-0042

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

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Design, Construct, Test and Deliver one crane barge in accordance with the attached specifications:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>QTY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
0001	<u>CRANE BARGE</u>	1	VESSEL	XXXXXX	XXXXXXXX
0001AA	PLANNING AND SCHEDULING (the submittals required for "Planning and Scheduling" are listed in Contract clause H02. This item is initiated by a Notice To Proceed (NTP) issued by the Contracting Officer after receipt of bonding requirements after Award of the Contract.)	1	JOB	XXXXXX	\$ _____
0001AB	ENGINEERING (The submittals required for "Engineering" are listed in Contract clause H02. This item is initiated by a Notice To Proceed issued by the Contracting Officer after satisfactory completion of item 0001A. The Contractor may not start this item until he receives the NTP.)	1	JOB	XXXXXX	\$ _____
0001AC	CONSTRUCTION, TESTING, AND DELIVERY (The submittals required for "Construction, Testing, and Delivery @ Origin" are listed in Contract clause H02. This item is initiated only by a Notice To Proceed issued by the Contracting Officer after satisfactory completion of Item 0001B. The Contractor may not start this item until he receives the Notice To Proceed.)	1	JOB	XXXXXX	\$ _____
TOTAL FOR ITEM 0001		1	VESSEL	XXXXXX	\$ _____

INSERT LOCATION OF THE FACILITY 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 bid item or combination of bid 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.

Refer to Section L and M for Evaluation and Award criteria.

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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 PROJECT MANAGEMENT

C001 GENERAL MISSION STATEMENT

The Marine Design Center (MDC) of the U.S. Army Corps of Engineers (USACE) has issued this solicitation to acquire a non-propelled inland river and intracoastal crane barge, conforming to commercial standards. The vessel is intended to serve the U.S. Army Corps of Engineers, Huntington District in support of its mission.

A. MISSION

The primary mission of the crane barge shall be the year-round support to the expanding Repair Fleet on the Ohio and Kanawha Rivers.

B. ENVIRONMENTAL CONSIDERATIONS

The vessel shall be capable of operating year round on the Ohio and Kanawha navigable rivers in, and adjacent to, the Huntington District Boundaries.

C003 DESIGN STANDARDS

The crane barge 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”. <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 “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”.
- U.S. Coast Guard Regulation 46 CFR Subchapter C – “Uninspected Vessels” (but not for electrical design or installation).
- U.S. Coast Guard Regulation 46 CFR Subchapter J - “Electrical Engineering”.
- U.S. Coast Guard Regulation 46 CFR Subchapter S – “Subdivision & Stability”.
- U.S. Coast Guard, Navigation Rules, International and Inland.
- U.S. Coast Guard Regulation 33 CFR Part 164, Navigation Safety Regulations.
- API Specification 2C
- 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 AND CERTIFICATION

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

- ABS Classification for “Maltese Cross A-1 Barge, River Service, Reinforcement “B” with crane service notation to be placed in “Column 5”.
- U.S. Public Health Service (FDA) Certificate of Sanitary Construction.

The Contractor shall obtain an ABS Statement Of Fact Letter verifying that the entire crane foundation and associated hull structure meet all ABS rule requirements for the applied crane loads.

The Contractor shall bear all expenses associated with the acquisition of the required classing and certifications.

If the Contractor intends to launch, test, operate, or tow the vessels “out of class”, the Contractor must specifically advise ABS of such intent and incorporate any and all modifications required by the agency for such operation at no additional cost to the Government and at 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 number:

MDC Hull Number 569
MDC Project Number 2313
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 title used shall be:

“DERRICKBOAT 49 REPLACEMENT”

C006 SCOPE OF WORK

A. CONTRACTOR'S RESPONSIBILITY

The contract consists of three phases:

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 vessel to meet the requirements of this 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.

B. CONTRACT INTENT

It is intended that the Contractor shall be able to bid, and perform further design development of the vessel from the Concept Design provided by the Contract specifications and plans. The drawings represent the first stage of the design process and are issued for guidance only.

The plans and specifications delineate a "Concept Design" for the subject vessel, which is the first stage in the design process. General arrangements, tankage, flotation and stability have been engineered sufficiently to verify feasibility, and to achieve an adequate level of confidence that the crane barge design can be developed to meet the performance, operational requirements and the design objectives of the U.S. Army Corps of Engineers.

The plans and specifications of this contract have been prepared in accordance with the referenced design standards. The plans and specifications have not been submitted to ABS, USCG, or USPHS for approval. The Contractor shall prepare a Detail Design and submit this design for approval to ABS, USPHS, and USACE.

C. DETAIL DESIGN

During Phase II, Engineering & Scheduling, it is the Contractor's responsibility to complete the Detail Design of the vessel based on the "Concept Design" developed for the vessel. The Detail Design is the basis for construction and is always completed prior to the start of construction.

Once the Detail Design phase has commenced, changes in hull dimensions and subdivision, for other than very minor changes in arrangement, shall not be made.

The Detail Design must be so clear in its intent that the features, characteristics, capabilities, design criteria, margins and success criteria of each component or system cannot be mistaken. The level of detail presented and documented by calculation in the final design shall be sufficient for all required regulatory approvals, and for the Government's quality assurance function.

Detailed submittals for review by Regulatory Agencies and ABS (for compliance with classification and certification requirements), inspection, testing, classification, and all associated costs are the responsibility of the Contractor.

D. DRAWINGS PROVIDED & REQUIRED

1. Contract Drawings

The contract drawings of the "Concept Design" are listed in Section J, Clause J01, Contract Drawings. The contract drawings are provided with these specifications for bid purposes as well as guidance to develop the Detail Design.

2. Drawings Required

The minimum drawings required to be completed during the Engineering and Scheduling phase of this contract in order to complete the Detail Design are listed in Section H, Clause H13, Engineering & Drawings. The requirements for developing the Detail Design drawings are delineated in Clause H03 with any specific requirements for structure or mechanical systems defined in their relevant contract clauses.

The requirements for as-built drawings of the completed vessel are defined in Section H, Clause H14, As-Built Drawings.

In addition to the drawings in Clause H13, the Contractor is also required to develop all drawings and associated calculations required for ABS Class and Statement of Fact purposes.

C010 DEFINITIONS

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

- KO - 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.
- USACE - Acronym for United States Army Corps of Engineers.
- MDC - Acronym for Marine Design Center.
- GFE - Government Furnished Equipment - Equipment, materials or components furnished by the Government to the Contractor for installation in the vessel.
- QC - Quality Control - Quality Control is a function of the Contractor. Refer to clause E03. Quality Assurance (QA) is a function of the Government.

C025 CONTRACTOR QUALITY STANDARDS

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

Only welders who have successfully passed qualification tests accepted by the American Bureau of Shipping or other regulatory bodies acceptable to ABS shall do all welding under this contract.

The Contractor shall bear the expense of conducting these tests and shall certify, by name to the COR, 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 COR, 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 COR.

E. WELDING

All welding shall be in accordance with the current rules of the American Bureau of Shipping. 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 COR.

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. Workmen skilled in this type of work shall accomplish the installation.

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.

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

All sharp edges or projections, which 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.

C100 SCIENTIFIC

C105 HULL GEOMETRY

A. GENERAL

The hull geometry is defined as shown on the Contract drawings.

The barge shall be double ended, double rake, flat-bottomed and wall-sided with 12” bilge radius, 6” gunwale radius all around, 18” corner radius and 10’-0” rake radius.

The deck shall have 6” straight-line camber.

B. PRINCIPAL CHARACTERISTICS (CONCEPTUAL)

Length, Molded	55'-0”
Length, Preferred	52'-0”
Length, Maximum	110'-0”
Beam, Molded (Firm)	52'-0”
Depth, Molded at side	9'-0”
Draft (Full Load)	~4'-6”
Air Draft (Maximum above water)	43'-6”

C115 WEIGHT ESTIMATE & CG CONTROL

A. LIGHTSHIP WEIGHT & CG

The following is a conceptual lightship weight for guidance use only, which was developed from the previous iteration of the design (52' x 52' x 8' hull) in which only minor adjustments were made to reflect the current configuration of the vessel.

Magnitude	575-KP
VCG, above vessel baseline	15.7-FT
LCG, aft frame 0	26.4-FT

This lightship estimate is based on the kingpost crane configuration as shown on the contract guidance drawing CRANE PROFILE 569-A205-02.

B. WEIGHT & CENTER OF GRAVITY ESTIMATES & MONITORING

The Contractor shall implement a careful weight estimating and monitoring procedure.

The Contractor shall develop and refine a light ship weight estimate during the design of the vessel.

If the anticipated draft and trim of the vessel are adversely impacted by unpredicted weight growth, the Contractor shall be obligated to determine the cause of the weight growth and take remedial action to adjust the weight and CG to ensure that the mission requirements of the vessel are met.

C. WEIGHT ESTIMATE

During the Engineering & Scheduling Phase of the contract, the Contractor shall prepare a detailed weight estimate for the vessel based on the vessel's Detail Design. Weights and centers of gravity shall be documented in a spreadsheet type format using the MDC Work Breakdown Structure (WBS).

The detailed weight estimate shall be complete with the longitudinal, transverse, and vertical location of the center of gravity of all items included in the estimate.

The Contractor shall maintain an updated weight estimate during the Engineering Phase. A revised (lightship) weight estimate shall be submitted to MDC at the conclusion of the Engineering Phase to ensure that the mission requirements of the vessel are met.

D. INCLINING

Upon completion of all work, with the vessel in the lightship condition, an inclining test shall be conducted. The inclining test shall be carried out in accordance with ASTM F1321-90. The Contractor shall provide an inclining report in accordance with this criterion that gives the “as inclined” and “lightship” load condition displacements and CG locations.

After the traditional weight movements, three (3) special crane movements shall be included in the inclining to measure the heeling moment of the upperworks and the boom point dead load.

C125 HYDROSTATICS & CURVES OF FORM

Hydrostatics calculations shall be performed for the vessel in fresh water at all possible drafts including light ship. Displacement shall be in KP of 1,000-pounds each.

Hydrostatics data for the current vessel configuration at 100% full load at the design water line is as follows:

Design Draft	4'-6"
Trim	0'-0"
Displacement, Molded in FW	745-KP
LCG (aft of Frame 0)	26.0-FT

The calculations shall be in tabular form and completed for drafts from 1 to 6-feet in 1-inch increments with the 6-foot data at the top of the table. The tabulated hydrostatic curves may be plotted on a standard D size drawing or 8-1/2 inch by 11 inch paper. Resulting calculations shall be presented in graphic form on a grid background. The curves are to include as a minimum:

- displacement in fresh water, full and molded
- center of buoyancy (LCB, VCB)
- tons per inch immersion (TPI)
- longitudinal center of floatation (LCF)
- transverse and longitudinal metacentric heights (KM_L , KM_T)
- moment to trim one inch (MT1")
- block, prismatic and waterplane coefficients (C_b , C_p , C_w)

The hydrostatics shall be performed using the GHS computer software (Creative Systems Inc., Port Townsend, WA (360) 385-6212). The hull definition file (or *.gf file) shall be provided in electronic format (on a 3.5 inch disk or CD ROM) with the hydrostatics submittal.

C130 COMPARTMENT CAPACITIES

The minimum tank capacities shall be as follows:

- Diesel Oil Storage Tank 5000 gallons
- Ballast Tank As needed

B. DESCRIPTION OF WORK

Sounding tables in gallons per inch shall be provided for all tanks in their final configuration. The sounding tables shall be presented in tabular form with one tank per page on 8 1/2" x 11" paper using the GHS computer software. Each table shall include the identity of the tank (as labeled on the drawings), its location in the vessel and the center of gravity (longitudinally, vertical and transversely) of the fluid at each sounding level. The compartmentation definition files shall be submitted in electronic format with the sounding tables.

C150 DAMAGED STABILITY

The vessel shall meet a one compartment damaged stability standard in the most critical transit loading condition where with any one compartment flooded, the vessel shall maintain positive righting arm and all parts of the hull above the margin line remain above the flooded waterline. The margin line shall be 3 inches below the main deck edge.

Damaged stability calculations shall show equilibrium water lines, curve of righting arm versus heel angle in 5-degree or less increments to capsize angle for each flooded compartment. The freeboard shall be reported at the four deck corners, and at each deck knuckle for each damaged condition.

The Contractor shall prepare a damaged stability analysis for the vessel during the Engineering Phase of this contract verifying compliance with this criterion. Any calculations showing a failure to meet this criteria shall be reported in a timely manner to the COR with recommendations for correction. The analysis shall be performed using the GHS computer software and all run files and macros used in calculating the damaged stability shall be submitted with the analysis in electronic format. The analysis shall be repeated using the lightship weight determined by the inclining experiment after completion of the vessel (prior to Final Acceptance).

The damaged stability calculations shall be presented in report form with a cover sheet complying with the drawing standards and including a drawing type title block. The report shall include a table of contents, summary, explanation of all assumptions and clear definition of origins and units used, and the finished calculations.

C155 INTACT STABILITY

A. GENERAL

This analysis shall determine the maximum allowable vertical center of gravity (KG) for the loaded crane barge over a range of operating drafts, which are in compliance with the stability criteria below.

B. STABILITY CRITERION

Intact stability calculations shall be performed for the vessel in accordance with U.S. Coast Guard Regulation 46 CFR Subchapter S, for protected routes or partially protected waters. Relevant criteria shall be as follows:

1. Lifting Criterion 46 CFR 173.20

In any loading condition of the vessel, and for any combination of hook load and crane radius, the vessel shall have an area under the righting arm curve of:

- At least 10 foot-degrees of righting energy to the smallest of the following angles:
 - a. Angle of Maximum Righting Arm
 - b. Angle of Down flooding
 - c. 40-degrees

2. Deck Cargo Barge Criterion 46 CFR 174.015

For operation on rivers and partially protected waters, such as on lakes, bays, sounds and Great Lakes summer service, any condition of loading of the vessel shall have the same righting energy requirement as the lifting criterion (46 CFR 173.020).

A maximum deck cargo VCG vs. draft curve shall be provided for the vessel over the entire range of operating drafts.

3. Weather Criterion 46 CFR 170.170

A minimum metacentric height (GM) shall be defined vs. vessel draft based on a wind heeling moment and heel limitation to submergence of half the freeboard.

C. CALCULATIONS

The calculations shall be performed using the GHS computer software. All run files and macros used in the calculations shall be submitted with the analysis in electronic format.

The intact stability calculation shall be presented in report form with a cover sheet complying with drawing standards and including a drawing type title block (see contract Clause H13). The report shall include a table of contents, summary, explanation of all assumptions and clear definition of origins and units used and the finished calculations.

C160 LOAD HANDLING STABILITY

A. GENERAL

The purpose of this analysis is to determine the load handling capability of the vessel with the selected crane pedestal mounted on the barge. This is an actual KG analysis using the lightship weight estimate.

The goal of the study is to determine the crane safe working loads with respect to operating radii, which shall meet all intact criterion and the load handling stability criterion in any loading condition of the vessel, and for any combination of hook load and crane radius.

Crane azimuths of 15-degree increments and boom elevations corresponding to short, intermediate and long radii may be used to hone in on the most severe conditions of loading.

B. DESIGN LIFT CONDITION

For all fully revolving calculations, the vessel shall be level deck “ready to lift” condition, which was selected from the intact stability analysis as being limiting. For fixed lift over the bow analysis, the vessel shall be level deck when the load is freely suspended.

The spuds shall be in the fully raised position.

Ballast shall be added as required to achieve required trim.

A wind speed of at least 20-MPH, which does not de-rate the load ratings, shall be used. The heeling moment due to the wind shall be calculated in accordance with ABS Mobile Offshore Drilling Unit Rules or similar method.

Margins shall be added to the crane rated capacities as per the design standards

C. LOAD HANDLING STABILITY CRITERIA

The operating load handling stability limits for the design condition are as follows:

- Crane list shall be less than or equal to 2-degrees.
- Crane trim shall be less than or equal to 5-degrees.
- The corner freeboards of the barge shall be greater than or equal to 12-inches.
- The corner drafts of the barge shall be greater than or equal to 0-inches.
- The vessel KG shall be allowable (plotted below the maximum KG curve) as determined by the intact stability analysis.

D. SURVIVAL LOAD HANDLING

The survival load handling stability shall be spot-checked to verify compliance with 46 CFR 173.20 with a 60-MPH wind speed.

E. TRIM & STABILITY BOOKLET

The Contractor shall prepare a Trim and Stability booklet for the vessel during the Engineering Phase of the contract documenting compliance with the criteria. The booklet shall assist the Master in assessing the stability and anticipated inclinations of the vessel, by include the following:

- Instructions to the Master.
- Tank capacities.
- Hydrostatics data.
- Plots of maximum KG vs. Draft.
- Procedure for trim and stability calculations.
- Calculated loading conditions.

Thirty days prior to Final Inspection of the vessel, the Contractor shall provide a final Trim and Intact Stability Booklet for that vessel determining loading procedures to maintain a stable platform throughout the loading process. The lightship weight of the vessel shall be that determined from the Inclining Experiment.

C170 DRY DOCKING PLAN

The Contractor shall develop a dry docking plan for the vessel. The dry docking plan shall be developed to show the blocking for dry-docking. It shall show all major hull structure on the bottom, all hull penetrations, all transverse and longitudinal bulkheads connecting with the bottom shell, the sea chests, the transducer wells, any anodes, and other features, which could interfere with the setting and shifting of the blocks.

The dry docking plan shall include an alternate blocking arrangement to allow for the servicing of all areas of the bottom of the vessel.

The plan shall identify the size (foot print) of blocks supporting the hull and the maximum block loading (KP/foot-squared). The blocks shall be located to evenly distribute the loads and avoid undue stresses within the hull structure. Blocks shall be located in way of main structural longitudinal and transverse bulkheads wherever possible. Where blocking is located on frames other than bulkheads, appropriate docking brackets shall be designed and installed within the hull. Docking bracket details shall be shown on the structural drawings. If the end(s) of the vessel are unsupported, the Contractor shall provide calculations with drawing submittal showing that the hull strength is adequate to handle the cantilevered load.

The dry docking plan shall also include the following:

- lightship weight as determined by the Inclining Experiment and its CG.
- full load weight as determined by the as-built Stability Calculations.

C180 NOISE AND VIBRATION

A. INTRODUCTION

Control of noise and vibration are paramount to the functionality of this vessel. Every effort shall be made to control noise and vibration. The Contractor shall be responsible, at his own cost, to meet the noise and vibration protection limits described herein.

The problems of noise and vibration on vessels are quite complex and can create conditions harmful to personnel, equipment and the vessel itself. Noise and vibration generated in one area of the vessel are transmitted by a variety of transmission paths to other areas of the vessel.

The crane barge shall generate considerable levels of noise and vibration. The equipment shall generate both direct airborne and structure-borne noise, which shall be transmitted through the structure and converted to airborne noise as it vibrates about the vessel.

Control measures are necessary to protect personnel and ensure safe operation of equipment and vessel. Furthermore, control measures are usually successful and cost effective if incorporated at the design stage.

B. NOISE CRITERIA

The following noise levels shall not be exceeded within a given space:

HULL LEVEL

Stores	80 dB(A)
Lower Engine Room	110 dB(A)

MAIN DECK LEVEL

Exterior Deck	75 dB(A)
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DECKHOUSE

Office	65 dB(A)
Day Room	65 dB(A)

C. NOISE AND VIBRATION CONTROL

Some control measures that shall be considered by the Contractor in meeting the criteria are as follows:

- Effective noise barrier around high noise spaces to prevent noise transmission to adjacent spaces, and sound absorbing material around high noise spaces, to reduce contribution of reverberant noise within the space.
- Installing vibration isolators for the diesel generators and all rotating machinery such as pumps and fans in order to reduce noise and vibration transmission through the structure.
- Flexible mounting of ventilation and other service lines.
- Ensuring that all pipe and duct joints are tight and that all penetrations through spaces are sealed.
- Use of low noise components
- Tighter tolerances
- Ensure that the impedance of the foundation supporting the resilient mount is 10 times the impedance of the resilient mount.
- Ensure that the forcing frequencies are not within +/- 25% of the foundation natural frequencies.
- Ensure that the resilient mount/vibration isolator natural frequencies are not greater than 50% of the forcing frequencies.
- All diesel exhaust lines and exhaust silencers shall be mounted using vibration isolators.
- Installing acoustic louvers on all engine and generator room ventilation openings.

C185 TESTS AND TRIALS

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

C200 ARRANGEMENTS

C201 VESSEL CONFIGURATION

The configuration of the hull and the deck arrangement for the vessel shall be generally as shown on the contract guidance drawings.

Watertight bulkheads have been located within the hull to meet damage stability requirements.

The vessel is arranged to provide ready accessibility to machinery and operating equipment for operation, maintenance, and inspection. Provisions have been made for the removal of the generator and other major equipment through hatches or other access. Where equipment, machinery or furnishings have not been shown on the drawings, the Contractor shall provide locations and include that information on subsequent revisions of the above drawings.

C215 GENERAL ARRANGEMENTS

The general arrangements of the vessel shall be generally as shown on the contract guidance drawings.

The vessel shall be arranged to provide the following features:

- Elevated crane operator's cab for good visibility in lock chamber.
- Elevated boom pivot for increased reach when facing up to high obstruction like a lock chamber wall or stoplog.
- Crane tail swing clear of main deck for safety.
- Wide side decks with clear gunwale to facilitate fleet mooring and maintenance operations.
- Diesel Oil storage tank integral with hull, off hull skin and with sloping inner bottom.
- Inclined ladder access from the main deck down to the Machinery Room and up to the crane deck landing, which is barricaded from sweep area of crane.
- Minimal deck obstructions.
- Short hull to facilitate maneuvering at work site.
- Large below deck storage area serviced by large hatches and chain hoist trolley and monorail system.
- Ballast tank to adjust vessel trim when in transit and prior to load handling.
- Removable handrails/life lines around the perimeter of the main deck configured to not interfere with looping hawsers over kevels/bitts from another barge.
- Capstans fore and aft on the side deck positioned for optimum visibility and use.
- Compact spuds and spudwells on main deck aft with energy absorbing lifting collar and spud fenders, aft side gates for spud removal and towknee feature.
- Spud winches mounted on spudwell to minimize deck obstructions with HPU below deck.

C300 STRUCTURE

C301 GENERAL

It is the responsibility of the Contractor to prepare the Detail Design with all necessary plating, bulkhead and framing construction, and weld details and submit them to ABS for approval. All major penetrations in principle hull structure shall be detailed on the ABS approved drawings.

The Contractor shall submit calculations required to determine all principal hull, deck, and bulkhead scantlings. The Contractor shall also submit calculations required to determine foundation scantlings, rigging components and lifting pad eyes. Structural calculations shall be submitted with the associated structural drawings. Structural drawings shall not be reviewed without accompanying calculations.

C305 HULL STRUCTURE

A. GENERAL

The hull shall be of all welded steel construction and divided into watertight compartments with transverse bulkheads, in accordance with the contract drawings.

All hull steel shall conform to ASTM specification A36-81a for structural steel and be certified by ABS. All welding and weld sizes shall be in accordance with the applicable standards of the American Bureau of Shipping.

The shell and main deck plating shall be constructed of longitudinal strakes of lengths consistent with accepted practice for hulls. All seams shall be connected with full penetration welds.

Hull plating transverse seams may not fall within 6 inches forward or aft of flat-of-bottom tangent line.

The transverse framing in the hull shall be open (minimize diagonals) as much as possible to facilitate access in storage areas and capstan space.

Main deck design uniformly distributed loading shall be 2000-PSF. Structure shall be sized in accordance with the latest ABS rules including RCN 6 January 2002 Steel Vessels for Service on Rivers and Intracoastal Waterways.

Vessel service will include impact loads. As a result, section modulus for all side framing shall be increased a minimum of 25% over the ABS rule requirements.

Corner, bilge, head log and stern log plating and stiffeners shall be heavily reinforced to withstand inland rivers workboat duty.

B. PENETRATIONS

When penetrations are made in watertight bulkheads, shell or deck, the plating shall be restored to watertight condition in accordance with the ABS Rules referenced in contract Clause C003. When penetrations are made in oil tight bulkheads or decks, the plating shall be restored to oil tight condition in accordance with the ABS Rules referenced in contract Clause C003.

All such penetrations and deck openings shall be suitably designed and reinforced in accordance with the National Shipbuilding Research Program Publication NSRP 0490 referenced in contract Clause C003.

All keels shall be installed on thickened insert plates with headers below the deck.

C. INSERT PLATES

All deck fittings and deck equipment shall be mounted on insert plates welded continuously into the deck with bulkheads, headers or brackets below. Plates shall have 6-inch radius corners and extend a minimum of 6 inches beyond the item in all directions.

D. OVERBOARD DISCHARGES

All overboard discharge openings through the shell plating above the waterline, shall be located at least 6 inches above the full load waterline.

All discharge penetrations shall not extend beyond the hull plating and shall be of extra strong pipe welded to a circular insert shell plate. Insert plates shall be of equal or greater thickness than the wall of the attached spool piece. No insert plate shall be less than the hull plate in the area of the penetration plus 1/8th inch.

Any pipe penetrating the hull below the full load water line shall be fitted with schedule 80 spool pieces and sea valves. The inboard end of the spool piece shall have a 150 lb pipe flange to bolt to the sea valve. The sea valve shall be located less than 6 inches from the hull opening.

Openings shall be located well clear of draft marks and other hull markings as described in Clause C460.

E. LIFTING PADS

Lifting pads shall be provided throughout the generator room for the lifting of heavy equipment requiring removal for repair. Pads shall also be provided over soft patches or removal hatches to facilitate equipment removal from below deck.

Structure in way of the lifting pads shall be stiffened to prevent undue deflection under expected loads. The structure shall be designed with a factor of safety not less than 5 based on the ultimate strength of the material. Calculations shall be performed and submitted for lifting pads and support structure intended to lift weights in excess of 500 lbs. Lifting pads rated for 500 lbs or more shall be shown on the structural drawings.

F. FRAMING FOR DOORS, WINDOWS, HATCHES, & MANHOLES

All door, window, hatch, and manhole openings shall be provided with headers as necessary to transfer the hull and local structural stresses around the openings. The headers shall be shown on the structural drawings. The requirements for the doors, windows, hatches, and manholes are in accordance with contract Clause C415.

C315 DECKHOUSE

The Contractor shall design and construct a steel deckhouse meeting the requirements of the ABS River Rules (Part 3, Section 6.17) and additional requirements describe below.

Additionally, a crane foundation shall be provided integral with the deckhouse structure between the main deck and the crane deck to suit the selected crane. Allowances for docking forces (.5G horizontal deceleration force) when in transit shall be made.

The deckhouse shall be designed as a reaction frame for the pedestal crane. The deckhouse must withstand the horizontal reaction force at the house top (due to bending moment crane loading), which when coupled with an equal and opposite reaction at the main deck, shall reduce the bending moment in the crane foundation pedestal wall to zero at the main deck. The axial force crane loading shall be transmitted from the cylindrical pedestal foundation to the transverse bulkhead in and below the deckhouse via continuous vertical fillet welding of bulkhead plating to cylinder wall. The crane deck and transverse bulkhead in the deckhouse should be intercostals in way of the crane foundation. The hull transverse bulkhead at frame 15 shall be designed to withstand the crane axial force loading.

The crane turret or kingpost should be machine automatic welded in the field to the crane foundation, which shall be continuous structure. The joint should be slightly above the crane deck. Welding shall be full penetration with 100% non-destructive testing (NDT) performed.

An ABS Statement of Fact review is required for all crane/hull foundation structure. Refer to Clause C004.

C325 SEA CHESTS

One (1) sea chest shall be provided generally as shown on the contract guidance drawing. The sea chests shall be sized to provide water to the fire system, and the ballast system.

The sea chests shall be fabricated of plate equal to or greater in thickness than the hull plating to which they are attached.

A removable, ½ inch copper-nickel strainer plate shall be bolted onto the hull opening for each sea chest. The strainer plates shall be secured with stainless steel fasteners and suitable insulated for dissimilar materials. Each strainer plate shall have an open area as required by ABS and shall be flush on the outboard side.

Extra strong pipe couplings shall be welded to each sea chest for attachment of piping. Each sea chest shall be equipped with a 2-inch vent. Provisions shall be made to allow closing of the vent in order to allow blow down of each sea chest. Blow down connections shall be installed for each sea chest in accordance with contract Clause C690.

C330 FOUNDATIONS

Suitable foundations shall be provided under all units of equipment, 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.

Foundations shall be fabricated from structural steel shapes and plates. Foundation members shall be lightened and openings provided to permit access to all parts of the foundation for inspection, drainage, and maintenance. Web plates of foundations shall be stiffened at holding-down bolts and other points of load concentration.

Bolting surfaces on foundations shall be made coplanar by the use of machined steel shims or poured-in type chocking material. Bolt holes in foundations shall be templated from the unit.

Foundation top flanges/plates shall be level.

All equipment bolted to foundations shall have mounting bolt holes accurately bored (not burned) and reamed to provide a no-slop fit.

The threaded portion of the bolts shall be clear of the foundation or equipment pads, and heavy flat and lock washers used under all nuts. Elastic stop nuts may be substituted for lock washers.

Where dripping of water or oil can be expected, the top plates of foundations shall be tight and project slightly beyond the edges of bedplates or bases of units to be supported. Flat bar shall be seal-welded around the edges of the top plates to retain any leakage of oil or water and quick disconnect fittings provided for drainage.

Unless otherwise specified by the manufacturer, Grade #5 fasteners shall be used for all bolted connections and equipment and machinery hold downs. The threaded portion of bolts shall be clear of the foundation or equipment pads, and heavy flat and lock washers used under all nuts. Elastic stop nuts may be substituted for lock washers.

C400 OUTFIT

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 MDC 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

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 HS

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 thicknesses 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 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).

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 base coat and the barrier coat shall both be the same color.

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.

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, Inner Bottoms

All steel surfaces shall be overcoated 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).

Non-skid garnet additive shall be added to the barrier 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 & Store Room

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 Tank

The interiors of these tanks shall be overcoated with base coat at 8 mils DFT minimum.

12. Fuel Oil Tank

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

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 Phone: (202) 619-8925
- 470 L'Enfant Plaza East SW, Suite 8100 FAX: (202)619-8978
Washington, DC 20407

The coloring schedule shall be as follows:

AREA	COLOR/FS595 NUMBER
Hull Exterior	Black/17038
Hull Markings	White/27880
Exterior Decks	Lite Gray/36492
Exterior Deck Coaming	Striping Red/11350
Deck Fittings	Yellow/13591
Deckhouse Exterior	Old Ivory/17855
Deckhouse Markings	Black/17038
Spudwells Exterior	Black/17038
Hand Rails & Stair Rails	Silver/17178
Hull Compartments	Gray/16473
Deckhouse Interiors	White/17925
Interior Decks	Gray/16473
Tanks	Gray/16473
Insignia Base Plate	Striping Red/11350
Name Board Letters	Gold/23594
Name Board Background	Blue/25102

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 AND 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.

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 AND 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, subpart C, 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 shall 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 shall not be inspected and accepted by the Government without a NFPA Marine Chemist certificate for each compartment designated "SAFE FOR WORKERS".

C410 HULL OUTFIT

Steel Fenders (rub-rails), shall be provided on the hull sides. The edges of the rub rails shall be chamfered to minimize snagging.

Rubber fenders similar to Morse shall be provided at the corners. End fairing shall be provided as required to prevent damage from sidings.

The Contractor shall furnish and install a trolley hoist and monorail system in the Store Room generally as shown on the contract drawings. Two (2) 3-ton trolley hoists shall be provided. Trolley hoists shall be hand chain operated, compact low headroom type with integral trolley mount. The monorail shall be capable of pivoting clear of hatch access way.

Three rows of “J” hooks for rigging stowage (slings, shackles, etc.) shall be provided in the Store Room. J-hooks shall have ~6-inch throat and shall be welded at each side shell frame flange

C415 DOORS, WINDOWS, HATCHES AND MANHOLES

A. GENERAL

Doors, windows, hatches, and manholes shall be located generally as shown on the above contract drawings.

All door, window, hatch, and manhole openings shall be provided with headers and framing as necessary to transfer the hull and local structural stresses around the openings. The headers shall be shown on the structural drawings. The structural requirements are in contract Section C300.

B. DOORS

1. Exterior Doors

All exterior doors shall be flush with the bulkhead, lever type handle, weather tight, gasketed, fabricated of double stainless steel panels, insulated, radius corners, lever lockset closure, heavy duty construction, and adjustable dogs.

The doors shall be completely seal welded at the top to prevent rain entering inside the core and corroding the door from the inside out. A 6-inch sill shall be provided on all main deck level doors not requiring a step up to enter the space.

Doors not located under the roof overhang shall have a flat bar or other device to shield the top of the door from rainwater. All exterior doors shall be provided with automatic closures except the three sets of double doors and the door serving the half space.

2. Watertight Doors

Watertight doors shall be provided as shown on the drawings. Watertight doors in the hull shall be gasketed, structural type, quick acting with 6 dogs, and shall have a sill height of 6” above the floor level or grating level. The watertight doors shall be electrically monitored with electronic status indicator in the companionway entrance on the deck.

3. Interior Doors

The interior doors shall be provided as shown on the drawings. Doors shall be suitably sized and double panel, hollow steel (steel to be a minimum of 16 gauge) intended for marine use.

C. WINDOWS

All windows shall be ¼ inch thick safety glass. All windows shall be of the same manufacturer to provide consistent styling, function and ease of repair.

The glass shall be set in neoprene glazing with extruded aluminum frames, which are clipped or bolted into the deckhouse structure in accordance with the manufacturer's recommendations.

Aluminum framed screens with stainless steel mesh shall be provided for all opening windows. Screens shall be fitted into a track incorporated into the window frame.

D. STORAGE HATCH

Two (2) 48 inch by 48 inch, square, clear opening hatch shall be installed on the main deck for providing access to the stores in the hull. The hatch shall be a watertight hatch, with spring balanced cover similar to CEN-TEX Marine, drawing #214. The coaming height for the hatch shall be a minimum of 9 inches above the main deck.

E. MANHOLES

Watertight steel manholes, 24-inch diameter, flush lift-out type with "T" handle, knife edge seal, escape handle and stainless steel 3 dog mechanism shall be provided as shown on the drawings. "T" handles shall be stowed in pipe rack mounted on adjacent structure. All manhole hatches shall have emergency escape handle.

F. SOFT PATCH

A watertight flush soft patch shall be provided in the main deck over the diesel generator. The size of the clear opening shall permit removal of the diesel generator in one piece.

G. LOCKS AND KEYS

All exterior doors, the raised watertight hatch for access to the Storage Room, and all exterior control stations shall be fitted with suitable locks.

All door locks shall be lever type and suitable for marine service. The lock system shall be similar to Best Lock Corporation interchangeable core and master key.

The keys shall be delivered in a box stowed in the pump room wall, with numbered hooks for each type, with cross reference designation stenciled on the inside cover of the box.

C420 DECK FITTINGS**A. KEVELS**

The Contractor shall provide and install 36-inch cast steel kevels at the locations shown on the contract drawing. The kevels shall be of the open type with smooth formed openings and manufactured of cast steel. Kevels with plate edges in openings are not acceptable. Kevels shall be continuously welded to deck insert plates that are at least 1/8 inch thicker than the surrounding deck plate.

B. ROLLER BUTTONS

The Contractor shall provide and install 15-inch roller buttons similar to BLACKBURN Marine RB-100 on the deck at the corners of the barge. The chocks shall be arranged to support the function of the capstan and shall be generally arranged as shown on the contract drawing. The final positions shall be determined during the Construction phase.

C. H-BITTS

The Contractor shall provide and install 10-inch H-bitts as shown on the contract drawing. H-bitts shall be thru-deck pipe weldments with sufficient developed length below the deck to withstand the anticipated loading. Horizontal and vertical diaphragm plate foundation shall be provided.

C425 WALKWAYS, RAILINGS, GRATINGS AND FLOOR PLATES**A. GUARDRAILS**

Fixed guardrails and removable guardrails shall be provided.

The fixed guardrails shall consist of pipe stanchions and a three-course pipe rail system, all built of one and one half inch schedule 80 pipe. The pipe shall be hot dip galvanized. The height of the top course shall be 42", and the lower course 9", with the intermediate course at equal distance from top and lower course.

The removable guardrails shall consist of one and one half inch schedule 80 removable pipe stanchions every 8' or less apart, with wire and snap hooks at the center and top rail (42") level positions only. The removable rail system shall be provided around the perimeter at main deck and installed approximately as shown on the concept drawings.

The removable stanchions shall be installed in deck sockets built of rod stock, welded to the deck plate, and extending up inside the pipe stanchions of the guardrail.

B. GRATINGS

Grating shall be provided in the Store room on top of the bottom longitudinals.

Grating supplied and installed shall be of the hot dip galvanized bar type, non-skid grating of about 3/16 inch x 1 inch flat bars on 1 inch centers designed to support a load of 100 lbs. per square foot. Deflection under fully loaded conditions shall not exceed .01 times the span.

Gratings shall be accurately fabricated and free from paint, warp, twist, or other defects affecting their appearance or serviceability. Grating shall be cut and banded for fitting around piping, ducting, etc., in such a manner that no sacrifice of strength results.

Grating shall be installed in accordance with the manufacturer's recommendations. Clip fasteners shall be provided by the manufacturer of the grating and shall be attached to the support structure with stainless steel hex head bolts with nylock nuts.

C. FLOOR PLATES

Floor plates shall be provided in the Machinery Room on top of the flange of the transverse frames.

Floor plates shall be 1/4 inch steel diamond tread. These plates shall be installed in sections for easy removal and shall be secured with countersunk flat head stainless steel screws, minimum 1/4 inch diameter. Sections shall be sized so that a single person may lift out each panel. The supports shall not extend above the surface of the abutting plates. The plates shall be required to be flat and free from warp, twist, and other defects affecting their appearance and serviceability.

The floor plates shall be designed to support minimum static loads of 100 lbs. per square foot without excessive deflections, generally, and shall be locally reinforced, as necessary, where greater loadings are contemplated in the removal or disassembly of machinery for overhaul.

C427 VERTICAL AND INCLINED LADDERS

A. GENERAL

The Contractor shall provide and install steel vertical and inclined ladders for the vessel generally in the locations shown on the above contract drawings.

Units shall be attached to the vessel by stainless steel bolt fasteners for easy removal.

B. INCLINED LADDERS

Risers shall be equally spaced between decks in accordance with the following table.

Non-skid tread and safety nosing shall be installed on all inclined ladders.

Ladder angle shall not exceed 50-degrees, which is associated with a 9.25-inch riser, a 64-inch head clearance normal to the slope and a 33-inch handrail height.

Ladder Angle (Degrees)	Head Clearance (Inches)	Riser (Inches)	Effective Tread (Inches)	Handrail Height (Inches)
40	72	8.00	9.5	34
42	71	8.25	9.2	34
44	69	8.50	8.8	34
46	68	8.75	8.5	34
48	66	9.00	8.1	33
50	64	9.25	7.8	33

C. VERTICAL LADDERS

Steel vertical ladders 18-inch wide shall be provided under all manholes; a 7" toe clearance is required from surface of insulation if installed, and rung spacing shall be 12".

The ladders shall be fabricated of 3"x3/8" bar with 3/4" square rungs.

Square bar rungs shall be turned edge-up.

C430 DECK COVERING AND CEILING

A. DECK COVERING

1. Weather Decks

All weather decks shall be prepared for a non-skid surface. See coating schedule in Clause C406.

2. Interior Decks

All steel decks shall be prepared as recommended by the manufacturer prior to floor covering installation.

The Day Room and Office shall be covered and sealed with a system of rubber tiles similar to TUFLEX Spartus.

A vinyl sanitary cove base, of a similar color to the adjacent floor coving, not less than 4 inches high, shall be worked around all bulkheads and equipment. The coving shall be sealed at the top and bottom edge with a long lasting silicone seal. Where coving shall not fit below doorways, the coving shall be trimmed to suit or sealed by other means on an instance by instance basis as determined on site by the MDC representative.

The COR shall select colors for the floor covering from the available color options, four colors maximum.

Floor covering and accessories, including any necessary sealers and finish coating, shall be installed in accordance with the manufacturer's recommendations and instructions.

B. CEILING

1. Day Room and Office

A suspended, vinyl faced, gypsum sheet rock ceiling, ½ inch thick, shall be installed for the overhead of the Main Deck forward of the upper machinery space, and all decks above except the Pilothouse. The ceiling furnished shall be a drop-in ceiling tile system using metal T tracks, 24 inch x 24 inch and 24 x 48 inch tile sizes, and perimeter support angles. The metal track system shall also accept and support the standard 2 x 4 foot two tube fluorescent light fixtures. The track system shall be hung from the framing system of the deck above.

C435 JOINER WORK

Vinyl faced aluminum sheathing shall be installed in the deckhouse accommodations as described in Clause C436.

Vinyl faced aluminum trim pieces shall be fabricated and installed to finish off the openings around windows to the paneling.

All items mounted against the bulkhead panels shall be fastened through the panels directly to vessel structure.

There shall be no wood behind joinery. If used, furring strips shall be metal.

Doors, windows, lighting fixtures, and ventilation penetrations shall be integrated into the joinery system using moldings and trim pieces provided by the joinery manufacturer for that purpose.

All cabinetry shall be provided and installed complete with appropriate drawer slides, hinges and handles.

The color scheme of joiner work shall be selected by the COR from available color options, four colors maximum.

C436 INSULATION AND SHEATHING

A. INSULATION

Insulation shall be provided for all exterior deckhouse bulkheads and deckheads, and for bulkhead and deckheads bordering the below deck machinery spaces and storage room (to 12 inches above the floor plates).

Insulation, sheathing, and the mounting system used for both shall be suitable for marine workboat service, anticipating high levels of dampness and vibration, and temperature extremes. Insulation shall be of the fiberglass hullboard type (similar to CLAREMONT's, N3A Hullboard) and in accordance with USCG regulations. Installation shall be in accordance with the manufacturers' recommendations for the intended service. However, as a minimum, the mounting studs shall be welded to bulkhead/roof structure. Adhesive mounting is not acceptable.

Insulation in all spaces with machinery and the storage room shall be specially coated with a damage resistant material similar to CLAREMONT's "Tuff-Skin 1613". Insulation in these spaces shall be faced with Mylar or its equivalent to prevent oil absorption.

All insulation shall be kerfed to wrap around stiffeners larger than 4 inches in depth, with additional filler under flanges. The system shall be applied to stack soft patches such that the soft patches may be removed with the system integral with the patch.

The insulation system shall be sufficient to meet the acoustic criteria in Clause C180, and the thermal criteria in Clause C685. In all cases, insulation thickness shall not be less than 4 inches.

B. SHEATHING

Sheathing shall be provided in all areas with insulation. All interior bulkheads of the deckhouse and Main Deck forward of the upper machinery space shall be sheathed.

Sheathing shall be 14 gage perforated aluminum sheets with a minimum of 30% open area, and shall remain unpainted.

Since the insulation treatment wraps around stiffeners, furring strips shall be required to provide a firm fair base for the sheathing. The furring strips shall be mounted to stiffeners with stand offs to avoid crushing the insulation and acoustical treatments. Sufficient furring shall be provided to provide a fair surface for the sheathing. All furring shall be metal. No wood is permitted behind sheathing.

Framing, furring strip, and fastener spacing shall prevent drumming and vibration of sheathing. The sheathing shall be fastened to the furring strips or the deckhouse framing by pop rivets, or self-tapping stainless steel sheet metal screws with decorative caps.

Access panels shall be provided as required for access to wiring or piping behind the sheathing.

All items mounted against the bulkhead panels shall be fastened through the panels directly to bulkhead support structure.

The color scheme of joiner work shall be selected by the COR from available color options, four colors maximum.

C437 FURNITURE AND FURNISHINGS

Each space shall be supplied and installed with the equipment and outfitting listed below.

A. DAY ROOM

- Three (3) steel conventional industrial storage lockers, single tier, 18" x 18" x 72" high, with coat bar at top.
- One (1) Dining table and four (4) matching chairs.
- Refrigerator/freezer unit, ~27-cubic feet capacity, frostless, sided by side.
- Base cabinets with countertop.
- Wall cabinets.
- Microwave oven, countertop mounted.
- Water cooler.
- Computer work station

B. DECK TOILET

- One (1) storage cabinet with shelves.

C. OFFICE

- Desk, steel pedestal type with drawers and matching chair.
- Bench.
- Five (5) steel conventional industrial storage lockers, single tier, 18" x 18" x 72" high, with coat bar at top.
- Computer work station
- File cabinet, steel, four (4) drawer.

C445 LIFESAVING AND SAFETY

A. DESCRIPTION OF WORK

The Contractor shall provide and install the necessary lifesaving and safety equipment listed below. The final equipment locations shall be made by the COR during the Construction Phase.

B. LIFESAVING EQUIPMENT

1. Life Rings

Three (3) 30 inch diameter life rings, USCG approved, similar to a JIM-BUOY model number CGO-30 fitted with rope, shall be provided and installed on life ring racks. At least two life ring shall be provided with a self-igniting waterlight and one with 15 fathom line and smoke signal.

2. Life Preservers

Eight (8) adult USCG approved Type I PFD life preservers shall be provided for the vessel. The life preservers provided shall be similar to a SAFEGUARD model 190RT, international orange in color, and shall be marked with retro-reflective tape per USCG Rules. Each life preserver shall have the vessel name stenciled on it. Life preservers shall be stowed in the Day Room area.

C. SAFETY EQUIPMENT

One 24-unit first aid kit I waterproof container to be mounted in the day room area.

C456 CAPSTAN

The Contractor shall provide and install two (2) thru-the-deck mounted, watertight capstans with bronze bushed cast capstan barrel. Capstan to be mounted on a deck insert plate and local reinforcement shall be provided under the deck to support the full load capacity of the capstan. The capstans shall be located generally as shown on the contract drawing.

The capstan shall be a single barrel, spur geared, unwhelped, electrically driven capstan. The capstan supplied shall be similar to a SCHOELHORN-ALBRECHT type 22300, with 15-HP, single speed electric motor. Motor supplied shall be 460 volt, 3 phase, 60 Hz. Capstan shall be rated at 14,000-pound line pull at 30-FPM and 100,000-pound static pull.

One-man operation of the capstan shall is required with the control station located in the vicinity where the operator can apply back-haul tension on the hawser and have good visibility to the bitts along the side of the vessel.

The capstan shall be supplied with a controller mounted on the main deck and a foot switch.

C460 DRAFT MARKS, HULL MARKINGS & NAMEBOARDS

A. COLOR SCHEDULE

The color schedule for the draft marks, hull markings, name boards, and stack insignia are in accordance with contract Clause C406.

B. VESSEL DRAFT MARKS

Draft marks of raised Arabic type numerals, 6-inches in vertical height and cut from 1/4 inch steel plate, shall be continuously welded to the shell plating. The draft numbers shall be located on the port and starboard sides at frames 10 and 45. The draft marks shall be measured from the underside of the bottom plating projected to the bottom of the numerals. The bottom of the figures shall correspond to multiples of 1 foot of draft.

C. HULL MARKINGS

The title U.S. ARMY CORPS OF ENGINEERS, in Gothic letters 12 inches high shall be cut from 1/4 inch plate continuously welded to the hull side at amidships, P/S.

The Contracting Officer's Representative shall approve the exact locations of the hull markings prior to installation.

D. NAME BOARDS

The name of the crane barge shall be displayed on name boards at the aft end of the crane deck at the outboard rails.

Exact locations shall be accepted by the COR prior to installation.

Name boards shall be made of steel, rectangular in shape, 14 gauge iron, with 12 inch high Gothic letters printed in gold porcelain finish with a blue porcelain finish background. The name boards shall be provided with a 2-inch minimum border all around.

C461 NOTICES AND MARKINGS

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

As a minimum, the following signs shall be provided:

- “NO SMOKING” notices shall be placed at each fuel oil, gear oil, hydraulic oil, and lube oil fill station.
- All controls, gauges, switches, etc., shall be labeled with phenolic label plates to permit operation of the vessel.
- An engraved metal fire control plan. See contract clause C677 D.
- Manholes, vents, fills and sounds shall be marked with tank identification and intended service with brass tags.
- Confined spaces (tanks, hull voids and hold compartments) shall have a sign at each entry stating “Confined Space DANGER Permit Required”.

C472 NAVIGATION EQUIPMENT

Appropriate navigation lights and shapes (day markers) shall be provided for the vessel in accordance with the USCG Navigation Rules International-Inland. Portable lights with magnetic base shall be provided.

Four (2) VHF radios with antennas shall be provided and installed. Two (2) shall be installed in the crane operator’s cab. Two (2) shall be installed in the Office. Radios shall be Horizon Eclipse Plus Standard VHS GX125OSAA.

C500 SPECIAL FEATURES

C540 CRANE FEATURES & PERFORMANCE

A. GENERAL

The crane shall be a standard proven-design; commercially available; diesel powered; hydraulically operated; fully revolving; pedestal-mounted on barge; lattice-boom; lift/clam/personnel platform handling crane suitable for inland rivers floating platform service at capacity in calm conditions. The crane shall meet the design and fabrication requirements of Clause C003.

Crane shall be built in accordance with either ANSI B30.8 or API Specification 2C.

The crane shall be the manufacturer's standard unit for marine service. Such standard marine service shall include but not be limited to:

- All exterior doors, openings and accesses to be weather tight
- Storage space in the cab for a Type III personal flotation device (in addition to the crane operating manual and crane load charts)
- Double continuous weld on all primary structure to improve strength, reduce vibration, and improve corrosion resistance
- Cab and machinery space to be constructed of welded steel in accordance with AWS
- Adequate access/walking/standing space all around each piece of machinery for maintenance (to be illustrated on the Machinery Arrangement drawing with all local equipment)
- Access to oil tanks shall be oil tight
- Robust boom design, which shall provide a long service life without fatigue, when experiencing dynamic loading due to the floating platform
- Insulate and jacket the engine exhaust pipes for noise abatement and safety

Crane bearings and seals shall be suitable for the harsh abrasive environment of intermittent bucket work and lock gate repair work, where extensive gate sand blasting and water cannon blasting operations shall take place within the confines of the lock chamber.

Crane shall be extremely quiet, reliable and maintainable. Crane shall be equipped with hospital grade mufflers in the exhaust system and acoustic cooling fan lovers.

B. RATED LOADS

The load ratings shall be based on a floating condition of the vessel for inland rivers service in calm conditions.

Crane shall be rated in accordance with either ANSI B30.8 or API 2C (3.1.2 Dynamic Rated Load)

The fully revolving load ratings shall be based on 5-degree crane trim (offlead), 2-degree crane list (sidelead), and 20-MPH adverse wind.

The fixed lift over the bow load ratings shall be based on a ~level deck condition of the vessel with 1-degree crane trim (offlead), 1-degree crane list (sidelead), and 20-MPH adverse wind.

C. REQUIRED LOADS

An intermittent clamshell fully revolving capacity rating for boom lengths between 90-110-feet is required. Ratings shall make allowance for anticipated machine list. Efficient use of a 2-CY general-purpose bucket filled to the line of plate with 130-LBS/CF materials is required for the 110-foot boom length.

Main hoist fully revolving required loads for lift work in KP (1,000-pounds) with the 110-foot boom length are as follows:

- 12-KP at 95-feet radius
- 34-KP at 35-feet radius

D. PREFERRED LOADS

The preferred lift capacity for every mode of operation is that which would fully utilize crane strength at the vessel stability limits. This capacity would also exceed the load requirements by a reasonable margin to allow for additional future growth.

E. OPERATIONAL TEST

At the end of successful dock trials, the vessel shall be overload tested in still water conditions at 100% of the crane design load. With the test load freely suspended and the crane fully revolving, the crane trim and list shall not exceed the design requirements during the testing. Transference of ballast during this test shall not be permitted.

F. BOOM

A lattice type sectional boom shall be provided with projected length from pivot to boom point main hoist sheave pin centerline of at least 110-feet. Boom inserts shall be provided to change the length to 90-feet.

A boom point extension shall be provided with 2-intermittent clamshell sheaves mounted at the point. All sheaves shall have anti-friction bearing mounted.

A lightweight catwalk shall be provided on the opposite side of the boom from the operators cab. The catwalk shall provide service and inspection to all necessary parts and lubrication points.

During transit voyages and extended periods of storage, the boom and boom hoist system shall be capable of holding the boom at maximum radius without the use of a boom rest.

Boom shall be equipped with a pendulum type mechanical boom angle indicator clearly visible to the operator.

G. HOISTS

Hoist performance shall be suitable for the intended service and shall meet all applicable safety standards.

Hoist and sheave fleet angles may not exceed 2-degrees when block is in the stowed position.

Powered hoisting/lowering and free-fall operation shall be provided with fail-safe brakes, clutches and drum rotation indicators. Motors and controllers shall provide for automatic speed according to line pull. Winch design shall allow for precise working cycles for all winch movements, good energy use in acceleration and braking, as well as reverse energy to the system when operating in the power-lowering mode.

The braking device for the main hoist shall be capable of holding the rated load indefinitely without attention from the operator, and shall actuate automatically upon return of the control to the center (neutral) position.

Controlled load lowering feature shall be provided for personnel platform handling. The man-basket winch shall have a four-fold design safety factor, installed slack line protection and a hand crank for emergency operation.

Sufficient number of hoists shall be provided to change over from lift work to intermittent clam work in less than 2-hours time with a 2-man crew, without the installation of drum lagging. Two operating lines over the outer boom point in addition to the main hoist are preferred.

Sufficient spooling capacity on the drums shall be provided to lower all hooks 93-feet below the boom pivot and at least 80-feet below the barge deck.

H. POWER

The crane shall be capable of operating completely on its own diesel power.

The slewing, boom luffing, and hoisting drives shall be independent. The crane shall be capable of slewing, luffing and hoisting at the same time. Sufficient power shall be provided for simultaneous operation of major machine functions.

Use of hydraulic oil that is environmentally friendly is desirable. The lowest maximum operating hydraulic pressure is desirable.

I. SWING MECHANISM

The swing system shall be rugged enough for the swift, rough swing motions of intermittent clamshell work, yet shall be sensitive enough for precise, smooth swing motions required for lift work and personnel platform handling operations.

The swing mechanism shall have sufficient power to rotate the crane for all rated design loads and boom radii combinations, including:

- Capability to swing up hill with a maximum adverse 2-degree crane list against 20-MPH wind.
- Swing speed of 2-RPM or better, with infinitely variable speed control from 0 to maximum RPM, and with smooth start and stop capability. Higher swing speeds of 3-RPM or better are preferred for the light lift mission of this vessel.
- “Free-swing” in the neutral control position, permitted by manually operated static parking brake.
- Smooth dynamic braking feature by “cross control” with swing motion control lever, which applies swing power in the opposite direction of motion to retard swing and minimize decelerations, which would side load the boom.
- Positive swing locking device in both directions.

J. FRONT-END EQUIPMENT

The weight of all front-end equipment shall be sufficient to overhaul the hoisting system (i.e., the block is able to be lowered from its stowed position under its own weight, at maximum hook speed).

One (1) ~20-ton single-sheave main hoist load block similar to Gunnebo Johnson “Shorty J” crane block shall be provided and installed for use primary use with the 110-foot boom.

One (1) main hoist load block similar to Gunnebo Johnson “Shorty J” crane block shall be provide for level-deck over the stern lifting at 20-foot radius with the 90-foot boom. The SWL rating of the block shall fully utilize the lifting capacity of the crane. The number of block sheaves shall be even to permit installation of LMI load cell at wire rope dead end at boom point.

One (1) 4-ton auxiliary hoist top-swivel overhaul ball and hook similar to Gunnebo Johnson shall be provided and installed.

One (1) general-purpose 2-cubic yard clamshell bucket similar to Erie Strayer Model GP2 shall be provided.

One (1) standard 4-man suspended personnel platform shall be provided with ~860-pounds basket weight and 1500-pounds load capacity. The shape shall be rectangular with 108"x 36"x 42"H dimensions. The manbasket shall include a detachable test weight system. The design of the manbasket shall meet the current OSHA rules on crane suspended personnel platform safety.

K. FOUNDATION

A crane foundation shall be provided integral with the deckhouse between the main deck and the crane deck to suit the selected crane. Allowances for docking forces (.5G horizontal deceleration force) when in transit shall be made.

The deckhouse shall be designed as a reaction frame for the pedestal crane. The deckhouse must withstand the horizontal reaction force at the house top (due to bending moment crane loading), which when coupled with an equal and opposite reaction at the main deck, shall reduce the bending moment in the crane foundation pedestal wall to zero at the main deck. The axial force crane loading shall be transmitted from the cylindrical pedestal foundation to the transverse bulkhead in and below the deckhouse via continuous vertical fillet welding of bulkhead plating to cylinder wall. The crane deck and transverse bulkhead in the deckhouse should be intercostal in way of the crane foundation. The hull transverse bulkhead at frame 15 shall be designed to withstand the crane axial force loading.

The crane turret or kingpost should be machine welded in the field to the crane foundation, which shall be continuous structure. Welding shall be full penetration and Non-Destructive Tested. Field joint shall be located slightly above the crane deck.

L. SAFETY

All applicable safety systems required by the standards shall be provided. In particular, the following shall be provided:

- Anti two-block (upper limit) devices shall be provided on both the main hoist and auxiliary hoist that stops all hoisting functions and sets the hoist brakes to prevent the hoisting blocks from any contact with the boom.
- There shall be a boom hoisting disengaging device, to disengage the boom hoisting power when the boom reaches its highest angle. When the power disengages, the boom hoist shall automatically be restrained from lowering. A positive locking device shall be provided on the boom hoisting. Boom stops shall be of the shock absorbing bumper type.
- A high contrast display, load-moment indicator system, similar to PAT-KRUEGER, shall be provided in the crane cab. The indicator shall be capable of

displaying at least four programmed load charts. The display panel shall constantly monitor crane list and trim to accuracy of 0.1-degrees.

- Two (2) single tube clinometers, similar to Moeller No. 457, with one bubble and divisions 0-5-degrees each side of vertical in 1/10-degrees divisions shall be provided and installed to monitor crane trim and crane list.

M. CRANE OPERATOR'S CAB

The operators' cab shall have the following features:

- Large window area and roof window for good working visibility.
- Ergonomically designed for maximum output and minimum fatigue.
- Adjustable operator's seat for complete comfort and convenience.
- Windshield wipers and defroster.
- Climate control and circulator fan.
- Cab structural module vibration isolator mounted to machine deck to reduce noise and vibration.
- Elevated cab deck to 25-feet or better above vessel baseline.
- Clearly visible high contrast display unit for crane LMI.
- Sound-insulated in bulkheads and door
- Space and brackets for mounting two (2) VHF radios, small units 5 7/8"W x 2 1/2"H x 5 1/4"D, Horizon Eclipse Plus Standard GX1250SAA

N. LIGHTING

A least two (2) standard boom lights shall be provided. Boom lights shall be pendulum swivel type and 500-watt. One should be mounted near the tip and the other about 1/3 back.

One (1) 500-watt xenon searchlight, mounted on the cab roof, shall be provided with electric remote control from the operator's chair.

A shore power electrical connection shall be provided to energize the crane lighting, HVAC and via a slip ring when the on board crane generator is not in use.

O. PORTABLE BOOM RESTS

Two (2) portable boom rests shall be provided for horizontal stowage of the boom when maintenance is required. The crane manufacturer shall provide the support points and loads. Rests shall be lightweight steel space frame weldments with timber-lined seat.

Rests shall be shipped loosely with the vessel.

P. MISCELANEOUS

The following miscellaneous features shall be provided and installed:

- Continuous electrical cable used for boom lighting with spring loaded spool.
- Centralized grease fittings.
- Tagline reel for clamshell operation.
- Diesel skid-mounted on hospital grade vibration isolators.
- Standard package of Lift/clam accessories for crane.

C550 SPUDS

Two (2) 45-foot long spuds with side entry type spud wells shall be provided generally as shown on the Contract guidance drawing.

Spud configuration should be 24" diameter pipe with equal length angles welded 90-degrees apart to reinforce the spud and to form corners for contact surface to fenders.

The point of the spud shall be reinforced with square bar stock welded to diaphragm plates.

The spuds shall be designed to withstand vessel storm survival wind and current conditions.

The spuds shall light enough to be removed from the spudwell with the on board crane.

C552 SPUDWELLS

Energy absorbing spud marine fenders shall be provided to reduce the likelihood of damage to the spud during emergency operations.

Spud fenders shall be continuous from bottom to top of spud well to minimize load concentrations. Fit shall be snug without interfering with travel.

Spud fenders shall be removable from the top of the well without dry-docking the vessel.

The top of the spudwell shall have energy absorbing fenders and spud lifting collar with sling shackle attachment points.

Pinned gates shall be provided for side removal of the spud.

Spudwells shall also function as towknees. Each spudwell shall be faced with replaceable tow-knee pusher plates (rubber pads vulcanized to steel plates) similar to Johnson Duramax. Surface of rubber shall be flush with the rubbing strip running across the stern.

C554 SPUD HOIST SYSTEM

Hydraulic spuds winches shall be provided and installed generally as shown on the Contract guidance drawings. The system shall be capable of raising both spuds simultaneously at full speed.

Deck obstructions shall be minimized by the installation.

The spud winches shall have power-up, power-down, controlled lowering and free-fall features to facilitate lowering the spud quickly under control, finding the river bottom and then stabbing the spud tip with a few feet of free-fall.

The spud winches shall have a low-tension payout feature to compensate for rise of river level.

Hydraulic motors shall be variably flow type providing automatic speed according to line pull. The rated working line pull of the winch shall equal the dry weight of the spud or greater.

A fleeting sheave shall be provided for each winch generally as shown on the Contract guidance drawings. The shaft shall be suitably sized by structural analysis to withstand the breaking strength of wire rope or winch pull limitation. Wire rope keepers shall be provided on the sheave.

The spud hoist cable shall be stainless steel.

C598 PROJECT SPECIFIC SPECIAL FEATURES

A. WATER CANNON

An elevated fire monitor shall be provided and installed generally as shown on the Contract drawings.

Manual azimuth and elevation controls shall be provided.

The nozzle shall be elevated ~6-feet above the deck.

The fire monitor shall be serviced via fire hoses from each fire station.

This manually controlled elevated fire monitor shall operate at a flow of ~500-GPM at a head of ~100-PSI at the nozzle.

See contract Clause C675 FIREMAINS SYSTEM for specific requirements.

C600 MACHINERY

C601 GENERAL REQUIREMENTS FOR PIPING SYSTEMS & MACHINERY

A. GENERAL

All machinery and piping systems shall be in accordance with the regulatory bodies referenced in contract Clauses C003 and C004, and shall also comply with additional regulatory bodies where specified. References made to specific sections of codes, rules and standards in these specifications are intended to emphasize specific salient items.

All equipment shall be rated for marine duty service.

All pumps are to be provided with mechanical seals.

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 within the vessel in an even trim condition. The drains shall be provided at low spots in the piping, located so that they shall be readily accessible. Screwed plugs shall be brass in all piping systems.

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.

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, except that the fire main piping may be designed such as to be a dry system when not pressurized. Freeze protection shall be provided by installing drain plugs at all low points in all piping systems carrying fluids that can freeze.

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.

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.

E. 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.

F. 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.

G. 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.

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 pilothouse equipment as well.

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

B. PIPE MARKING

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

Fuel Oil	Orange
Engine Cooling	Light & Dark Blue
Bilge/Ballast	Light Green
Oily Bilge	Brown & Orange
Potable Water	Light Blue
Gray Water	Gray
Black Water	Black
Fire Systems	Red
CO2 System	Red
Compressed Air	Dark Blue

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

OUTSIDE DIAMETER OF PIPE OR COVERING (INCHES)	MINIMUM LENGTH OF COLOR FIELD (INCHES)	SIZE OF LEGEND LETTERS (INCHES)
3/4 to 1-1/4	8	1/2
1-1/2 to 2	8	3/4
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.

All piping and hoses shall be marked at each termination and at each watertight bulkhead penetration to indicate service and flow direction.

C625 ELECTRICAL POWER PLANT

One (1) diesel generator set rated to provide a 25% excess of power requirements shall be provided. The engine shall be resiliently mounted by the engine manufacturer on vibration isolators to a skid sub-base, as a self-contained unit to be bolted on the foundation on the main deck. This should allow easy removal of each generator set by disconnecting electrical wiring, unbolting the respective skid from the foundation, and off-loading from the barge with the crane. Pick-up points for lifting, shall be provided on the top of each diesel generator set. The diesel generator set shall be located such that it can be removed as a single unit through a soft patch provided in the generator room overhead.

The elastomer vibration mounts to isolate engine vibration, shall be sized and selected for a maximum 20 percent transmissibility.

The generator set shall be sized based on the electrical load analysis and rated to provide a 25% excess of power requirements.

The generator set shall be rated for continuous operation at 480 VAC, 60 hertz, 3-phase, 0.8 power factor. The generator shall have a NEMA 2 enclosure and be self-ventilated. The generator shall be static regulated and brushless excited, designed to match the performance of the engine that drives it. The generator shall be equipped with a space heater. The generator shall be capable of operating with a 10% overload for two hours out of every twenty-four hours. The voltage dip on the generator shall not exceed 25 percent of 0.5 hp/kW, Code G, motor starting across the line. Transient reactance shall not exceed 25%.

The diesel engine shall be 4-cycle, radiator cooled, suitable for No. 2 diesel oil fuel, and having dry exhaust.

The diesel generator shall be built to and approved by ABS, and shall be supplied with ABS certificates.

The diesel generator set shall have the following features:

- 1200 RPM.
- Dry type air cleaner and service indicator.
- Battery starting 24 VDC, (batteries shall be provided in battery box).
- Local and remote controls Start/Stop and Emergency Stop. Remote controls to be located outside of the Machinery Space entrance door.
- Throttle control governor, cranking cycle with adjustable 1-60 sec. crank/rest periods.
- Local gauges: Fuel Oil Pressure, Lube Oil Pressure, Water Temperature, Tachometer, Engine Run Hour Meter.
- Local alarms and shutdowns due to:
 - low Lube Oil Pressure
 - low Lube Oil level
 - high Cooling Water Temperature
 - overspeed Trip
 - overcrank.

The generator shall have a dedicated voltage regulator mounted in the switchboard. The voltage regulator shall be a solid-state, volts-per-hertz voltage regulator, capable of maintaining steady state regulation within 1 percent of rated voltage from no load condition to 110 percent rated load condition. The voltage regulator shall include a voltage-adjusting rheostat with a plus and minus 10 percent adjustment range.

The diesel engine Crankcase Vent shall be similar to Nelson Ecovent Recirculator with manometer and drain back to the engine sump. The engine crankcase shall include a weather-tight, oil-tight, lube oil electric heater for maintaining the sump temperature between 40 degrees F and 60 degrees F during cold weather when the engine is not running. The generator set 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.

C630 FUEL OIL SYSTEM

The fuel oil system shall consist of:

- Main fuel oil tank
- Supply and return lines to the users.
- Tank fill stations
- Crane fill station

The main fuel oil tank capacity is at least 5,000-gallons at 6-inch ullage. The tank shall be located as shown on the contract arrangement drawing and shall be provided with a spill containment device underneath and a valved stripping connection having a cap or plug. Fuel oil shall be transferred from the main tank to the crane fill station, as necessary; fuel oil from the generator engines shall be returned directly to the main fuel tank. The main tank shall be complete with inspection openings and all necessary connections for fill, supply, return, drain, vent, and gauges.

A positive displacement, gear type transfer pump shall be installed in the Machinery Room near the tank. The pump shall be capable of delivering diesel oil to the crane tank at the rate of 20-GPM at the nozzle.

The main fuel oil tank shall be equipped with a sounding tube at the Main Deck ladder landing and a fuel level gauge similar to GEMS style gages.

All piping shall be A106 seamless black steel.

The fuel supply lines to the generator 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 engine-mounted fuel oil filters. A flexible connection shall also be provided in each diesel fuel return line to the main fuel oil tank. Ball type shutoff valves shall be provided at the inlet and outlet of each filter.

All supply pipes and pipes subjected to static head from the main shall have positive closing valves near the tank. These valves shall be remotely operable (closed) from a safe and readily accessible location on main deck, outside the deckhouse. All valves must have local controls in addition to the remote operators. The remote operator for the main fuel tank shall be installed in flush mounted deck boxes. Filling and return lines shall enter the tanks at the top.

Fuel oil fill stations shall be located Port and Starboard of the deckhouse. The stations shall be capable of receiving fuel from a tank truck or shore facility using either gravity or pressurized fill methods. The filling connections shall consist of three-inch male quick-connect fittings and gate valves. The fill and vent pipes shall be provided with stainless steel flame arrest screen of at least 30 x 30 mesh and cap. The filler cap shall be self-closing.

A crane fill station shall be provided on the Crane Deck generally as shown on the Contract drawing. The fill station shall have the following equipment and features:

- Capability of delivering diesel fuel at the rate of 20-GPM or better to the crane diesel oil tank and to off load to other vessels.
- Station protected by steel angle cage (not shown on the Contract drawing).
- Outfitted with electric rewind hose reel similar to HANNAY, equipped with 50-foot of 1-inch diameter hose and motor-pressure sensitive automatic shut off service nozzle.
- Outfitted with fuel meter similar to GASBOY.
- Start/Stop controls to activate the fuel oil transfer pump located near vessel storage tank. This pump shall have internal relief valve suitable for use with the crane fill station automatic shut off nozzle.
- A pump run-indicating light shall be provided next to the Start/Stop button.

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.

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

C635 LUBE OIL SYSTEM

No fixed lube oil system shall be required. Lube oil drums shall be stored in the paint locker as shown on the concept arrangement drawings.

The Diesel Generator set shall be equipped with a lube oil purifier similar to a (T.F. Hudgins & Associates, INC. model Spinner II.

C637 WASTE OIL SYSTEM

There shall be no permanent Waste Oil System. Two (2) 55-gallon drums shall be provided in the Machinery Room for storage of waste oil removed by an Aeroquip FLOCS 15 system (furnished by the Contractor).

The system shall evacuate all diesel crankcases and hydraulic oil reservoirs by quick-connect fittings for quick and clean maintenance. Sufficient length of transfer hose and quick-connect fittings shall be provided.

Storage drums shall be vented and secured as required.

C640 ENGINE COOLING SYSTEM

A. GENERAL

A 50-50 ethylene glycol mixture containing a rust inhibitor in accordance with the engine manufacturer's recommendations shall cool the generator engine. The engine driven water pump shall circulate the cooling fluid mixed in a closed loop between the engine and the Radiator.

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 radiator connections.

Flanged stainless steel ball type shut-off valves shall be furnished and installed at both the inlet and outlet connections to the radiator. The ball valves shall have operating

handles fitted with stops or detents for open and closed positions to indicate valve open and valve closed positions.

Flexible hose connections shall be suited for temperatures up to 250 degrees F and pressures to 20 psig. 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 ball pipe shut-off valves that may be locked in the closed position.

D. SYSTEM SIZING REQUIREMENTS

During Final Design, the Contractor shall perform engineering to size the engine cooling pumps and radiators based on the final selection of the diesel generator engines. The coolers shall be sized in accordance with the engine manufacturer's recommendations. The coolers shall be sized to cool the full generator output at a vessel forward speed of 0 knots and the water temperature of 95 degrees F. The contractor shall provide auxiliary expansion tanks and/or larger jacket water pumps if required to handle the cooling system volume.

C645 RAW WATER SYSTEM

The raw water system is combined with the fire main system and described in Clause C675.

C650 EXHAUST SYSTEM

A dry exhaust system shall be provided for the generator engine. The system shall consist of ASTM A106 steel piping and fittings and a residential type, hospital grade, spark-arresting stainless steel silencer similar to Nelson located on the main deck and enclosed in either a stack or an expanded metal cage. All piping and fittings exposed to the weather shall be stainless steel.

The stainless steel exhaust outlet shall be provided with a rain flap cover that closes automatically when not in use (i.e. counterweight), and the outlet shall be turned up to minimize noise on the deck. The rain flaps shall direct the fumes away from the flow path of any inlet ventilation air openings on the deck.

Stainless steel expansion joints shall be provided, and shall be located as close to the engine's exhaust outlet as possible, and elsewhere as needed. The expansion joints shall minimize transmission of engine vibration to the exhaust line, and prevent overstressing of the engine connecting flanges, anchor points, and piping due to exhaust pipe weight, thermal expansion and relative movement of engine and exhaust components. The joints shall use multi-ply bellows construction.

A condensate collector with drain cock or plug shall be installed in each engine exhaust pipe near the engine. A slip joint type connection shall be provided where the exhaust piping penetrates the top of the enclosure. Pipe taps shall be provided to measure exhaust system backpressure.

The exhaust stack shall be designed and located to minimize interference with crane operation.

C660 BILGE AND BALLAST SYSTEM

A. BILGE SYSTEM:

A fixed Clean Bilge System shall be provided to remove water from all non-tank spaces in the hull. Each space shall have an independent, schedule 40 bilge suction pipe. The bilge suction shall be fitted with bell mouths and strainers sized with clear openings not less than 3 times the area of the suction pipe. All suction shall terminate in a single manifold. The contractor shall provide a compressed air powered diaphragm style pump rated at 25-GPM. The discharge shall be directed overboard through the side shell at least 1 foot above the design waterline.

B. BALLAST SYSTEM:

The Ballast System shall consist of the ballast pump, manifold, piping and ballast tank located in the hull as shown on the concept arrangement drawings. A branch line shall be provided to the ballast pump from the sea chest. The vents for the ballast tanks shall be sized in accordance with the ABS Rules.

The ballast system shall be configured for ballasting and deballasting the ballast tank to control the draft and trim of the barge. The system shall have 6-inch, suction and discharge piping. The suction inlet inside the tanks shall have smooth transition bell mouth opening located close to the tank bottom. The tank shall be provided with a sounding tube having a 3/16-inch steel striker plate at the bottom.

One centrifugal type, dedicated ballast pump shall be provided in the Machinery Room. The pump shall be sized to deliver 650-GPM at approximately 30 feet of total head. The actual TDH requirements shall be calculated by the Contractor based on the final piping arrangement. The pump shall be powered by a 480 VAC, 3 phase, drip proof motor provided with local controls only. The pump shall be located low in the vessel to ensure that the pump suction and its connection to the sea chest header are below the light ship draft line at all points.

A manifold shall be provided as near as practical to the ballast pump.

The Contractor shall provide two (2) inclinometers located at the ballast pump and two (2) on the sides of the deckhouse to indicate longitudinal and transverse inclination of the barge. The inclinometers shall be single tube design with one bubble type spirit filled

glass tube, with stainless steel graduated scale 0-5 degrees each side of vertical in 1/10 degree divisions, similar to MOELLER INSTRUMENT CO. Clinometer No. 457. The inclinometers shall be installed in a stainless steel or aluminum box with lexan cover to protect them from damage.

Remote reading electronic ballast sensors similar to the NASC Optima series Electronic Liquid Level Transmitters shall be provided for each ballast tank. There shall be an electronic display near the ballast pump capable of showing the level in each tank. An adjustable, audible high level alarm shall be included on the electronic panel.

Overboard discharges from clean bilge and ballast systems shall be separate and in compliance with ABS Rules.

The ballast system shall be of "freeze proof" design.

C667 SANITARY AND SEWAGE SYSTEM

The Contractor shall provide and install a self-contained electric toilet system similar to INCINOLET model WB as shown on the concept drawing. The system shall be USCG Certified (Type III MSD) with capacity for four (4) people.

C670 VENTS SOUNDS AND OVERFLOWS

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

All sounding tubes shall be 1½ inch nominal. In each tank, the sounding tube shall be installed to run as straight as practicable to the lowest point in the tank. Each sounding tube shall be of the flush mount type, with tee wrench to open. Located in the bottom of the tank directly beneath the sounding tube, there shall be a 3/8-inch thick, 4-x 4-inch steel striker plate. The striking plates shall be seal welded all around to the bottom plate of the tank.

C672 DRAINAGE SYSTEM

Deck drains shall be located at each corner of the deckhouse, to collect and drain water that accumulates behind the edge coaming. Drains shall consist of 2" diameter schedule 80 steel pipe run vertically through the main deck and then at an angle down to a point on the side shell above the vessel waterline.

The deck drain fittings shall be similar to WAGER Model 134-BW or MEMARCO (HAYWARD) Type DDBW. Strainers shall have removable bronze strainer plates.

Directional changes shall be provided in long radius bent pipe sweeps. Where elbows or fittings are used, clean-out fittings or pipe unions for disassembly must be provided.

C675 FIREMAIN SYSTEM

A raw water fire main/deck wash-down system shall be provided, in accordance with USCG regulations. The centrifugal pump shall be installed as low in the hull as possible.

A standard fire system shall be provided for fighting on board fires only.

The Contractor shall provide and install all the equipment and piping necessary to form a complete fire main/raw water system. The System shall serve the fire fighting, deck wash and ballast water requirements. The deck wash stations shall double as fire stations. The system shall consist of:

- Duplex strainer
- Raw water/fire pump
- Deck wash/fire stations stations
- Piping
- Gate washing water cannon

The system shall collect water from a single sea chest mounted to the bottom of the hull and fitted in a trunk space extending to the main deck. The sea chest opening in the bottom of the barge shall be provided with a perforated copper-nickel plate with a clear opening of at least three times the connected piping area.

The water entering the seachest shall flow through a strainer basket (made of copper nickel) that can be lifted vertically up through the seachest trunk and removed via a flush mounted hatch on the main deck for cleaning.

A valved common connection for compressed air blow down of the bottom perforated copper-nickel plate, (compressed air combined with chlorine solution and ice melt), shall be provided.

The system shall include branches to the ballast pump and fire pump. Suction lines to both pumps shall be located so as to be below the light ship draft line at all points.

Two deck wash/fire-fighting stations shall be provided on the main deck as shown on the concept drawing

Each deck wash/fire fighting station shall have a 1 ½ inch x 100 ft hose with a fog/stream type combination nozzle attached and a spanner wrench. The hose shall be mounted on a rack for easy payout of the fire hose.

A centrifugal deck wash/fire pump with an adjustable relief valve shall be provided to supply approximately 250 GPM of water for the deck wash / fire fighting stations, at a nozzle pressure of 125 psig when both deck wash stations are operating simultaneously. Pump controls shall be local (to the pump) as well as remote (for “start” only) from each station. This pump shall also provide water for the Gate washing water cannon located as

shown on the contract drawing. This manually controlled elevated fire monitor shall operate at a flow of ~500-GPM at a head of ~100-PSI.

Hoses and hydrant connects shall be furnished with rocker lugs and National Hose Threads.

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

C677 FIRE DETECTION AND EXTINGUISHING SYSTEM

A. FIXED FIRE EXTINGUISHING SYSTEM

The contractor shall provide and install a USCG approved, CO₂ fire extinguishing system to protect the Machinery Space and a separate system for the paint locker. All The CO₂ cylinders shall be located as shown on the concept drawing. Cylinders shall be mounted vertically, 2 inches off the deck, in a rack attached to either the floor or the bulkhead. An overhead hoist and rail system shall be provided for the removal, installation and in place weighing of the cylinders.

Actuation of the CO₂ systems shall be by a pull station located on the main deck, outside the stairway door for the engine room and on the outside of the bulkhead just forward of the office door. The systems shall be provided with an audible alarm in the Machinery Space to sound automatically when the system is actuated. A 30-second delay shall permit personnel to exit the space prior to discharge of CO₂. Both the delay feature and the alarm shall be powered by the CO₂ system alone. The actuation system shall be electrically connected into the Machinery Space and paint locker ventilation system to automatically shut down the fans upon actuation.

System piping shall be galvanized steel, ASTM A53 or A106. Pipe sizes $\frac{3}{4}$ -inch nominal or smaller shall be schedule 40; larger pipe sizes shall be schedule 80. Location and number of the nozzles shall provide the necessary quantity and uniform distribution of the CO₂.

Signs shall be prominently positioned at the entrance to the Machinery Space and Paint locker warning that the space is protected by the CO₂ system, and not to enter without breathing apparatus once the system has been actuated. Warning shall be posted inside the Machinery Space and the paint locker notifying personnel to evacuate should the alarm sound. Complete, but simple, instruction shall be posted in conspicuous place at the CO₂ station and at the manual pull station. Included with the instructions shall be a simple schematic detailing the system, and instruction detailing alternate methods of discharging the system should the remote release fail.

B. PORTABLE FIRE EXTINGUISHERS & AXES

Portable fire extinguishers, bracket mounted on the bulkheads, shall be provided in number, type, and location in accordance with applicable ABS and USCG rules.

Two fire axes shall be provided, mounted in brackets on the exterior deckhouse bulkheads, one forward and one after.

C. FIRE DETECTION AND ALARM SYSTEM

An electric Fire Detection and Alarm System shall monitor the Office, Day Room, Deck Locker, Deck Toilet, Machinery room and Storage rooms.

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

The system shall include electric smoke detectors with heat sensors wired to a detection cabinet that shall be located in the Office. The detection system shall be designed to sound alarm(s) to be heard throughout the vessel when a fire has been detected and automatically shut down 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.

The electrical fire detection system shall be in accordance with applicable USCG regulations, the National Fire Code, and all equipment shall be UL listed.

D. FIRE CONTROL PLAN

The Contractor shall produce a Fire Control Plan in accordance with the 1997 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 Office.

C685 HVAC

A. GENERAL:

The vessel shall often work in areas where sand blasting is taking place. As such consideration shall be given to designs for their ease of maintenance and ability to prevent particles from entering the interior spaces of the vessel. It is also critical to minimize deck obstructions for safety and operational reasons.

The vessel shall have heating, air conditioning and ventilation. Heating shall be provided in all spaces except for voids and tanks. Air conditioning and mechanical ventilation shall be provided in the Day Room and Office. Mechanical ventilation shall be provided in the Machinery Room and Store Room.

The heating and air conditioning systems shown on the contract drawing shall be sized to heat habitable spaces to 70° F when the outside temperature is 10° F, and to maintain air conditioned spaces at 75° F and 50% RH when the outside temperature is 91° F (D.B.), 74° F (W.B.). The Machinery Space and storage spaces shall be heated to only 50°F.

The spaces served by the HVAC systems shall be provided with controls linked to smoke detectors and heat sensors in the fire detection and alarm system. All ventilation fans and air-handling units shall shut down upon activation of the fire detection and alarm system.

All ventilation fans and air handling units shall be provided with controls linked to smoke detectors and heat sensors in the fire detection an alarm system and shall shut down automatically when the fire detection and alarm system is actuated.

The Contractor shall make provisions to automatically re-start the ventilation fans after the main electrical power is lost/shut down.

All ducting shall be of galvanized sheet metal with a coating classification of 1.25 commercial (SMACNA G90). The ducting shall be externally insulated.

Outside ventilation intake openings shall be sized not to exceed 1000 feet per minute air velocity, and the openings shall be supplied with:

- Stainless steel, removable, washable insect screen.
- ½” stainless steel, removable, washable bird screen over the insect screen.
- Exterior means of closure.

All balancing dampers shall be manual and readily accessible.

Any component of the system likely to produce condensation shall be provided with a condensate drip pan and pipe drain line. The drain line shall be easy to clean to prevent clogging, and can gravity drain to the deck drainage system.

All natural ventilation supply ducting should terminate as close to the deck as possible.

B. MACHINERY SPACE:

The Machinery Space shall have filtered air natural supply and mechanical exhaust. The contractor shall design the exhaust fan for one air change per minute while the engine is running and 1 change per minute when the engine is off. The Radiator fan may be used to supplement the exhaust fan when the engine is running. The exhaust fan shall be located in the Fan Room on the main deck.

Electric Space heaters with built in blowers shall be used to heat the engine room. These heaters should kept off the deck to avoid taking up usable space.

C. STORAGE ROOM

The storage Room shall be provided with natural intake and mechanical exhaust ventilation generally as shown on the Contract drawings. Supply duct shall terminate 12-inches above the baseline of the vessel.

The system shall provide 1 air change per 20 minutes.

Electric Space heaters with built in blowers shall be used to heat the storage room. These heaters should be kept off the deck to avoid taking up usable space.

D. DECK TOILET, DECK LOCKER & PAINT LOCKER

The Deck Toilet, Deck Locker, and Paint Locker shall be provided with mechanical exhaust to change the air at a rate of 1 change per 20 minutes.

The Paint locker shall have automatically closing dampers on its supply and exhaust as well as automatic shut off of the ventilation fan in accordance with applicable rules for CO2 protected spaces.

E. OFFICE AND DAY ROOM

During temperate climate days, when neither heating nor cooling is required, Office and Day Room shall be ventilated by the air handling units normally used to heat and air condition these spaces. Return air to the air handlers shall be diverted into branch lines leading to deck cowls containing duct axial exhaust fans, to provide flow-through ventilation. Motor-operated dampers shall be provided to close off the return side of the air handling units and open the branch lines to the outside exhaust fans. The exhaust air ducting shall have self-closing dampers that shut whenever the fans are stopped.

Air conditioning shall be supplied by a, split-system, DX unit. The system shall have an air handling unit located in the overhead of the office and ducting to distribute the supply air to both the office and the day room. The refrigeration units for the systems shall be located on the deckhouse roof above the fan room.

The air conditioning refrigeration unit shall have multi-step capacity control to load or unload the compressor to match changing cooling load requirements. The industrial grade, semi-hermetic compressor shall have suction cutoff unloading to eliminate unnecessary compression of refrigerant gases during unloaded operation; it shall be mounted on heavy-duty spring vibration isolators to minimize vibration transmission to the deck. Every effort shall be made to restrict the height above the deck house top of the units to minimize interference of crane operation. Temperature shall be controlled by a bulkhead mounted, Digital type, low voltage (24V), thermostat in the office.

Electric Space heaters with built in blowers shall be used to heat the storage room. These heaters should be kept off the deck to avoid taking up usable space.

F. ALL VOID SPACES

Void spaces shall have natural supply and exhaust.

C690 COMPRESSED AIR SYSTEM

A compressed air system with air dryer shall be provided for air tool operation and sea chest blow down. The compressor, which shall be as shown on the contract drawing, shall be a commercial, heavy duty, cast iron block, electrically driven, reciprocating unit with an 80-gallon receiver and rated for 16 SCFM @ 175 psi. The compressor and receiver shall be equipped with a safety relief and shut-off valves.

The compressor and motor shall be mounted on vibration isolators with a design transmissibility of 20% or less, and shall be furnished with an inlet air filter, loadless starting and pressure switch for automatic operation. The compressor discharge line shall be flexibly connected to the air supply system.

A low-pressure sensor switch shall start the compressor automatically, and the supply line from the receiver shall have a pressure gage with a pressure regulator.

The air receiver shall be ASME approved and ABS certified. The receiver shall be equipped with a relief valve, pressure gage, cartridge type desiccant dryer, drain valve and discharge shut-off valve with downstream union to connect to system piping.

All compressed air stations shall be provided with a filter/lubricator/regulator and quick connect fittings. One 125-PSI air station shall be located on each corner of the barge. The two (2) aft stations shall be located on the forward end of the spud wells. The two (2) forward stations shall be located on the side of the deckhouse near the corner. Two air stations shall be located on opposite corners of the machinery room.

A 1-inch line with valves and a pressure regulator shall be installed from the compressed air system receiver to the sea chest blow down.

All air systems piping shall be seamless black iron, ASTM A106.

C692 ALARM, CONTROL AND MONITORING

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

An indicator light panel board shall be provided in the office to show the status of equipment located in the Machinery Space i.e., "Running"/"Stopped" (Green/Red).

Necessary instrumentation and controls shall be incorporated to monitor and regulate various onboard systems for safe operation and performance.

C700 ELECTRICAL

All power outlets shall be supplied at 120 volts, unless otherwise required for specific equipment hook up. Exterior as well as interior receptacles shall be provided.

C701 GENERAL REQUIREMENTS

The design, construction and installation of all system components shall be suitable for marine service and the intended application. All system components shall be furnished new and unused. All machinery, equipment, materials and installation shall be in accordance with applicable IEEE, NEMA, NEC, and ANSI standards and codes. All the equipment furnished shall bear the approval of the Underwriters Laboratories, where applicable.

All electrical equipment furnished shall be classified by location in accordance with 46CFR Subpart 111.05 Hazardous Location. 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.

Equipment shall be treated to provide protection against corrosion, moisture, mold, and other destructive agents to which the equipment may be exposed.

The design ambient temperature for all electrical equipment shall be 50 degrees Centigrade (122°F) and all current carrying conductors shall be copper.

Space heaters energized from the ship's service 208/120 volt AC system shall be provided for generators, motors, switchboards and controllers to prevent condensation within enclosures during idle periods. The space heaters shall have an independent circuit with a dedicated breaker to de-energize.

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 methods approved by the COR. All electrical junctions, connections, switches and outlet boxes shall be cast brass, or bronze.

The Contractor shall provide a grounding conductor for all installed electrical equipment. The switchboard frame shall be grounded to the vessel structure by 150 ampere copper braids at two places.

The Conductivity of connections shall not be less than the conductivity of the connected cable. All bolts, screws, nuts, and washers shall be made of corrosion-resistant metal of adequate size for their functions. Lock washers or equivalent shall be used to prevent loosening of bolted connections throughout the electrical system.

Personnel protection, equipment location and enclosures shall be in accordance with the Regulatory Body requirements.

Warning signs advising personnel of all electrical hazards or dangers shall be posted. Warning signs shall be conspicuously located at eye level or above, in full and clear view of personnel. Signs shall be posted at locations on or near equipment that presents hazards to personnel.

Shore power connection and operating sequence procedure shall be posted at the shore power receptacle.

C705 ELECTRICAL SYSTEM

A. GENERAL

A marine-type Electrical Power System shall be provided to energize all of the vessel's electrical equipment. The system shall consist of an AC Section and a DC Section. The AC ship's service systems shall be 480-VAC 3-phase and 208Y/120-VAC 3-phase.

The Primary AC Power System shall be rated at 480-VAC, 3-phase, 3-wire and 60-Hz. Power to this system shall be supplied by the Diesel Generator or through the Shore Power System. This system shall energize the 480-volt loads.

In the Low Voltage 480-VAC Primary System, the Diesel Generator shall energize a Switchboard, which shall monitor and control the generator

In the 208Y/120-VAC Secondary System, the Transformer shall energize the Secondary System Main Distribution Panel, which shall distribute electricity to the 208-volt and 120-volt loads.

The DC System shall be provided to energize the Starter Motors, Radars, and Communication Equipment. The Alternator and the Battery Charger shall charge the Lead-Acid Batteries. Fuses and Circuit Breakers shall be located near the Battery to facilitate fault detection and minimize damage.

B. PRIMARY SYSTEM

A primary power system shall be provided, rated 480 volt AC, 3-phase, 3-wire, 60 Hz. Power to this system shall be supplied by the diesel generator or from the shore power receptacle. Although the crane is equipped with its own dedicated generator, the barge electrical system shall also be capable of supplying the crane electrical power requirements through a crane supplied slip ring connection.

C. SECONDARY SYSTEM

The secondary power for the vessel shall be supplied through a 480-208Y/120 volt transformer. The transformer shall be fed from the main bus in the switchboard. The secondary of the transformer shall feed the Main Distribution Panel. Transformers shall be of the dry type, natural air-cooled and with NEMA 12 enclosure. All transformers shall be sized to handle 125% of the system maximum rated load as calculated in the load analysis.

The primary and the secondary system shall be provided to power pumps, lighting, and assorted onboard equipment. The system shall be complete with power distribution hardware including switchboard, transformer, control panel, gauges, and protective devices.

D. DC SYSTEM

The DC system shall be provided and used for all DC loads including but not limited to generator starting, warning lights/beacons, and alarm systems. Self-regulating battery chargers with ammeters similar to NEWMAR HDM 50 shall be provided for charging the DC battery banks from the 208Y/120 VAC distribution system. Chargers shall be adjusted to ensure that trickle charge amperage reduces to zero at full battery potential. Charging of the 24 VDC starting battery bank shall also be accomplished by its respective 24 VDC generator alternator.

Batteries for fire alarm system shall be separate from generator starting batteries. Each battery bank shall be located in the deckhouse in a vented, high density Polyethylene box with a lockable hinged door. All batteries provided shall be suitable for marine use and shall be rated for a minimum of 200 ampere-hours.

If any battery charger is connected to a higher equipment voltage (>13.5VDC for a 12VDC system) and (>27VDC for a 24VDC system), the voltage to the charger shall be reduced by using the battery charger dividers to prevent damage to the batteries.

C710 LOAD ANALYSIS

The Contractor shall develop complete AC and DC load analyses based on the actual equipment selected for installation. The load analyses shall be provided to the COR for review and approval.

C715 FAULT CURRENT ANALYSIS

A complete AC and DC Fault Current Analysis shall be developed during the design phase to determine the short-circuit trip rating for all circuit breakers. The fault current analyses shall be provided to the COR for review and approval.

C720 ONE LINE DIAGRAM

A complete AC and DC One Line Diagram shall be developed during the design phase to determine the general arrangement of the electrical system components. The one line diagram(s) shall be provided to the COR for review and approval.

C725 CABLING

The cabling shall meet the requirements of IEEE-45. Cabling shall be single banked, neatly supported in cableways in longitudinal, transverse and vertical runs only. Double-banked wires in the cableways shall not be permitted. Cable shall not be run through the bilge spaces and the tanks.

All current carrying conductors shall be copper and continuous from end to end; splices shall not be permitted. Cables less than 12 AWG are unacceptable and shall not be permitted.

The cables shall be similar to L.F. GAUBERT, TNIA Series, rated 90 degrees C, armored, USCG & ABS approved. All cables used shall be basket weave aluminum armor type in accordance with IEEE-45 or equivalent (as classified by UL as IEEE-45 equivalent).

All cabling shall be provided with a grounding conductor to provide a path for all equipment grounds back to the switchboard.

Cables which may be liable to damage by operation of any machinery or by the handling of cargo, rope lines, stores, or other objects, shall be shielded by removable plates or other approved means.

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 brass with raised lettering and shall be securely fastened to the cable by banding.

Cable penetrations throughout non-watertight bulkheads shall have ample bearing surfaces. Cable penetrations through watertight decks or bulkheads shall use multi-cable transits or stuffing tubes. Watertight and gas/fire tight bulkhead penetrations shall be similar to Heavy-Duty/Nelson MCT Fire Stop multi-transit frames and blocks, (sized to the cable). 10% spare capacity shall be provided at multi-transits.

All fixed power and lighting cables shall be installed on galvanized steel cable trays or brackets. The cable trays shall not be filled more than 75% to allow for future loads. Additional penetrations at bulkheads and watertight bulkheads and decks shall be provided as well to allow for the future loads.

Cables shall be secured to vertical trays every two feet and every eight feet on horizontal trays with Kindorf cable retention devices. Cable entrances into switchgear, light fixtures, junction boxes, etc. shall be made using brass stuffing tubes.

The Contractor shall provide a voltage drop analysis and cable schedule for review and approval by the Marine Design Center. The schedule shall show the cable size, length, load, and % voltage drop for each circuit.

C730 LIGHTING

The barge shall be adequately lighted to meet the requirements of the design standards. The light fixtures shall meet the requirements of Underwriters Laboratories for marine duty, and shall be installed in the number, sizes and arrangement required to provide the value of illumination required by the Illuminating Engineering Society of North America for Marine Lighting. Interior lighting shall be provided in the Office, Day Room, Deck Locker, Deck Toilet, Machinery room and Storage rooms.

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

Interior lighting fixtures shall be fluorescent, high output, rapid start and cool white. Two Exterior lights shall be provided on each side of the deckhouse. Exterior lights shall be watertight, bulkhead mounted incandescent type fixtures.

Lighting switches shall be provided on the exterior deckhouse walls below each light. A switch at each entrance shall control internal lights. The electrical feeders to the external lights shall be provided with waterproof connectors.

Emergency lights shall provide light to illuminate all exit pathways to signal a clear path to leave any interior space on the vessel in the event of an emergency and loss of power. The emergency lights shall be self contained, watertight, automatically recharged, and battery powered. The emergency lights shall be arranged on a separate circuit with a 3-way switch, which can be set to automatically turn lights on upon power loss, turned on manually, and turned off manually. When Power is available these lights shall be powered through the 120v system.

The Contractor shall provide three DC warning light/beacons at the top of the deck house: one to be white for power out, one blue for general alarm, and one red for fire alarm.

A complete system of receptacles shall be provided to adequately service the vessel. The receptacles shall have correct and uniform poles. Ground Fault Circuit Interrupters shall be provided on the receptacles in the Machinery Room, and on the outside receptacles to protect the equipment operator from leaking current electrical shock. The outside receptacles shall be waterproof.

Duplex GFCI receptacles shall be installed every 10 ft along the perimeter of the interior of the deckhouse. Exterior, waterproof, GFCI receptacles shall be installed on the exterior of the deckhouse two duplex per side. Receptacles shall be 20 A, 120 V on individual circuits.

C740 SWITCHBOARD

A low voltage marine-type Switchgear, meeting the requirements of the USCG, shall be provided. The Switchgear shall be rated for 480-VAC 3-phase 60-Hz and sized for the Diesel Generator.

The Switchboard shall monitor the functions for generator controls and be capable of operating at 50-degrees Celsius ambient temperature.

The front and back panels shall be accessible, except where space is limited, in which case only front panel access shall be provided.

The circuit breakers shall be plug-in or draw-out type.

Direct line of sight for the crew from the front of the Switchboard to the Diesel Generator is preferred.

The switchboard shall be located as shown on the contract drawing, and is to be of commercial marine grade construction suitable for the intended use.

The switchboard shall be free standing and adequately supported to resist vibration, front accessible only, and fully serviceable from the front.

The switchboard shall include sections for monitoring and control the diesel generator. Draw-out type power operated air circuit breakers, similar to Siemens/ITE type SB or General Electric Power Break II, shall be provided for the generator. Molded case circuit breakers shall be provided for all other loads.

The switchboard shall include the following components and features:

- Space heater switch with indicating light
- Ground detection lights and test switch (480 V system)
- Ground detection ammeter and test switch (208Y/120 V system)
- Voltmeter
- Ammeter
- Frequency meter
- Wattmeter
- Generator power available indicating light
- Voltage regulator control rheostat
- Speed control rheostat
- “START” and “STOP” pushbuttons

- Generator breaker “CLOSE” pushbutton
- Emergency stop pushbutton
- Amp transducer
- Volt transducer
- Watt transducer
- Frequency transducer

For shore power, the switchboard shall contain:

- Voltmeter
- Ammeter
- Shore power available indicating light
- Phase sequence/loss system
- Phase reversal indicator & phase reversal switch with a center “OFF” position

The generator space heater shall be energized from the ship's service 208/120 V AC system. This space heater shall be controlled by an “ON” – “OFF” – “AUTO” switch located on the generator section of the switchboard. When in the “AUTO” position the space heater shall be energized whenever the associated generator breaker is open.

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

The generator breakers shall be provided with an adjustable long time delay trip, set at not more than 115% of the full load rating of the generator, and a short time delay trip that is set to provide maximum selective coordination with downstream circuit breakers.

The switchboard shall have the necessary control, detection, protection, instrumentation, inputs/outputs, and all other functions required by the system and regulatory bodies.

The shore power breaker shall be provided with adjustable time delay, under voltage trip, and trip characteristics to provide maximum selective coordination with downstream circuit breakers.

The shore power circuit breaker shall be a marine type molded case and equipped with a plug-in or draw-out type feature.

Generator and shore power circuit breakers shall be interlocked.

The switchboard shall be of size suitable to accommodate 25% spare circuit breakers (6 minimum), for future addition of circuits. Six spare branch circuit breakers shall be provided with trip ratings representative of the trip ratings for other loads. Any remaining “spaces” for circuit breakers shall be fitted with plug-in assemblies of appropriate frame size and blank cover plates.

C745 POWER DISTRIBUTION PANELS

Distribution Panels shall have 25% spare breaker capacity to allow for future growth.

A. AC PANELBOARDS

The power distribution panel shall distribute power to designated panels for general lighting, receptacles, and all other systems that operate on 208/120 volt. The number and ratings of the panel boards shall be selected based on the present total load requirements. Panel boards shall be located so that they are readily accessible. The panel boards shall be bulkhead mounted, dead front circuit breaker type, NEMA 12 enclosures, equipped with molded case plug-in circuit breakers.

The 208Y/120V 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.

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.

The circuit breakers in the panel boards shall have quick-make, quick-break, trip-free mechanisms. As a minimum, six spare breakers shall be provided for each distribution panel. The spare breakers shall have trip ratings representative of the trip ratings furnished for other loads. Any remaining "spaces" for circuit breakers shall be fitted with plug-in assemblies of appropriate frame size and blank cover plates.

B. DC PANELBOARDS

The DC distribution panel board shall include, but not be limited to the following basic components and features:

- Power available light for the system
- Line voltage meter
- Load current meter
- Power available light for each load

C750 MOTORS AND MOTOR CONTROLLERS

The Equipment Motors shall be rated for 50-degrees Celsius ambient temperature operation.

If the Motor size is larger than 10-HP, a space heater and reduced voltage starter shall be provided.

A Motor Control Center shall be provided to control the motors from one location.

Unless otherwise specified, all motors shall be 460 volt, 60 hertz, 3-phase, squirrel cage induction motors of NEMA Design B, C, or D with class F insulation to suit the application. AC motors for variable speed applications shall be inverter duty rated.

Motors shall have a continuous horsepower rating in accordance with listed motor standards.

All motors shall be drip-proof protected or waterproof, as appropriate for their location, and sized and designed for continuous operation of the driven auxiliary at rated capacity. All motors shall be self-ventilating. Space heater shall be provided in all motors 15 HP and larger.

All controllers for motors less than 10 HP shall be full voltage magnetically operated type. Motor starter control voltage shall be 120 volts.

Controllers arranged for automatic or remote operation shall also be provided with Hand-Auto or Local-Remote selector switch.

Motor bearings shall be of the factory lubricated anti-friction type.

All motor circuits shall have motor feeder short-circuit and ground-fault protection, disconnect means, motor branch-circuit short-circuit and ground fault protection, manual reset motor overload protection, and integral start/stop push-button set.

Exterior mounted controllers shall be mounted in watertight enclosures.

C760 SHORE POWER & OFF-VESSEL SERVICE

A. SHORE POWER

Shore power service receptacle with integral disconnect feature shall be provided to power the Ship's Service AC Systems through the Switchboard to energize the vessel's electrical components and equipment required during lay days.

The Shore Power Receptacle and mating plug on the vessel shall be reverse service (energized female plug) 480-VAC 3-phase 100-amp and rated as electrical disconnect. The hot plug shall automatically disconnect before draw-out.

A 100-foot long shore power cable shall be provided with plug on shore end to mate with customer's CROUSE-HINDS receptacle on the dock.

B. OFF-VESSEL SERVICE

480-VAC 3-phase 60-Hz Off-Barge Service shall be provided for energizing one or two 6-inch diameter dewatering pumps and one air compressor. Service shall be 100-amp.

One on board receptacle and mating plug similar to Meltric, normal service type (de-energized male plug), rated as electrical disconnect, shall be provided.

A 100-foot long shore power cable shall be provided with plug on the opposite end to mate with equipment being powered.

An "Off- Power Available" light shall be provided.

C800 SPARE PARTS

The manufacturer's recommended spares/filters and special tools shall be provided for engines, generator sets, and major equipment including the crane.

Spares shall be provided for all critical parts, start-up parts and maintenance parts to enable the vessel to operate for 2,500-hours without lost time due to awaiting parts.

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**PART I - THE SCHEDULE - SECTION D
PACKAGING AND MARKING**

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D01 PACKAGING

All spare parts, materials, and tool chests shall be packaged by the Contractor in weatherproof containers.

Parts that require preservation shall be preserved with a paint or other preservative coating acceptable to the manufacturer and the COR. All threaded parts shall be coated or filled with preservative and protected with plastic pipe caps or plugs as appropriate.

Spare parts, materials, and tool chests shall be packaged in Contractor furnished pallets or fixtures to raise them off the ground during storage, and to provide a lifting rig for moving them by crane, forklift, and truck.

D02 MARKING

All spare parts will be marked or labeled by the Contractor, with the following information:

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

This information shall be engraved on a plastic tag or metal plate and securely attached to each spare part with the exception of consumables.

In addition, where individual spare parts are packaged in crates or other containers, the crate or container shall be labeled with a stencil, in paint of a contrasting color, on at least three sides. The stenciled labels shall provide the same information as the part identification tag.

Where multiple spare parts are packaged in a crate or container, the requirement for stenciling the crate as stated in the previous paragraph shall apply, but, in addition, the crate shall contain an inventory card affixed to the inside cover of the container. The inventory card shall list each item in the container, including all information on the individual item tags.

**PART I - THE SCHEDULE - SECTION E
INSPECTION AND ACCEPTANCE
FOR CRANE BARGE**

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PART I - THE SCHEDULE - SECTION E INSPECTION AND ACCEPTANCE

E01 INSPECTION

The Contract shall 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 Contract, nor shall the presence or absence of an inspector relieve the Contractor from any requirements of the Contract.

During inspection tests and trials, the atmosphere in all interior spaces of the vessel(s) shall be tested daily, and shall be in accordance with the U.S. Occupational Safety and Health Agency Standards regulations stated in 29CFR 1915.31-36. The vessel(s) shall not be inspected and accepted by the Government without an NFPA Marine Chemist certificate for each hull compartment designated "SAFE FOR WORKERS".

Before any representative of the U.S. Government boards the vessel(s) for inspections and testing, each compartment or space to be inspected shall be certified "SAFE FOR WORKERS" by the National Fire Protection Association's (NFPA) certified Marine Chemist. This means that in the compartment or space so designated:

- The oxygen content in the atmosphere is at least 19.5 percent by volume and not more than 22 percent.
- 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 provide gas free and oxygen level certificates for all tanks prior to permitting entrance for work or inspection. This procedure shall be reflected in the Contractor's Quality Control Program. The Contractor shall notify the Government when these certificates have been issued.

Any inspections or tests can be conducted concurrently with the inspections or tests required by ABS.

E02 LAUNCHING

The Contractor shall provide a written notice to the Contracting Officer 10 calendar days prior to the launching. The Contractor shall carry out the necessary calculations required for a safe launching of the vessel(s).

Prior to launching the vessel, the hull interior and exterior surfaces shall be thoroughly inspected to verify compliance with the requirements of the specification. The vessel shall not be launched until the hull painting has been approved.

The Contractor shall be responsible for the successful launching operation of the vessel(s) at the times selected and mutually agreed upon by the Contractor and the COR.

E03 QUALITY CONTROL AND INSPECTION

During Phase II, the Contractor shall develop and submit to the COR, a CONTRACTOR QUALITY CONTROL AND INSPECTION PROGRAM, and a TEST AGENDA (or schedule), for the work required during Phase III of this Contract.

The QUALITY CONTROL AND INSPECTION PROGRAM and the TEST AGENDA shall provide for regular inspection and testing of the work in progress, and account for the preparation and maintenance of Quality Control documentation and records. The Program shall list the Contractor Representatives who are authorized to witness or perform, and sign for each inspection or test.

The following is an example of typical data to be recorded for each inspection or test:

- 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 performed the test or inspection, and date and signature of the Authorized ABS and Government Representative who witnessed the test or inspection (if applicable).

Work sub-Contracted and performed away from the Contractor's plant shall be covered by this inspection system as well. The Contractor cannot delegate the authority to witness, perform, and sign for tests and inspections conducted away from his plant, without approval of the COR.

When any workmanship, material, equipment or system 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 equipment shall be completely removed from the work and renewed. Any defects shall be remedied by the Contractor at no additional cost to the Government, except where work was performed on material or equipment furnished by the Government.

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

The TEST AGENDA shall be a complete, detailed schedule of all inspections and tests. The Agenda shall be arranged by day (i.e. day one, day two, etc.), not date, and shall list the specific inspections and tests, and the sequence in which these shall be performed.

The Contractor shall coordinate with ABS to assure that all tests required for class are witnessed by ABS, in order to obtain the required ABS certification.

E04 FACILITIES FOR PERSONNEL

While it is not intended that the Marine Design Center shall have a Resident Engineer's Office, the Contractor shall provide office space at the construction site for use by a Marine Design Center staff of three people.

The office space shall be convenient to the work site. The space shall be air conditioned, heated, ventilated, well maintained and well secured, and have toilet and shower facilities nearby. The space and facilities shall be suitable for both male and female staff.

The Contractor shall furnish two parking spaces within the construction site, in safe locations and near the assigned office space.

The office space shall be furnished, as a minimum, with 2 desks, 4 chairs, one commercial telephone, access to the Contractor's telephone system, and one drawing table suitable for layout of drawings. The commercial telephone shall have speakerphone capability.

The MDC Representatives inspecting the construction may bring with them cameras, and various items of communication and test equipment. The Contractor shall permit unencumbered ingress and egress to and from the shipyard and the vessel with such equipment.

Upon request, the MDC Representatives shall have the unrestricted use of the following office equipment at the Contractor's construction site:

- FAX machine with a dedicated outside telephone line.
- Photocopier with reduction/enlargement and sorting capability. The Contractor shall

- provide the photocopier with paper, fluids, toner and service.
- One, Pentium III (or equal) computer workstation with word-processing software (MS Word latest version).

E05 TRIALS, TESTS AND DEMONSTRATIONS

A. GENERAL

During Phase II, the Contractor shall obtain ABS and COR approval for all calculations, reports and drawings required to completely represent and demonstrate that the crane barge design meets or exceeds the requirements of this solicitation, and those for ABS certification.

During Phase III, the Contractor shall perform INSPECTIONS AND TESTING at his construction yard, according to the approved QUALITY CONTROL AND INSPECTION PROGRAM. The Contractor must obtain approval from ABS and the COR for inspections and tests that shall be conducted on the crane barge, to verify that the approved plans were followed, and to warrant compliance with quality assurance requirements.

In Phase III, the Contractor shall be concerned as well with the installation and assembly of the crane on the barge, the testing of the crane during the test phase, and final delivery.

The following 4 levels of inspection and testing shall be considered:

- LEVEL 1 - MANUFACTURING INSPECTIONS AND TESTS
- LEVEL 2 - INSTALLATION AND ASSEMBLY INSPECTIONS AND TESTS
- LEVEL 3 - DOCK TRIALS
- LEVEL 4 - FINAL ACCEPTANCE DEMONSTRATIONS

For these inspections and tests, the Contractor shall provide all labor, services, tools, materials, equipment, fuels, fluids, lubricants, testing media, and perform tests on all equipment, machinery, and systems, to verify that they perform in accordance with the intent described and specified in Section C, "DESCRIPTION/SPECIFICATIONS/WORK STATEMENTS."

For the 4 levels of inspection and testing, the Contractor shall rectify any deficiencies revealed during any level of testing; all retesting shall be completed satisfactorily prior to the commencement of the next level of testing.

The successful completion of all tests, trials, demonstrations and the existence of any deficiencies, shall be determined by the COR. The Contractor shall remedy all deficiencies.

During all Phases of this Contract, including testing, the Contractor is authorized to use sub-Contractors performing under his direction and supervision; however, the Contractor shall assume full responsibility for their work.

B. TEST REPORTING

For all levels of testing 1 through 4, the Contractor shall prepare The INSPECTION AND TEST MEMORANDA for the inspections, tests and trials. The Test Memoranda shall be submitted to the COR for review and approval during Phase II.

The Contractor shall prepare a Test Memorandum for each test, typed on 8-1/2 inch by 11 inch sheets of paper, single sided, and assemble them in three ring binders, with dividers for each equipment and for each system, to constitute the Inspection and Test Memoranda. The Test Memoranda shall become the TEST REPORT after all inspections and tests have been performed and logged in. The TEST REPORT shall be the completed version of the Inspection and Test Memoranda, with the "blanks" filled in with the test data.

The TEST MEMORANDA / TEST REPORT shall be arranged by system and LEVEL of testing according to the same outline, LEVEL 1 through LEVEL 4.

Each Test Memorandum shall describe the test procedure, and data taken. The procedure shall be in accordance with the "start-up" procedure for the equipment, as delineated in the operating manual of the equipment manufacturer, and shall reference the Operator's Manual used to format the test procedure. Data recorded in time intervals shall be tabular so that data trends can be easily recognized.

Each Test Memorandum shall describe instrumentation and equipment required for each test, and shall include space for relevant nameplate data, ambient conditions, tested parameter values for each time interval, comparative pass/fail values, comments, Contractor Representative witness and Government and ABS Representative witness signatures and date.

For each test, the acceptance criteria must be explicitly spelled out in the Test Memorandum, and concurrently, shall reference the applicable source standard.

The Contractor shall incorporate demonstrations of all controls, instruments, and alarms, into each test, and repeat them in the Final Acceptance Demonstrations, LEVEL 4 for the crew.

Within 3 days of the completion of any test on any level, a copy of the documentation of that test shall be provided to the COR for review.

Within 10 calendar days following the successful completion of the LEVEL 4 Final Acceptance Demonstrations, and prior to Final Payment, the final version of the TEST REPORT, including the test data and the results of all levels of inspections and tests, shall be bound in three ring binders, and submitted in triplicate to MDC.

Final Payment shall not be made until the TEST REPORT has been completely approved by the

Contractor and by the COR, all ABS required tests have been performed satisfactorily, and all ABS Certificates have been obtained.

C. PRE TRIAL INSPECTIONS AND TESTS (LEVEL 1)

The Test Memoranda for LEVEL 1 testing is the CONTRACTOR QUALITY CONTROL AND INSPECTION PROGRAM.

Vendor and Manufacturing Inspections and Tests shall be designed to insure proper construction and/or installation of equipment, piping, electrical systems, tanks, and exterior and interior fabrication.

The COR must be notified at least 5 working days prior to the scheduled commencement of any Vendor Tests or Manufacturing Inspections and Tests, which shall be scheduled in sequence as per the TEST AGENDA.

D. INSTALLATION AND ASSEMBLY INSPECTIONS AND TESTS (LEVEL 2)

The installation and assembly of the crane on the barge, shall be carried out by the Contractor.

Validation of the Crane Installation and Assembly shall be verified during the INSTALLATION AND ASSEMBLY INSPECTIONS, AND TESTS, (LEVEL 2). These tests shall be conducted by the Contractor against procedures written by the Contractor and approved by the COR / Crane manufacturer, and ABS, if applicable. The procedures shall be developed based on the crane installation and assembly documents.

During the crane installation and assembly, the crane manufacturer shall have at least one representative on site at the Contractor's yard, to provide survey support, and to ensure that the installation and assembly is executed properly, and according to the approved procedures. This service shall be provided at no cost to the Contractor.

It is the responsibility of the Contractor to obtain ABS approval of the Crane Installation and Assembly.

The LEVEL 2 tests on the crane barge shall be of sufficient scope and duration to assure that all machinery and equipment is properly installed and all systems are complete. The intent of this testing is to provide both the Contractor and the COR, reasonable assurance that installation of equipment and assembly of systems, have been executed satisfactorily, and that the crane barge is ready for formal Dock Trials (LEVEL 3).

The COR shall be notified, in writing, at least 5 working days prior to the scheduled commencement date of any LEVEL 2 tests.

As a minimum, the following LEVEL 2 Inspections and Tests shall be performed to the satisfaction of the ABS Surveyor (as applicable), and MDC representative:

1. HULL

All tanks and watertight bulkheads shall be tested in accordance with ABS Rules.

2. SUPERSTRUCTURE

All weathertight exterior bulkheads shall be hose tested for tightness prior to coating. All weathertight doors, windows, manholes, and hatches, shall be hose tested for tightness.

3. DOORS AND WINDOWS

Test the doors and windows using a water hose. Water shall not be able to pass through gaskets. Should the door prove defective, the Contractor shall replace the door with another one that shall pass the test.

4. SPUD SHOP TEST

Air test each spud to verify watertightness and load test to demonstrate structural integrity at the weldments. With the spud supported at the two ends, subject each side to a calculated test load at mid-span to stress the material to 75% of the yield point. Measure and record the midspan deflection, and ensure that no permanent deformation has occurred after the load is removed.

5. CRANE HEIGHT - VERIFICATION

Verification that the height of the crane does not exceed 48'-0" above the baseline of the barge in the stowed configuration shall be made as shown on the contract drawings.

6. PIPING SYSTEMS TESTS

All piping systems shall be flushed with their proper system fluids, to demonstrate system cleanliness and integrity.

During flushing of the fuel oil system, the engines shall be bypassed with a jumper line. After flushing, the jumper line shall be removed, strainer(s) shall be cleaned, and filter element(s) replaced.

After thorough flushing, hydrostatically test all piping systems for leaks at 1-1/2 times working pressure for a duration of no less than 10 minutes per test. Each system shall be inspected for leaks at the welds, fittings, hoses, etc.

7. COMPRESSED AIR

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

8. HYDRAULIC SYSTEMS

Upon completion of the installation, the systems 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.

9. POTABLE WATER

This system shall not be provided.

10. HVAC

Blow out with compressed air all installed ductwork. Operationally test each supply and exhaust fan, along with its ducting to ensure absence of leaks, adequate support, and acceptable vibration levels. Operationally test the air conditioning system to ensure proper operation and absence of leaks.

11. EXHAUST SYSTEMS

Blank off and test the flanges, welds, and gaskets of each exhaust system using compressed air and soap solution.

12. ELECTRICAL CABLING

Insulation resistance readings of all installed 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. A complete record of all readings shall be kept to assure that all circuits and equipments have been checked and for possible assistance in troubleshooting any discrepancies detected during subsequent testing.

E. DOCK TRIALS (LEVEL 3)

Dock Trials are the operability tests the Contractor must perform in the presence of the Contracting Officer's Representative to demonstrate the proper installation, operation, control, and performance of all equipment, machinery, and systems installed as part of this Contract.

Each test or demonstration shall include control, instrumentation and alarm operation as applicable. Dock Trials shall be conducted at the Contractor's facility, and shall be of sufficient scope and duration for the intended objective.

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 approved by the COR before Level 3 testing can proceed.

All testing and trials shall be conducted in the presence of a Government Representative and any vendor representatives required by the Contract. The tests shall be conducted in accordance with the TEST AGENDA.

The COR shall be notified, in writing, at least 5 working days prior to the scheduled commencement date of Dock Trials. The COR shall be notified immediately of any condition which would delay the conduct of Dock Trials.

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

The following are the minimum DOCK TRIALS required:

1. INCLINING TEST

The crane barge shall be inclined after the crane is installed and prior to the crane tests. The inclining experiment shall accurately determine the As-Built lightship weight and the coordinates of the center of gravity for the completed vessel.

The inclining experiment shall be conducted in accordance with ASTM F 1321-90. The Contractor shall provide an inclining test report, which gives the "as inclined" and "lightship" load condition displacements and CG (Center of Gravity) locations.

After the inclining test, several (no load) crane movements shall be performed as follows:

- With no load on the hook, the crane shall swing to 90 degrees (starboard side), and next to 270 degrees, (port side). The crane rigging radius shall not change. Pendulum readings shall be taken after each movement, as well as the vessel draft readings at the four corners of the barge. This shall be used to assess the heeling moment due to the crane own weight and CG. The change in LCG shall be ignored during the experiment.
- With the crane at 90 degrees over the starboard side, and next with the crane at 270 degrees over the port side, the crane boom angle shall be changed to cause the boom point to move transversely a known distance. Pendulum and draft readings shall be taken at each position. The initial and final boom angle shall be recorded. The change in the

rigging radius shall be calculated. The heeling moment divided by the change in the rigging radius shall equal the boom point dead load by experiment. The change in VCG shall be ignored during the experiment.

2. DIESEL GENERATOR SET

In the presence of an authorized diesel engine manufacturer representative, validate the installation and operation of the diesel generator engine as follows:

For each diesel generator set, demonstrate:

- Cold starting.
- Stability of operation
- Starting and stopping of the generator set from both its local and remote panels.
- Emergency push button stopping
- All engine controls, and instrumentation
- Alarms at the local panels. Ensure the proper operation of all alarm test circuits.
- Automatic shutdown for engine overspeed.

3. LOAD BANK TESTING

The diesel generator set shall be load bank tested. Operate the generator set at 1/4, 1/2, 3/4 and full loads in 15 minute intervals and then at 100% rated load (with the use of a load bank) for 4 hours. 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 100% load period.

4. ENGINE COOLING SYSTEM

Demonstrate proper cooling of the diesel generator. Inspect the system for leaks.

5. ENGINE EXHAUST SYSTEM

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

6. FUEL OIL SYSTEM

Ensure proper fuel oil flow to the diesel generator during operation. Demonstrate the ability of the diesel generator to take suction from the fuel oil tank. Demonstrate the operation of all remote operated shut-off valves.

Demonstrate the ability of the fuel oil transfer pump to transfer fuel from the fuel tank to the hose reel on the crane deck to the fuel oil tank on the crane. Demonstrate operation of the

transfer pump using both the local and remote controls.

Demonstrate the operation of the remotely located tank capacity gauges for the fuel oil tank and the audible and visual alarms.

The Contractor is responsible for maintaining the fuel tanks filled and for delivering the crane barge with the fuel oil tanks full.

7. WASTE OIL SYSTEM

Demonstrate the operation of the FLOCS System to draw a 5 gallon bucket from the farthest oil containment area in the Machinery Room, and from the crane drains and crane connection into 55-gallon storage drum.

8. BILGE SYSTEM

Demonstrate the operation of the bilge system using the bilge pump by taking suction of water from each compartment bilge suction and discharging the water overboard. Record the discharge pressure for the pump.

9. BALLAST SYSTEM

Verify calibration of the tank level indicators and the inclinometers.

Demonstrate the operation of the ballast system using the ballast pump to fill the ballast tank. Record the time required and calculate the average pump flow rate, based on the known size of the tank. Demonstrate the operation of the pump to partially empty the ballast tank through the overboard discharge.

10. POTABLE WATER

A potable water system shall not be provided on this vessel.

11. SANITARY & SEWAGE SYSTEM

A sanitary and sewage system shall not be provided on this vessel.

12. DRAINAGE SYSTEM

Demonstrate the operation and capability to drain water from the drains on the deckhouse top.

13. DECK WASH-DOWN SYSTEM

Demonstrate starting of the raw water pump. Demonstrate the ability of the raw water pump to

provide two streams (40 feet) of water simultaneously from the hoses at any two deck wash-down stations. Record the pump discharge pressure.

Demonstrate the operation of the water cannon.

Demonstrate removal and placement of the sea chest strainer basket.

14. FIRE DETECTION & ALARM SYSTEM

Demonstrate the operation of the fire detection system. The testing and trials shall demonstrate:

- The activation of the alarms from each smoke detector and heat sensor.
- The automatic shutdown of the HVAC System and any ventilation fans serving the deckhouse.

A representative of the alarm system manufacturer shall be present during the tests and trials of the detection and alarm system.

15. HVAC

Demonstrate the satisfactory operation of the air conditioning and ventilation system to cool, and to draw outside ventilation air to the air-conditioned and ventilated spaces.

Demonstrate the operation of each electric resistance space heater in each space. Measure and record the temperature of the heater air discharged from the in-line space heaters.

Measure and record the temperatures at each air register during the heating and cooling modes. Measure and record the cfm flow rate at each register. Demonstrate the operation of the temperature controls. Ensure that the smoke sensors/heat sensors activate the system's controls to shutdown the system in case of fire.

Demonstrate the operation of each manually adjustable damper at each duct outlet. Manually adjust the outside air damper for summer and winter operating conditions.

Demonstrate the two-speed operation of the supply and exhaust fans. Record the air velocities at each fan and duct discharge, and calculate the cfm flow rate. Demonstrate the operation of the ventilation fan in the toilets.

A representative of the air conditioning system manufacturer shall be present during the tests and trials of the system.

16. COMPRESSED AIR SYSTEM

Demonstrate the charging of the air receiver from atmospheric pressure up to the system design pressure. Record the amount of time to charge the receiver.

Demonstrate:

- That the compressor shall cut-in at ____ psig and shall cutout at ____ psig, approximately.
- Air flow to all air tool stations.
- The operability of all relief valves and receiver drain valves.
- The compressed air system blowdown of the sea chest.

17. CAPSTANS

Demonstrate the free running operation of the capstans in forward, reverse and stop. Perform pull test to demonstrate rated load capability. (The pull test can be performed at the manufacturer's facility).

18. SPUD WINCHES

Demonstrate the operation of the spud handling system by performing the following operations from both the local and remote control panels:

- Power-down and power-up operation at the rated speed.
- Stopping, braking and holding.
- Free fall operation. Lower the spud using the emergency free fall feature of the spud control system. Verify that the control friction clutch arrests the motion of the drum with minimum unspooling of the drum wire. Engage the drum clutch and withdraw the spud from the river bottom by power-up operation.
- Raise the spud to the stowage position and secure with the locking pin engaged.

19. AC ELECTRICAL SYSTEM

In order to demonstrate the operation of the electrical system, the Contractor shall perform approximately 1/2 of the Level 3 machinery tests using the diesel generator and the remaining 1/2 of the Level 3 machinery tests shall be performed using shore power supplied through the vessel's shore power receptacle. It is the Contractor's option as to which tests shall be powered from shore power and which tests shall be powered by the diesel generator; however, they shall be indicated in the test memoranda.

Switchboard:

Demonstrate the operation of all circuit breakers and all controls in the main switchboard. For the generator breaker and the shore power breaker(s), safely demonstrate all mechanical and electrical features. Demonstrate proper functioning of 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.

20. LIGHTING

Demonstrate operation of all:

- Interior lights, exterior lights, and floodlights. Demonstrate the operation of all lighting switches.
- Emergency lights.
- Navigation lights.
- Circuit breakers and "bulb-out" alarms in the navigation lighting panel.

21. RECEPTACLES

Demonstrate the operation of:

- All convenience receptacles by using 80% load for each receptacle. Check the receptacles for polarity. For GFCI types, demonstrate their ability to reset.
- The shore power receptacle to supply power to the vessel.
- Off-vessel receptacle using the load bank.

22. NOISE SURVEY

A noise survey shall be conducted on the vessel by the Contractor. The survey shall consist on the taking of sufficient noise measurements in each of the vessel spaces to determine noise levels. A report shall be prepared containing the survey results.

The Contractor shall identify the proposed sub-Contractor scheduled to complete this task and provide detailed qualifications for review and approval by the COR. The survey shall not be performed until the sub-Contractor is approved.

In order to perform this survey, at least two consecutive days of access to the vessel are required.

The following conditions must be met during the access days:

- The vessel must be structurally, electrically and mechanically complete with all systems operational.
- The noise surveyor must be able to request the shipyard (at any time) to operate any or all machinery. Sufficient support must be available from the shipyard to accomplish this. Note that this includes operating for extended periods of time.
- No activity, which may interfere with the survey, shall be conducted in or near the vessel.

The noise survey shall test and report airborne noise levels for all compartments and spaces on the barge except those compartments designated as tanks and voids. Measurements shall also be taken at the centralized spud winch control console and inside the crane cab.

For each outside area and interior space, measurements of the octave-band and overall A-weighted sound pressure levels shall be taken and recorded at a sufficient number of points to provide an accurate record of the noise characteristics of the entire space.

The test shall be conducted with machinery in operation as if at a work site. One diesel generator, the crane engine and the air compressor shall be operating at rated conditions throughout the test. All ventilation equipment and systems shall be in full operation. When taking sound level measurements in the crane cab, at the spud control console, on the open deck or inside the deckhouse, the crane shall be slewed from side to side so as to load the diesel, simulating typical working operations. In the spaces containing spud winches, measurements shall be taken both with and without the spud winch operating.

The noise survey shall be performed in general agreement with the recommendations of the Department of Transportation, U.S. Coast Guard, "Navigation and Vessel Inspection Circular Number 12-82 where applicable and as outlined here:

- The sound level meter shall meet the Type II requirements of the ANSI Specification for Sound Level Meters, S1.4-1971 (R1976).
- The noise measurement equipment shall be calibrated initially, at subsequent intervals of approximately four hours, at the end of tests and at any other time when tests are interrupted due to battery replacement, etc.
- The noise measurements shall be taken in decibels with the meter set on slow response using an A-weighting filter. Noise measurements shall be reported only to the nearest decibel. A measuring time of at least five seconds shall be allowed. If the meter fluctuates within a range of five dB maximum to minimum, an estimate of the level shall be made by visual averaging the travel of the needle.
- A wind screen shall be used over the microphone in locations where air motion is noticeable.
- Care shall be taken to note the existence of intermittent or cyclical characteristics of the noise environment and to take appropriate measures to account for this.

The noise survey report shall include the following information:

- A narrative description of the survey procedure, the findings, and conclusions or observations. The significance of Preferred Speech Interference Levels recorded shall also be included.
- A tabulation of the actual raw data taken in the survey for noise.
- Reduced data in the form of A-weighted sound pressure levels for each operating condition indicated in the approximate location of the reading, on plan view drawings or sketches of each space.
- Separate sheets shall have a plot of the average sound pressure recorded at each octave band center frequency, for each space and for each operating condition.

The Contractor is responsible for all costs incurred with bringing the vessel within the noise levels required by Contract clause C180.

The noise level with the crane operating at full power, shall be limited to 80 dbA on the main deck at a 50 ft radius distance around the crane, and inside the CAB shall not exceed 75 dbA. The crane Contractor is responsible for all costs incurred with bringing the crane in compliance with these noise levels.

F. CRANE DOCK TRIALS (LEVEL 3)

The dock tests shall culminate in the Crane Load Handling test which shall be performed only after successful completion of all component and system testing. The crane test shall demonstrate proper installation, operation, control and performance of the vessel as an integrated whole. Specifically, the strength and endurance of the crane shall be demonstrated.

The crane load handling tests shall be a fair weather demonstration of adequate crane strength and barge stability while handling the freely suspended loads typical of working operations in the fully revolving mode and the fixed lift over the bow mode.

Testing shall be at 100 percent of the design load of the crane. The operator shall boom-in to maintain test radius at all times. Ballast transferring during load handling operations is not permitted.

For the two modes of operation described above, the crane main hoist shall be tested at the short, intermediate and long radius.

The crane barge shall be ballasted to level-deck ready condition with boom stowed in the boom rest prior to fully revolving testing. Additional transferring of ballast during load handling operations is not permitted. The ready condition shall be recorded by sounding tanks, measuring freeboards and measuring water depth. The mooring lines shall not restrain flotation. Fuel oil

tank shall be ~50 percent full.

The vessel shall be made ready for the fixed lifting over the bow testing by ballasting the barge down by the stern so that when the load is freely suspended, the deck will be ~level and crane trim and list will be within limits of crane manufacturer's rating.

1. **MAIN HOIST TEST PROCEDURE – FIXED LIFT OVER BOW**

The main hoist load-handling test is a series of sequential maneuvers designed to progressively test the features of the crane and to do this in a safe manner. The specific maneuvers for fixed lifting over the bow are:

- Unloaded maneuver
- Backwards stability maneuver
- Rigging radius maneuver
- Initial fixed lift maneuver over bow
- Final booming maneuver

After each maneuver, the Contractor shall pause and record freeboards and crane data which will verify the condition of the vessel at the time of the maneuver. This sequence of maneuvers shall be repeated for all of the three different radii testing.

A. **Unloaded maneuver**

To demonstrate the operation of the crane raising the boom from the boom rest, raise and lower the boom, and verify the full limits of luffing travel with no load on the hook. The crane will rotate and hoist and lower the load blocks. Verify that the crane operates on its own power, and the slewing, booming and hoisting drives operate independently. Verify that the crane is capable to slew, boom and hoist at the same time. The clutches and brakes and other safety devices shall be demonstrated, (i.e. anti two-block and upper and lower boom kick-out). Verify sufficient hoist spooling with the boom point at the highest elevation for both the main hoist and the auxiliary hoist, and that required number of wraps of wire rope shall remain in the drums. Extend and retract the boom to the limits. Demonstrate power-up, power-down and controlled lowering on all hoists.

B. **Backwards stability maneuver**

This maneuver shall demonstrate maximum barge inclination with no load on the hook to the counterweight side of the crane. The boom shall be raised to the stops associated with the minimum operating radius on centerline and retracted condition. Next, the crane shall be rotated 90-degrees off centerline to PORT and 270 degrees to STBD. Last the crane will be placed on centerline again. With the crane steady in each position, the Contractor shall measure and record the barge freeboards (on centerline, at 90 and 270 degrees, and on centerline again).

C. **Rigging radius maneuver**

The horizontal distance from the axis of rotation of the crane to the center of the vertical hoist line or load block freely suspended shall be measured for a range of boom angles. This is the verification of proper calibration of the radius indicator, which shall be conducted with the boom on centerline forward, and the barge on an even keel for each radius verification. The crane will boom out or in, until the radius indicator in the cab reads the correct radius marked on deck, (main load block freely suspended near the deck). The radius indicator will be adjusted if required

D. **Initial fixed lift maneuver over bow**

The Government's representative shall check the certified weight of the test weight. When all is ready, the operator shall slowly begin to raise the test weight in a quasi-static condition while booming in to maintain radius. As the load is gradually ramped into the vessel at the boom tip, the vessel will slowly trim. When the load is freely suspended and the vessel is at equilibrium and even keel, the vessel trim (same as crane trim at this boom azimuth) will be less than or equal to the manufacturer's recommendation for crane trim for this loading condition.

The change in radius due to boom deflection shall be determined.

E. **Booming maneuver**

This maneuver shall demonstrate satisfactory operation of the boom hoist system. The operator shall boom-in the test load to the maximum permissible boom angle. During this maneuver, the operator shall smoothly stop and hold the load at least two times.

To complete the testing, the test load shall be drained first and then set down on the dock or quay.

2. **MAIN HOIST TEST PROCEDURE – FULLY REVOLVING**

The main hoist load-handling test is a series of sequential maneuvers designed to progressively test the features of the crane and to do this in a safe manner. The specific maneuvers for fully revolving lifting are:

- Initial lift maneuver over side of vessel
- Uphill swing maneuver over bow
- Downhill swing maneuver over corner of barge
- Crane strength maneuver
- ABS maneuver
- Final booming maneuver

After each maneuver, the Contractor shall pause and record freeboards and crane data, which will verify the condition of the vessel at the time of the maneuver. This sequence of maneuvers

shall be repeated for all of the three different radii testing.

A. **Initial lift maneuver over side of barge**

This test shall demonstrate how tough the vessel is with optimum setup for the crane to minimize risk. Crane list will be minimal. Subsequent test maneuvers will be with more confidence since the operator has already tested the rectangular barge in direction of least stability.

The Government's representative shall check the certified weight of the test weight.. When all is ready, the operator shall slowly begin to raise the load in a quasi-static condition while booming in to maintain radius. As the test weight is gradually ramped into the vessel at the boom tip, the vessel will slowly heel. When the test weight is freely suspended and the vessel is at equilibrium, the vessel list (same as crane trim at this boom azimuth) will be less than the manufacturer's recommendation for crane trim. This limit should be 3-degrees.

If for any unforeseen reason the vessel lists to the crane trim limit before the test weight is freely suspended, the operator shall stop hoisting and analyze the situation. Clinometers shall installed on the deckhouse, in the Machinery Room and in the crane cab for monitoring inclination of the crane.

B. **Uphill swing maneuver**

This maneuver shall demonstrate the ability of the swing drive and boom to work against an adverse crane list. During this maneuver the load will be moving up and in towards the operator. The maneuver shall be accomplished by swinging the test load directly over the bow of the barge.

C. **Downhill swing maneuver**

This maneuver shall be demonstrated with caution by continuing to slew the crane in the same direction until the boom is over the corner of the barge, which is an area of increased crane list. During this swing the load is moving downhill and away from the operator. This motion will tend to override the swing gear. Therefore, in an effort to keep the swing under control, the operator shall demonstrate satisfactory operation of the swing drive by smoothly stopping and starting the maneuver at least two times on the way around. The crane shall operate smoothly without jerky motions and sudden stops.

D. **Crane strength maneuver**

This maneuver shall demonstrate satisfactory boom and hoist performance when crane list is near to but less than the manufacturer's limit. With the boom still over the corner of the barge, the operator shall raise and lower the test weight from the water to maximum height and back to the water. During the raising and lowering sequences, the operator shall smoothly stop and start the operation at least two times to demonstrate satisfactory operation of the main hoisting

system, the power of the crane and the ability of the boom to withstand side loading.

E. **ABS maneuver**

This maneuver shall demonstrate 360-degree continuous swing of the test load. In anticipation of this maneuver, position the test load at the proper height to clear all obstructions. Then the operator shall swing the test weight 360-degrees in one direction and then 360-degrees in the other direction.

F. **Booming maneuver**

This maneuver shall demonstrate satisfactory operation of the boom hoist system. The operator shall boom-in the test load to the maximum permissible boom angle. During this maneuver, the operator shall smoothly stop and hold the load at least two times.

To complete the testing, the test weight shall be drained first and then set down on the dock or quay.

3. **AUXILIARY HOIST TEST:**

This test shall demonstrate satisfactory operation of the auxiliary hoist system including controlled lowering with empty hook. At 100 percent of the design load, the operator shall demonstrate the ABS maneuver at maximum radius and the crane strength maneuver.

G. **FINAL ACCEPTANCE DEMONSTRATIONS (LEVEL 4)**

Final Acceptance Trials are operability tests the Contractor must perform for the USACE operators. The intent of LEVEL 4 testing is to demonstrate the capabilities and features of the vessel to the operators, and to verify that the delivered product is in peak operating condition.

The Contractor shall notify the Government in writing when the vessel will be ready for final acceptance and coordinate agreement on a date mutually acceptable to the Contractor and the Government.

The Contractor shall operate all equipment and systems on the barge, to demonstrate their features, characteristics, and capabilities. The duration and complexity of each procedure shall be sufficient to fully demonstrate the operating condition to the operators.

Final Acceptance Demonstrations shall be conducted in the presence of the COR and the vessel(s) crew, following successful completion of Level 3 tests and correction of all deficiencies. The COR at his discretion may consider all or some LEVEL 4 trials completed during LEVEL 3 trials.

E06 FINAL INSPECTION

When all work and testing has been satisfactorily completed, the Contractor and MDC Representative(s), shall make a complete physical inspection and inventory of the vessel and crane, against all Contract requirements.

A "punch list" of deficiencies (if any), shall be developed and presented to the Contractor for corrective action.

All corrective action necessary to eliminate the "punch list" shall be completed by the Contractor. The Contractor shall give the COR, 3 working days notice prior to the desired date of re-inspection.

E07 PROVISIONAL ACCEPTANCE

Prior to Provisional Acceptance, the barge, the crane and all equipment shall be thoroughly cleaned and all painting and finishes put in first class condition.

Following satisfactory completion of all tests and trials, correction of all "punch list" deficiencies, and receipt of all Contract deliverables, the crane barge shall be Provisionally Accepted.

Delivery of the Crane Barge may not be started until Provisional Acceptance has been made.

E08 FINAL ACCEPTANCE

The vessel shall be subject to a complete re-inspection at the time and place of delivery.

Final Acceptance shall be made upon delivery of the Crane Barge, afloat and "Ready for Service" at the delivery point designated.

"Ready for Service" is defined as:

- Clean inside and out.
- All trash, dunnage, lashings, 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.
- Tanks filled.

- Paint damaged during transportation touched up.

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.

52.246-2 INSPECTION OF SUPPLIES--FIXED-PRICE (AUG 1996)

(a) Definition. "Supplies," as used in this clause, includes but is not limited to raw materials, components, intermediate assemblies, end products, and lots of supplies.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering supplies under this contract and shall tender to the Government for acceptance only supplies that have been inspected in accordance with the inspection system and have been found by the Contractor to be in conformity with contract requirements. As part of the system, the Contractor shall prepare records evidencing all inspections made under the system and the outcome. These records shall be kept complete and made available to the Government during contract performance and for as long afterwards as the contract requires. The Government may perform reviews and evaluations as reasonably necessary to ascertain compliance with this paragraph. These reviews and evaluations shall be conducted in a manner that shall not unduly delay the contract work. The right of review, whether exercised or not, does not relieve the Contractor of the obligations under the contract.

(c) The Government has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that shall not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract.

(d) If the Government performs inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the Government shall bear the expense of Government inspections or tests made at other than the Contractor's or subcontractor's premises; provided, that in case of rejection, the Government shall not be liable for any reduction in the value of inspection or test samples.

(e)(1) When supplies are not ready at the time specified by the Contractor for inspection or test, the Contracting Officer may charge to the Contractor the additional cost of inspection or test.

(2) The Contracting Officer may also charge the Contractor for any additional cost of inspection or test when prior rejection makes reinspection or retest necessary.

(f) The Government has the right either to reject or to require correction of nonconforming supplies. Supplies are nonconforming when they are defective in material or workmanship or are otherwise not in conformity with contract requirements. The Government may reject nonconforming supplies with or without disposition instructions.

(g) The Contractor shall remove supplies rejected or required to be corrected. However, the Contracting Officer may require or permit correction in place, promptly after notice, by and at the expense of the Contractor. The Contractor shall not tender for acceptance corrected or rejected supplies without disclosing the former rejection or requirement for correction, and, when required, shall disclose the corrective action taken.

(h) If the Contractor fails to promptly remove, replace, or correct rejected supplies that are required to be removed or to be replaced or corrected, the Government may either (1) by contract or otherwise, remove, replace, or correct the supplies and charge the cost to the Contractor or (2) terminate the contract for default. Unless the Contractor corrects or replaces the supplies within the delivery schedule, the Contracting Officer may require their delivery and make an equitable price reduction. Failure to agree to a price reduction shall be a dispute.

(i)(1) If this contract provides for the performance of Government quality assurance at source, and if requested by the Government, the Contractor shall furnish advance notification of the time (i) when Contractor inspection or tests shall be performed in accordance with the terms and conditions of the contract and (ii) when the supplies shall be ready for Government inspection.

(2) The Government's request shall specify the period and method of the advance notification and the Government representative to whom it shall be furnished. Requests shall not require more than 2 workdays of advance notification if the Government representative is in residence in the Contractor's plant, nor more than 7 workdays in other instances.

(j) The Government shall accept or reject supplies as promptly as practicable after delivery, unless otherwise provided in the contract. Government failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability on the Government, for nonconforming supplies.

(k) Inspections and tests by the Government do not relieve the Contractor of responsibility for defects or other failures to meet contract requirements discovered before acceptance. Acceptance shall be conclusive, except for latent defects, fraud, gross mistakes amounting to fraud, or as otherwise provided in the contract.

(l) If acceptance is not conclusive for any of the reasons in paragraph (k) hereof, the Government, in addition to any other rights and remedies provided by law, or under other provisions of this contract, shall have the right to require the Contractor (1) at no increase in contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or at the Contractor's plant at the Contracting Officer's election, and in accordance with a reasonable delivery schedule as may be agreed upon between the Contractor and the Contracting Officer; provided, that the Contracting Officer may require a reduction in contract price if the Contractor fails to meet such delivery schedule, or (2) within a reasonable time after receipt by the Contractor of notice of defects or nonconformance, to repay such portion of the contract as is equitable under the circumstances if the Contracting Officer elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the transportation cost from the original point of delivery to the Contractor's plant and return to the original point when that point is not the Contractor's plant. If the Contractor fails to perform or act as required in (1) or (2) above and does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure, the Government shall have the right by contract or otherwise to replace or correct such supplies and charge to the Contractor the cost occasioned the Government thereby.

52.246-15 CERTIFICATE OF CONFORMANCE (APR 1984)

(a) When authorized in writing by the cognizant Contract Administration Office (CAO), the Contractor shall ship with a Certificate of Conformance any supplies for which the contract would otherwise require inspection at source. In no case shall the Government's right to inspect supplies under the inspection provisions of this contract be prejudiced. Shipments of such supplies shall not be made under this contract until use of the Certificate of Conformance has been authorized in writing by the CAO, or inspection and acceptance have occurred.

(b) The Contractor's signed certificate shall be attached to or included on the top copy of the inspection or receiving report distributed to the payment office or attached to the CAO copy when contract administration (Block 10 of the DD Form 250) is performed by the Defense Contract Administration Services. In addition, a copy of the signed certificate shall also be attached to or entered on copies of the inspection or receiving report accompanying the shipment.

(c) The Government has the right to reject defective supplies or services within a reasonable time after delivery by written notification to the Contractor. The Contractor shall in such event promptly replace, correct, or repair the rejected supplies or services at the Contractor's expense.

(d) The certificate shall read as follows:

"I certify that on _____ [insert date], the _____ [insert Contractor's name] furnished the supplies or services called for by Contract No. _____ via _____ [Carrier] on _____ [identify the bill of

loading or shipping document] in accordance with all applicable requirements. I further certify that the supplies or services are of the quality specified and conform in all respects with the contract requirements, including specifications, drawings, preservation, packaging, packing, marking requirements, and physical item identification (part number), and are in the quantity shown on this or on the attached acceptance document."

Date of Execution: _____

Signature: _____

Title: _____

52.246-16 RESPONSIBILITY FOR SUPPLIES (APR 1984)

(a) Title to supplies furnished under this contract shall pass to the Government upon formal acceptance, regardless of when or where the Government takes physical possession, unless the contract specifically provides for earlier passage of title.

(b) Unless the contract specifically provides otherwise, risk of loss of or damage to supplies shall remain with the Contractor until, and shall pass to the Government upon--

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

(2) Acceptance by the Government or delivery of the supplies to the Government at the destination specified in the contract, whichever is later, if transportation is f.o.b. destination.

(c) Paragraph (b) of this section shall not apply to supplies that so fail to conform to contract requirements as to give a right of rejection. The risk of loss of or damage to such nonconforming supplies remains with the Contractor until cure or acceptance. After cure or acceptance, paragraph (b) of this section shall apply.

(d) Under paragraph (b) of this section, the Contractor shall not be liable for loss of or damage to supplies caused by the negligence of officers, agents, or employees of the Government acting within the scope of their employment.

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PART I - THE SCHEDULE - SECTION F

DELIVERY OR PERFORMANCE

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F01 FAR 52.211-8 TIME OF DELIVERY (JUN 97)

(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 and Scheduling	1 job	60 calendar days
0001AB	Engineering	1 job	210 calendar days
0001AC	Construction, Testing, and Delivery	1 job	365 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 and Scheduling	1 job	___ calendar days
0001AB	Engineering	1 job	___ calendar days
0001AC	Construction, Testing, and Delivery	1 job	___ 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.

F02 PLACE OF DELIVERY - FOB DESTINATION REQUIRED

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

U.S Army Corps of Engineers
 Huntington District
 Marietta Repair Station
 Marietta, Ohio
 Ohio River Mile 172

F03 NOT USED

F04 FAR 52.211-11 LIQUIDATED DAMAGES

(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:	\$ 190.00
For Line Item 0001AB:	\$ 560.00
For Line Item 0001AC:	\$ 925.00

(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 FAR 52.242-17 GOVERNMENT DELAY OF WORK (APR 84)

(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)

PART I - THE SCHEDULE - SECTION G

CONTRACT ADMINISTRATION DATA

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G01 ACCOUNTING AND APPROPRIATION DATA

WORK ITEM CODE 001T18

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
5722 Integrity Drive
Millington, TN 38054-5005

G04 CONTRACT ADMINISTRATION

U.S. Army Corps of Engineers District, Philadelphia
ATTN: CENAP-CT-C
Wanamaker Building
100 Penn Square East
Room 643
Philadelphia, Pennsylvania 19107-3390

G05 252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

**PART I - THE SCHEDULE - SECTION H
SPECIAL CONTRACT REQUIREMENTS
FOR CRANE BARGE**

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PART I - THE SCHEDULE - SECTION H SPECIAL CONTRACT REQUIREMENTS

H01 CONTRACT ORGANIZATION

The Contract is divided into three basic phases:

- Phase I – Planning and Scheduling
- Phase II - Engineering
- Phase III - Construction, Testing and Delivery.

a. PLANNING

Planning shall be carried out by the Contractor, following receipt of the Notice of Contract Award (Award) and the Notice To Proceed (NTP) with "PLANNING AND SCHEDULING". In this first Contract phase, the Contractor must present planning information and develop the Contract and schedule to demonstrate a logical, orderly and workable approach to the Contract. The documents submitted must be acceptable to the Contracting Officer's Representative (COR).

The Notice To Proceed with "ENGINEERING" will not be issued until the planning and scheduling documents are complete and approved.

b. ENGINEERING

Engineering commences only after receipt by the Contractor of the Notice To Proceed with "ENGINEERING".

In this second phase of the Contract, the Contractor will be required to perform design and engineering. The Contractor is not authorized to begin physical construction until the Notice To Proceed to Construct, Test and Deliver is issued.

If the Contractor commences any layout, burning, welding, erection or other construction work prior to receipt of the Notice To Proceed with CONSTRUCTION, TESTING AND DELIVERY, he will be responsible for all rework resulting from the design review and drawing approval process accomplished as part of ENGINEERING.

c. CONSTRUCTION, TESTING AND DELIVERY

CONSTRUCTION, TESTING, AND DELIVERY is the final phase of the Contract and shall be started only after issuance of the Notice To Proceed.

During this phase of the Contract, necessary records and documents shall be completed, and the vessel shall be constructed, tested and delivered.

d. PHASE SEQUENCING

It is intended that the three phases outlined above for this vessel shall be performed sequentially.

The time allotted for each phase however, 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 and preparation and issue of the 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 the 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.

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.

CELRH CRANE BARGE

Contract Award - Receipt by Contractor of NTP Phase I (Planning)

Phase I Planning & Scheduling 60 Calendar Days	30 CD	Receipt @ MDC of initial submittal of all Phase I deliverables
	15 CD	Receipt by Contractor of MDC review comments
	15 CD	Receipt @ MDC of final revised Phase I deliverables (if necessary)

15 CD Receipt by Contractor of NTP Phase II (Engineering & Scheduling)

Phase II Engineering 210 Calendar Days	120 CD	Receipt @ MDC of initial submittal of all Phase II deliverables
	30 CD	Receipt by Contractor of MDC review comments
	30 CD	Receipt @ MDC of final revised Phase II deliverables (if necessary)

30 CD Receipt by Contractor of NTP Phase III (Construction Testing & Delivery)

Phase III 365 Calendar Days	Construction, Testing, Delivery and Final Acceptance
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H02 CONTRACTOR SUBMITTALSa. **PLANNING AND SCHEDULING PHASE SUBMITTALS:**

The following is a summary of the items that the Contractor must submit during the Planning and Scheduling Phase. All items must be received, reviewed and accepted by the COR (Contracting Officer Representative), before the Notice To Proceed (NTP) will be issued for the Engineering phase of the Contract:

<u>SUBMITTAL ITEM</u>	<u>CONTRACT CLAUSE</u>
Authorized Contractor Representative List	E03
Construction Plan	H06
Procurement Plan	H08
Sub-Contracting Plan	H09
Engineering Qualifications	H09
Submittal Schedule	H11
Drawing Index	H12

b. **ENGINEERING PHASE SUBMITTALS:**

The following is a summary of items that the Contractor must submit after the Notice To Proceed with the Engineering Phase of the Contract is issued. All items must be received, reviewed and accepted by the COR before the Notice To Proceed with Construction, Testing and Delivery Phase of the Contract will be issued. The following items are required:

<u>SUBMITTAL ITEM</u>	<u>CONTRACT CLAUSE</u>
Test Memoranda (Data Sheets)	E05
Material and Equipment Schedule	H10
Engineering & Drawings	C040, H12 & H13
Standard Details	H13
Substitutions List	H15
Quality Control Program for Phase III	E03
ABS approval of the design	C040

c. **CONSTRUCTION, ACCEPTANCE, AND DELIVERY PHASE SUBMITTALS:**

The following is a summary of items that the Contractor must submit after the Notice To Proceed with the Construction, Testing and Delivery Phase of the Contract is issued. All items must be received, reviewed and accepted by the COR before Provisional Acceptance (Clause E07) will be made. The following items are required:

<u>SUBMITTAL ITEM</u>	<u>CONTRACT CLAUSE</u>
-----------------------	------------------------

American Bureau of Shipping (ABS) Certificate	C004
Paint Manufacturer's Warranty Certificate	C405
Test Report	E05
Inclining Test Report	C155 & E05
Final Weight Estimate Report	C115
Final Trim & Stability Booklet	C155
Noise Survey Report	E05
Commercial Warranties	E09
As-Built Drawings	H14
Manufacturer's or Sub-Contractor's Drawings and Manuals	H16
Operator's Manual	H17
Record Photographs	H18
ABS Reviewed and Stamped Drawings and Documents	C004 & H13

H03 CONCEPT DESIGN

The drawings for the crane barge which are included within this Contract, represent a "Concept Design" for the subject vessel. The COR will provide CADD files of these drawings to the Contractor, upon written request.

During 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 long to meet the vessel delivery. Such circumstances shall be immediately identified to the COR by letter with a proposed resolution. Adjustments to the Contract required as a result of such circumstances, will be made under the "CHANGES" Clause.

Also during the Engineering Phase, the Contractor may propose substitutions for equipment and materials specifically required by the Contract. There must exist some compelling reason for making the substitution request. In the absence of compelling reasons for making the substitution, the request may be denied.

The Contractor's proposal for substitutions must clearly demonstrate with drawings, calculations, and technical data that the proposed substitution has equal form, fit, function, characteristics, capabilities and features as the equipment or materials specified. If the Contractor's proposal for substitution is accepted, the Contractor must carry out all engineering and design required to incorporate his proposal into the design at no increase in Contract cost and no extension of Contract completion. Such incorporation must be to the same level of detail and depth of engineering as other systems or features of comparable complexity. The Contractor will become responsible for ultimate satisfactory performance of all systems impacted or affected by the substitution and any affect of the substitution on the performance and operation of the completed vessel. Refer to clause H15.

H04 (NOT USED)

H05 REVIEW OF CONTRACTOR SUBMITTALS

The Marine Design Center (MDC) (the Government), will review the drawings, data and other material submitted by the Contractor in the various Contract phases.

Submittals from the Contractor must be clear as to what the submittal represents and the action the Contractor requires performed.

The Government's review is intended to be limited to the functional aspects of the submittals with limited technical review of a 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, USPHS 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 approval 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 - RESUBMITTAL NOT REQUIRED".

Submittals found to be generally acceptable to the Contracting Officer's Representative with qualifying comments will be marked "ACCEPTED" but may or may not require resubmission depending on the COR's assessment of the criticality of the comments.

ACCEPTED 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. Refer to clause H15.

Submittals for review by the Government will be return mailed in accordance with the Phase Sequencing Graphic, Refer to Clause H01. The Contractor shall plan the submittals schedule so that the review process will not affect his Contract performance.

H06 CONSTRUCTION PLAN

After receipt of the Notice To Proceed with Planning and Scheduling, 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. 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:

- Engineering
- Direct Construction Labor, separated into principal vessel areas
- Material Purchases separated into principal vessel areas
- Material Deliveries separated into principal vessel areas
- Construction of modules
- Test and Trials
- Delivery
- 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 AND SCHEDULING "
- Notice to Proceed with "ENGINEERING"
- Notice To Proceed with "CONSTRUCTION, TESTING AND DELIVERY"
- Final Inspection
- Tests and Trials
- 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 (NOT USED)

H08 PROCUREMENT PLAN

After Notice To Proceed with Planning and Scheduling, the Contractor shall submit a Procurement Plan for the vessel.

The Procurement Plan shall identify the major schedule controlling systems components and equipment in the vessel, estimated delivery time for each item, 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.

Major components and equipment for the purpose of this clause shall, as a minimum, consist of the following:

- Steel Plate and Shapes
- Crane
- Diesel Generator Sets
- Switchboard
- MSD unit
- Winches and Capstans
- Pumps and Compressors

Upon written approval of the Procurement Plan by the Contracting Officer's Representative (COR), the Contractor may commence procurement of any or all of those items on the plan.

Progress payments will be made in accordance with H21, PROGRESS PAYMENT BASED ON PERCENTAGE OR STAGE OF COMPLETION.

H09 SUBCONTRACTING PLAN

After Notice To Proceed with Planning and Scheduling, the Contractor shall submit a Sub-Contracting Plan for the Contract. This should not be confused with the SUB-CONTRACTING PLAN required of Large Business as a part of their affirmative action responsibilities.

The Sub-Contracting Plan shall identify the areas or features of the Contract or vessel which will be performed, all or in part by sub-Contractors. The plan shall identify the scope of work, sub-Contractor firm's name and reference to the sub-Contractor'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 sub-Contractors when requested by the Contracting Officer's Representative.

The Sub-Contracting Plan shall specifically address the Contractor's plan for design and engineering.

If any part of the Contractor's design and engineering is to be sub-Contracted, the Contractor shall also submit the sub-Contractor's qualifications, the scope of work and the Contract, purchase order or letter of intent.

If the design and 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 qualification for any "in house" engineering activities.

All persons employed as naval architects or marine engineers either by the Contractor or by any sub-Contractor shall be professionally competent by virtue of education, training, experience or licensing.

The Sub-Contracting Plan shall be in "spread sheet" format and shall be incorporated into the Material and Equipment Schedule of Clause H10.

Upon written approval of the Sub-Contracting Plan by the Authorized Representative of the Contracting Officer, the Contractor is authorized to proceed and to put the subContracts in place.

H10 MATERIAL AND EQUIPMENT SCHEDULE

After Notice To Proceed with "ENGINEERING", 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:

- 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 (MDC) 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 sub-Contractors.

H11 SUBMITTAL SCHEDULE

After receipt of Notice To Proceed with Planning and Scheduling, 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:

- 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 the time required 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 Planning and Scheduling, the Contractor shall prepare an index of all drawings to be prepared by the Contractor as part of this Contract. The list shall be subdivided into two parts.

The first part shall list all the drawings the Contractor intends or expects to prepare during the Phase 2 Engineering and Scheduling portion of the Contract.

As a minimum, the Engineering and Scheduling phase design effort shall include preparation of drawings and reports that completely address the topics listed on the following guidance index:

<u>DWG. NUMBER</u>	<u>DRAWING TITLE</u>	<u>DELIVERABLE</u>
• 569-C000-01	TITLE SHEET & DRAWING INDEX	DRAWING
• 569-C105-01	LINES PLAN	DRAWING
• 569-C105-02	TABLE OF OFFSETS	REPORT
• 569-C115-01	WEIGHT ESTIMATE	REPORT
• 569-C115-02	CRANE WEIGHT ESTIMATE	REPORT

• 569-C125-02	HYDROSTATIC PROPERTIES	REPORT
• 569-C130-01	TANK CAPACITY TABLES	BOOKLET
• 569-C140-01	FREEBOARD	CALCULATION
• 569-C150-01	DAMAGED STABILITY	REPORT
• 569-C155-01	INTACT STABILITY	REPORT
• 569-C155-02	TRIM & STABILITY	BOOKLET
• 569-C160-01	LOAD HANDLING STABILITY	REPORT
• 569-C160-02	SAFE WORKING LOAD CHARTS	REPORT
• 569-C170-01	DRYDOCKING PLAN	DRAWING
• 569-C180-01	NOISE AND VIBRATION CONTROL	REPORT
• 569-C185-01	INCLINING EXPERIMENT	REPORT
• 569-C205-01	OUTBOARD PROFILE	DRAWING
• 569-C210-01	INBOARD PROFILE	DRAWING
• 569-C215-01	GENERAL ARRANGEMENT	DRAWING
• 569-C245-01	MACHINERY ARRANGEMENT	DRAWING
• 569-C306-01	TYPICAL STRUCTURAL DETAILS	BOOKLET
• 569-C307-01	SHELL STRUCTURE	DRAWING
• 569-C308-01	DECK STRUCTURE	DRAWING
• 569-C309-01	TRANSVERSE STRUCTURE	DRAWING
• 569-C311-01	LONGITUDINAL STRUCTURE	DRAWING
• 569-C315-01	DECKHOUSE STRUCTURE	DRAWING
• 569-C317-01	MASTS & SERVICE STRUCTURES	DRAWING
• 569-C320-01	TANK STRUCTURE	DRAWING
• 569-C325-01	SEA CHEST STRUCTURE	DRAWING
• 569-C330-01	FOUNDATION STRUCTURE	DRAWING
• 569-C399-01	STRUCTURAL CALCULATIONS	DRAWING
• 569-C405-01	COATING SYSTEM	BOOKLET
• 569-C415-01	DOORS, WINDOWS, HATCHES & MANHOLES	DRAWING
• 569-C420-01	DECK FITTINGS	DRAWING
• 569-C425-01	WALKWAYS, RAILINGS & GRATINGS	DRAWING
• 569-C427-01	VERTICAL AND INCLINED LADDERS	DRAWING
• 569-C430-01	DECK COVERINGS	DRAWING
• 569-C435-01	INSULATION, WALL COVERINGS	DRAWING
• 569-C445-01	LIFESAVING AND SAFETY EQUIPMENT	DRAWING
• 569-C460-01	HULL MARKINGS	DRAWING
• 569-C550-01	SPUDS	DRAWING
• 569-C552-01	SPUDWELLS	DRAWING
• 569-C554-01	SPUD HANDLING SYSTEM	DRAWING
• 569-C630-01	FUEL OIL SYSTEM	DRAWING
• 569-C637-01	LUBE OIL AND WASTE OIL SYSTEM	DRAWING
• 569-C645-01	RAW WATER/FIREMAIN SYSTEM	DRAWING
• 569-C660-01	BILGE & BALLAST SYSTEM	DRAWING

• 569-C667-01	SANITARY & SEWAGE SYSTEM	DRAWING
• 569-C670-01	VENTS, SOUNDS & OVERFLOWS	DRAWING
• 569-C672-01	DRAINAGE SYSTEM	DRAWING
• 569-C677-01	FIRE DETECTION AND EXTINGUISHING SYSTEM	DRAWING
• 569-C685-01	HVAC SYSTEM	DRAWING
• 569-C690-01	COMPRESSED AIR SYSTEM	DRAWING
• 569-C692-02	ALARM, CONTROL & MONITORING SYSTEMS	DRAWING
• 569-C710-01	ELECTRICAL LOAD ANALYSIS	DRAWING
• 569-C715-01	FAULT CURRENT ANALYSIS	DRAWING
• 569-C720-01	ONE LINE DIAGRAM (AC)	DRAWING
• 569-C725-01	CABLING DIAGRAM	DRAWING
• 569-C725-02	CABLE SCHEDULE & VOLTAGE DROP ANALYSIS	DRAWING
• 569-C730-01	LIGHTING ARRANGEMENT & DETAILS	DRAWING
• 569-C740-01	SWITCHBOARD ARRANGEMENT & DETAILS	DRAWING
• 569-C745-01	POWER DISTRIBUTION PANELS	DRAWING
• 569-C760-01	SHORE POWER DETAILS	DRAWING

The second part shall contain all the 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, or required by the regulatory agencies.

Both parts of this index shall be complete with drawing title, MDC Drawing Number, the Contractor's drawing number (if any) and scheduled submittal date.

After review, revision, assignment of MDC drawing numbers and approval by the COR, the index will be updated and submitted monthly to the Contracting Officer's Representative.

The Government shall be the sole owner and have "Unlimited Rights" to all drawings listed on the drawing index.

System drawings shall consist of a simple system schematic on the first sheet with a Bill of Materials and a complete, detailed arrangement with sections and elevations as required on subsequent sheets. The Arrangements shall be to scale with equipment shown in actual outline form. The Contractor shall use three lines (centerline and two outside diameter boundaries) to depict large piping (3 inches or greater). Details of vents, sounds, and fills shall be included with their respective piping system drawing. Design calculations and catalog cutsheets created and gathered during system development shall be submitted with the drawing to expedite the review process. The calculations and cutsheets shall also be collated into the Final Design and Construction Compendium after construction.

H13 ENGINEERING AND DRAWINGS

a. ENGINEERING AND DESIGN

The Contractor shall perform and provide engineering services in order to:

- Develop the Final Design for the vessel.
- Obtain regulatory body approval.
- Develop detailed piping and cable routings.
- Develop shop drawings.
- Develop construction details.
- Prepare complete bills of materials.
- Obtain COR approval for NTP with Construction.

All drawings and documents prepared by the Contractor or substantively modified by the Contractor shall be forwarded to the Marine Design Center (MDC) for review, comment and approval.

Three copies of each drawing/document shall be furnished. One copy will be returned to the Contractor showing the Government review action.

It is the responsibility of the Contractor to schedule submission of the listed drawings/documents to allow time for review by MDC, without adversely affecting the construction schedule or submittals to ABS (refer to Clause H02).

All drawings shall be prepared in CADD form and shall conform to the American National Standards Institute (ANSI) Standard Y14. Drawings shall be in flat size, format A (horizontal or vertical) B, C, D or F as required by ANSI Y14.1. In no case will drawings in any other size or format be accepted. Title blocks shall conform to ANSI dimensions and shall be submitted to the Marine Design Center for approval.

The Government shall be the sole owner of the design and shall have "Unlimited Rights" in the duplication, use, re-procurement and disclosure of all drawings used in the development of the design and construction of this vessel.

The Contractor shall provide to the Contracting Officer's Representative copies of all pre and post Contract correspondence between the Contractor and ABS, including all correspondence from ABS to the Contractor.

The Contractor shall also provide to the Contracting Officer's Representative, approved and stamped copies of all drawings and documents reviewed by ABS, with all comments resolved (if applicable).

b. STANDARD DETAILS

It is not the intention of the Government to unnecessarily restrict the normal manufacturing and construction practices of the Contractor.

Prior to issuance of a NTP with Construction, Testing, and Delivery, the Contractor may provide to the COR, for approval, a list of the standard details (brackets, gussets, fittings etc.) that the Contractor proposes to incorporate into the design. Such list shall be accompanied by the Contractor's standard detail drawings.

If approved, the Contractor's Standard Details can be integrated into the Final Design drawings by reference and need not be resubmitted for review.

After issuance of a NTP for Construction, Testing and Delivery, requests for incorporation of standard details will only be considered in cases where Contract performance or design features will be improved.

c. DESIGN HISTORY

The Contractor shall develop and maintain a Design History of his involvement in the project. This history will be referred to as the Design Compendium.

The Design Compendium is intended to record and document the design and construction process.

The Design Compendium is organized by Project Phase and Work breakdown Structure (WBS) Task Numbers. The Compendium contains a section for each task.

Design data and calculations are to be clearly presented and easy to follow, with stated introduction, purpose, assumptions, references, method of calculation, discussion of results, summary of results and conclusions.

The design process is presented in a clear path indicating the selected design data as well as the rejected or voided data, and the engineering analysis which lead to each selection/rejection. All background engineering, catalog cut sheets, and vendor material validation sheets are included in the Compendium.

Catalog cut sheets must be representative of the equipment selected by the Contractor which meets the system requirements. Vendor material validation sheets will be prepared for each piece of equipment selected or tentatively selected. The validation sheet shall, as a minimum, consist of a telephone record to each vendor for each item verifying that the specified component is currently in production.

A "hard" copy of the Design Compendium shall be bound in clearly indexed three-ring binders, similar to 20th CENTURY PLASTICS D-Ring Binder, stock #D120SL.

The Design Compendium shall contain a table of contents. Each section, task number (WBS) shall contain:

- Applicable rules and regulations
- Correspondence
- Calculations

- Design Sketches
- Equipment Selection
- Catalog Cut Sheets
- Validation Sheet, Quotations & Spare Parts

H14 AS BUILT DRAWINGS

In order to provide a record of the "As-Built" vessel the Contractor shall update the vessel drawings and documents to clearly show the construction, details and systems of the vessel at the time of delivery.

All of the drawings 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" drawings shall be delivered as follows:

- Prior to FINAL INSPECTION, the Contractor shall submit one set of prints of the "As-Built" drawings for review and approval.
- Prior to PROVISIONAL ACCEPTANCE, the Contractor shall provide the following:
 - Two 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 35 mm "Silver" microfilms of the "As-Built" drawings mounted on MDC Standard aperture cards (cards will be furnished by the COR upon request by the Contractor). Cards are to be stored in protective plastic sleeves and indexed and stored in suitable three-ring binders similar to the CADD disks and microfiche.
 - One hard copy of the Final Design Compendium and one CD version of the Compendium in Adobe Acrobat Reader .pdf file format.
 - 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 Discs (CD) in AutoCAD R14 .dwg file format or higher. Each drawing sheet shall be a separate electronic file, with a filename which conforms to the file naming convention below. Multiple files may be provided per disc, but compression utilities such as PKZIP may not be used.

Each complete set of files on each CD, shall be encased in plastic jewel boxes, labeled, indexed in numerical order by filename furnished in protective plastic sleeves, and bound in a three-ring binder suitable for storage. The binder shall have the MDC hull number, MDC project number, and name of the vessel printed on the cover and the binding edge.

Drawing files shall be named based on the drawing phase, WBS number, task number, sheet number, and revision number. The following example will illustrate the naming convention:

- For the third sheet of a multi-sheet drawing with a drawing number of **285-C720-02** and a revision of "C" the drawing filename would be **C720023C.DWG**

The direct relationship between the drawing number and the drawing filename is as follows:

	<u>IN DRAWING #</u>	<u>IN DRAWING FILENAME</u>
<u>Design Phase</u>	The fourth character C in the example	The first character, C
<u>WBS Indicator</u>	The fifth through seventh characters, 720 in the example.	The second through fourth characters, 720 .
<u>Task Number</u>	The eighth and ninth characters, 02 in the example.	The fifth and sixth characters, 02 .
<u>Sheet Number</u>	The tenth character, 3 in the example.	The seventh character, 3 .
<u>Revision Indicator</u>	The eleventh character, C in the example.	The eighth character, C .
<u>File Extension</u>		.DWG

The Government shall be the sole owner of the design and shall have "Unlimited Rights" to use the "As-Built" drawings and materials for re-procurement, duplication and disclosure.

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 "Construction, Testing and Delivery", 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.

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 approved by the COR prior to issuing a NTP with Construction, Testing and Delivery.

The Contractor bears ultimate responsibility for satisfactory performance of all systems impacted or affected by an approved substitution as well as the operation of the completed vessel, as affected by the substitution.

Once a NTP with Construction, Testing and Delivery, has been issued, substitutions will not be considered.

H16 MANUFACTURER OR SUBCONTRACTOR DRAWINGS AND MANUALS

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 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 no larger than 8 ½ inches x 11 inches, and bound in hard covers of durable materials.

Manufacturer's or Sub-Contractor'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 AND DRAWINGS.

At least 30 days prior to FINAL INSPECTION, 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 four sets of the manuals and must be completed prior to PROVISIONAL ACCEPTANCE.

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.

The Contractor and his sub-Contractors shall grant "Unlimited Rights" to the Government for all the information and materials contained in the Manuals.

H17 OPERATORS MANUAL

The Contractor shall prepare and furnish an Operator's Manual that is intended to be a guide to the operation, maintenance, and utilization of the various systems on the vessel and the vessel itself.

The manual shall be arranged by MDC TASK NUMBER Work Breakdown Structure (WBS) and be 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 be bound in hard cover binders of a durable material, and shall contain simplified and reduced size arrangement and schematic and/or diagrammatic-on-arrangement drawings of each vessel system.

Four copies of the manual shall be provided prior to Final Acceptance. One copy shall be the "Master" copy and shall contain the original typed or reproducible version of the manual.

The Government shall be the sole owner and shall have "Unlimited Rights" in the use of the Operator's Manual and its component parts.

H18 RECORD PHOTOGRAPHS

a. CONSTRUCTION PROGRESS PHOTOGRAPHS

Twice monthly, the Contractor shall provide digital photographs to document the progress of the construction, the launching and tests and trials of the vessel.

Each set of photographs shall consist of a minimum of 10 to 20 shots, depending on the stage of the construction.

b. RECORD PHOTOGRAPHS

The Contractor shall furnish the services of a professional photographer to take digital color photographs upon completion of the vessel, as described below:

Exterior shots (not less than 20 shots of the vessel shall be taken) shall include:

- Each side
- Each end
- Port and Starboard 3/4 views (end-on)
- Elevated 3/4 views
- Action shots of the launching

Interior shots shall include views of each interior space from various angles (4 minimum per space), so as to display principal equipment and features.

The Contractor shall provide the digital files for each shot and four sets of prints.

Two selected shots of the vessel shall be custom printed in 11 x 14 size by Cibachrome process, mounted, double matted and framed under clear glass in suitable wooden frame. Four sets of these pictures shall be furnished to the Contracting Officer's Representative (Total of eight matted & framed color photographs).

H19 (NOT USED)

H20 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.

The Contractor shall mark all Government property with the following information:

CELRH
U.S. Army Corps of Engineers
Contract DACW61-02-C-00xx

Markings shall be in 3-inch letters in paint of a contrasting color. The markings shall be placed on at least 3 sides of each piece of Government Property.

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.

H21 PROGRESS PAYMENT BASED ON PERCENTAGE 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 approved 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 material delivered on the site and the Contractor 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 preceding retainer provision 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.

SECTION I Contract Clauses

CLAUSES INCORPORATED BY FULL TEXT

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 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) 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.

(End of clause)

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.

(End of clause)

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 debar 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)

52.215-11 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)

52.215-13 SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall--

(1) 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; and

(2) Be limited to such modifications.

(b) 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.

(c) 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 (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds 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.

(End of clause)

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)

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall--

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(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)

52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)

(a) Definition. HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) Evaluation preference. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer.

These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

___ Offeror elects to waive the evaluation preference.

(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.

(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

52.219-6 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE (JUL 1996)

(a) Definition.

"Small business concern," as used in this clause, 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 size standards in this solicitation.

(b) General. (1) Offers are solicited only from small business concerns. Offers received from concerns that are not small business concerns shall be considered nonresponsive and will be rejected.

(2) Any award resulting from this solicitation will be made to a small business concern.

(c) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term "United States" includes its territories and possessions, the Commonwealth of Puerto Rico, the Trust Territory of the Pacific Islands, and the District of Columbia. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply in connection with construction or service contracts.

(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)

52.222-3 CONVICT LABOR (AUG 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it prohibit the employment by the Contractor in the performance of this contract of persons confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

- (a)(1) The worker is paid or is in an approved work training program on a voluntary basis;
 - (2) Representatives of local union central bodies or similar labor union organizations have been consulted;
 - (3) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services; and
 - (4) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and
- (b) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(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 debaring 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 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Definitions. As used in this clause--

All employment openings means 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.

Executive and top management means any employee--

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

Other eligible veteran means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

Positions that will be filled from within the Contractor's organization means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings 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.

Qualified special disabled veteran means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

Special disabled veteran means--

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability--

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (i.e., a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) General. (1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status 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) Rate 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 apprenticeship, and on-the-job training under 38 U.S.C. 3687, 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 shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) Listing openings. (1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings 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.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency 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 agency, it need not advise the State agency of subsequent contracts. The Contractor may advise the State agency 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, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) Postings. (1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall--

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheelchair).

(4) 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 special disabled veterans, veterans of the Vietnam era, and other eligible veterans.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) Subcontracts. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor 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 SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(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 special disabled veterans, the number of veterans of the Vietnam era, and other eligible veterans 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 the total, the number of special disabled veterans, the number of veterans of the Vietnam era, and the number of other eligible veterans; and

(3) The maximum number and the minimum number of employees of the Contractor during the period covered by the report.

(b) The Contractor shall report the above items by completing the Form VETS-100, entitled "Federal Contractor Veterans" Employment Report (VETS-100 Report)".

(c) The Contractor shall submit VETS-100 Reports 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 between July 1 and August 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior 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 Contractor shall base the count of veterans reported according to paragraph (a) of this clause on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all special disabled veterans, veterans of the Vietnam era, and other eligible veterans 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--

(1) The information is voluntarily provided;

(2) The information will be kept confidential;

(3) Disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and

(4) The information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(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 determine 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 where 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) through (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)

52.225-13 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 constitute 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.

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.

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)

52.228-14 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.

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.

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. (DEC 1998)

(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. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. 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 as required by subparagraph (d)(2) of this clause. 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 dispute 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)

52.242-13 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)

52.242-17 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 (AUG 1987)

(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)

52.244-2 SUBCONTRACTS (AUG 1998)

(a) Definitions. As used in this clause--

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d) or (e) of this clause.

(d) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that--

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds--

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

None

(f)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting--

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination--

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(h) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

N/A

(End of clause)

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)

(a) Definitions. As used this clause--

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

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

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

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

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (JUN 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.246-17 WARRANTY OF SUPPLIES OF A NONCOMPLEX NATURE (MAY 2001) -
ALTERNATE II (APR 1984)

(a) 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 supplies, or approves specific services as partial or complete performance of the contract.

Supplies means the end item furnished by the Contractor and related services required under the contract. The word does not include "data."

(b) Contractor's obligations.

(1) Notwithstanding inspection and acceptance by the Government of supplies furnished under this contract, or any condition of this contract concerning the conclusiveness thereof, the Contractor warrants that for 365 calendar days after final acceptance--

(i) All supplies furnished under this contract will be free from defects in material or workmanship and will conform with all requirements of this contract; and

(ii) The preservation, packaging, packing, and marking and the preparation for, and method of, shipment of such supplies will conform with the requirements of this contract.

(2) If correction or replacement is required and transportation of supplies in connection with correction or replacement is necessary, transportation charges and responsibility for the supplies while in transit shall be borne by the Government.

(3) Any supplies or parts thereof, corrected or furnished in replacement under this clause, shall also be subject to the terms of this clause to the same extent as supplies initially delivered. The warranty, with

respect to supplies or parts thereof, shall be equal in duration to that in paragraph (b)(1) of this clause and shall run from the date of delivery of the corrected or replaced supplies.

(4) 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) The Contracting Officer shall give written notice to the Contractor of any breach of warranties in paragraph (b)(1) of this clause within 30 calendar days of discovery of such breach.

(2) Within a reasonable time after the notice, the Contracting Officer may either--

(i) Require, by written notice, the prompt correction or replacement of any supplies or parts thereof (including preservation, packaging, packing and marking) that do not conform with the requirements of this contract within the meaning of paragraph (b)(1) of this clause; or

(ii) Retain such supplies and reduce the contract price by an amount equitable under the circumstances.

(3) (i) If the contract provides for inspection of supplies by sampling procedures, conformance of suppliers or components subject to warranty action shall be determined by the applicable sampling procedures in the contract. The Contracting Officer--

(A) May, for sampling purposes, group any supplies delivered under this contract;

(B) Shall require the size of the sample to be that required by sampling procedures specified in the contract for the quantity of supplies on which warranty action is proposed;

(C) May project warranty sampling results over supplies in the same shipment or other supplies contained in other shipments even though all of such supplies are not present at the point of reinspection; provided, that the supplies remaining are reasonably representative of the quantity on which warranty action is proposed; and

(D) Need not use the same lot size as on original inspection or reconstitute the original inspection lots.

(ii) Within a reasonable time after notice of any breach of the warranties specified in paragraph (b)(1) of this clause, the Contracting Officer may exercise one or more of the following options:

(A) Require an equitable adjustment in the contract price for any group of supplies.

(B) Screen the supplies grouped for warranty action under this clause at the Contractor's expense and return all nonconforming supplies to the Contractor for correction or replacement.

Require the Contractor to screen the supplies at locations designated by the Government within the continental United States and to correct or replace all nonconforming supplies.

(D) Return the supplies grouped for warranty action under this clause to the Contractor (irrespective of the f.o.b. point or the point of acceptance) for screening and correction or replacement.

(4) (i) The Contracting Officer may, by contract or otherwise, correct or replace the nonconforming supplies with similar supplies from another source and charge to the Contractor the cost occasioned to the Government thereby if the Contractor--

(A) Fails to make redelivery of the corrected or replaced supplies within the time established for their return; or

(B) Fails either to accept return of the nonconforming supplies or fails to make progress after their return to correct or replace them so as to endanger performance of the delivery schedule, and in either of these circumstances does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure.

(ii) Instead of correction or replacement by the Government, the Contracting Officer may require an equitable adjustment of the contract price. In addition, if the Contractor fails to furnish timely disposition instructions, the Contracting Officer may dispose of the nonconforming supplies for the Contractor's account in a reasonable manner. The Government is entitled to reimbursement from the Contractor, or from the proceeds of such disposal, for the reasonable expenses of the care and disposition of the nonconforming supplies, as well as for excess costs incurred or to be incurred.

(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 this contract

(End of clause)

52.246-24 LIMITATION OF LIABILITY HIGH-VALUE ITEMS (FEB 1997) - ALTERNATE I (APR 1984)

(This clause shall apply only to those items identified in this contract as being subject to this clause.)

(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 who 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	(2)	25
Cost-reimbursement (includes cost-plus-award-fee; excludes other cost-type incentive Contracts)	(3) 25	(3) 25	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.

(c) 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)

252.203-7001 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)

252.204-7003 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)

252.209-7004 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)

252.223-7004 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 employee 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)

(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)

252.225-7012 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)

252.225-7031 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)

252.226-7001 Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts (Sep 2001)

(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 constitutes 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. 1452 (c).

“Interested party” means a 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 Contract shall use its best efforts to give Indian organizations and Indian-owned economic enterprises the maximum practicable opportunity to participate in the subcontracts it awards, to the fullest extent consistent with efficient performance of the contract.

(c) 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 and interested party challenges its status or the Contracting Officer has independent reason to question that status.

(d) 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, 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 will notify the Contracting Officer. No incentive payment will be made--

(1) Within 59 working days of subcontract award;

(2) While a challenge is pending; or

(3) If a subcontractor is determined to be an ineligible participant.

(e)(1) The Contractor, on its own behalf or on behalf of a subcontractor at any tier, may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee contract.

(iii) The target cost and ceiling price of a fixed-price incentive contract.

(iv) The price of a firm-fixed-price contract.

(2) The amount of the adjustment that may be made to the 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.

(3) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(4) 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.

(5) If the Contractor requests and receives an adjustment on behalf of a subcontractor, the Contractor is obligated to pay the subcontractor the adjustment.

(f) The Contractor shall insert the substance of this clause, including this paragraph (f), in all subcontracts that--

(1) Are for other than commercial items; and

(2) Are expected to exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

(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.

252.243-7001 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 (MAR 2000)

(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 Division of National Cargo, Office of Market Development, Maritime Administration, U.S. Department of Transportation, 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 agrees to 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) The Contractor shall include this clause, including this paragraph (h), in all subcontractors under this contract that--

(1) Exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation; and

(2) Are for a type of supplies described in paragraph (b)(3) of this clause.

(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)

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**PART III - SECTION J
LIST OF ATTACHMENTS
FOR CRANE BARGE**

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PART III - SECTION J

LIST OF ATTACHMENTS

J01 CONCEPT DESIGN DRAWINGS

The drawings and specifications provided with this procurement represent a "Concept" Design for the subject crane barge.

Arrangements have been developed sufficiently to arrive at an adequate level of confidence that the vessel is feasible, and that the design can be developed to meet the performance, the operational requirements and the design objectives of the U.S. Army Corps of Engineers (USACE), as stated in this procurement.

It is expected that the builder will be able to bid on this Contract, develop the detail design and to construct, test and deliver the vessel.

J02 DRAWINGS

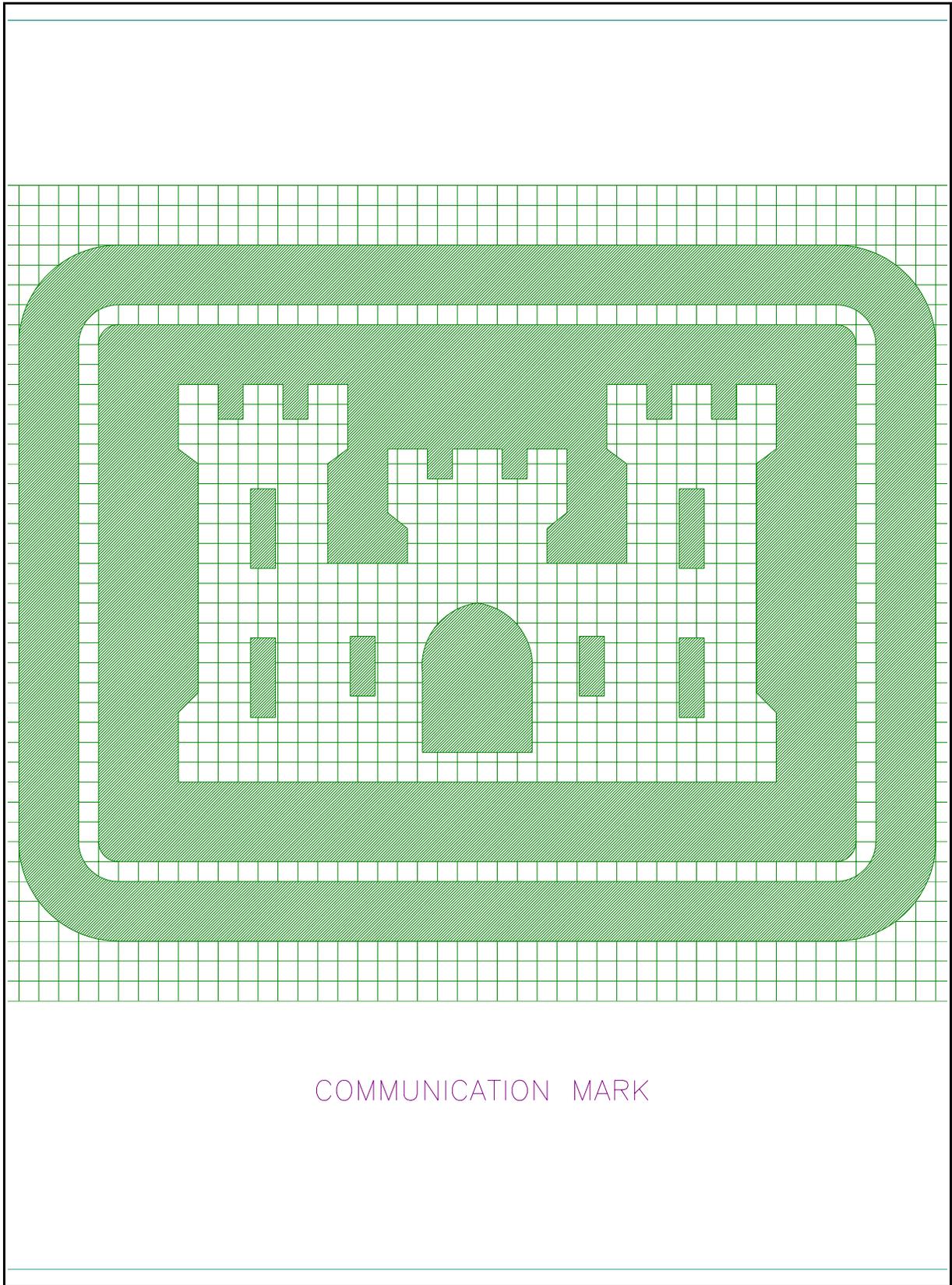
The following drawings form a part of this solicitation and describe the Concept Design of the Crane Barge for the Huntington District, USACE.

The Concept Design drawings listed below shall be a basis for the Contractor's development of the Final Design during the Engineering and Design Phase of the Contract. Please note that all drawings listed herein will also be provided to the successful bidder in AUTOCAD electronic file format.

<u>Drawing Title</u>	<u>Document Number</u>	<u>Form</u>
Outboard Profile	569-A205-01	Drawing
Crane Profile	569-A205-02	Drawing
General Arrangement	569-A215-01	Drawing

J03 COMMUNICATIONS MARK

The Contractor shall utilize the template provided on the following page when fabricating the Corps Communication Mark as required in Clause C460 - NAMEPLATES, NOTICES AND MARKINGS.



COMMUNICATION MARK

J04 PERFORMANCE EVALUATION FOR SERVICE & SUPPLY CONTRACTS

In accordance with Federal Acquisition Regulations 42.15 and Engineer Regulation 7151-1 dated July 5, 1996, this contract action is subject to the requirement for contractor performance evaluation in the elements listed in the form enclosed at the end of this Section.

At a minimum, the performance evaluation shall be completed within 45 days of completion of each years performance. Addition (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 resulting contract.

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SECTION K Representations, Certifications and Other Statements of Offerors

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) 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 --

(i) 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 provision _____ (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.

(c) 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)

52.204-5 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.

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 336612 (insert NAICS code).

(2) The small business size standard is 500 employees (insert size standard).

(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; and

(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)

52.222-38 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.

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 indebtedness 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 disclose 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)

SECTION L Instructions, Conditions and Notices to Bidders

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L-1 CLAUSES INCORPORATED BY FULL TEXT

The following clauses, with original paragraph numbering, are extracted from the Federal Acquisition Rules (FAR).

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) Contractor identification is essential for complying with statutory contract reporting requirements. Therefore, the offeror is requested to enter, in the block with its name and address on the Standard Form 33 or similar document, the annotation "DUNS" followed by the DUNS number which 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.

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, 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) represent 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 sub-line 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.

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm, fixed price contract resulting from this solicitation.

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:

Robert Sharamatew, Contracting Officer
 US Army Engineer District, Philadelphia
 100 Penn Square East, Rm 643
 Wanamaker Building
 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.

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.

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:

Management
Past Performance and Experience
Product

Price Factor:

Price Reasonableness

The technical factors as a whole are more important than price. However, price remains a significant factor in determining "Best Value."

B. MANAGEMENT EVALUATION CRITERIA

The Management Evaluation Criteria 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 the organization has the proper resources available, and has proposed sufficient resources to successfully perform the work required.

The Government may elect to visit offerors facilities to verify proposal information.

C. REQUIRED MANAGEMENT PROPOSAL SUBMITTALS

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:

C1. 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.
- Source of engineering design support.

C2. Human Resources for this Project

The offeror shall furnish resumes of the key 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.
- Engineering experience and certification of those providing engineering design services.

C3. 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.

C4. 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.

C5. Project Quality Control Plan

The offeror shall make a brief description of the organization's Quality Control/Quality Assurance Organization, and how it will be applied to this project. Copy of ISO certification shall be provided if applicable.

C6. Project Planning / Schedule

The offeror shall submit with the Proposal, a Plan of Action and Project Schedule, including duration in calendar days for 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 their proposed Project Schedule. Actual performance after Contract Award shall be compared against the proposed schedule, and shall be reported monthly to the COR with the Progress Payment request for approval.

Offerors proposing a total project duration that is shorter than the baseline project duration shown on page H-5 will NOT be rated better for this criteria than offerors not proposing a reduced schedule duration. Offerors should refer to the Contract Phase Sequencing graphic for important information regarding Government review durations and required resubmittal durations that must be included in the total project duration proposed by the offeror.

C7. 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.

D. PAST PERFORMANCE AND EXPERIENCE EVALUATION CRITERIA

Past Performance means the offeror's rating in formalized Government or customer surveys, including the Government's 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 two 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.

E. REQUIRED PAST PERFORMANCE AND EXPERIENCE SUBMITTALS

The offeror shall provide a discussion of the organization's Past Performance, making reference to ratings in formalized Government or customer surveys as applicable. If applicable, list any Contract that was terminated for the convenience of the Government within the past three years and any Contract that was terminated for default in the last 5 years. Explain the circumstances. If none, please so indicate.

The offeror shall also provide a discussion of the organization's experience on similar types of work over the past two years, describing the work done (vessel type), the principal dimensions of the vessels built, and the list of customers.

F. PRODUCT EVALUATION CRITERIA

The criteria for Product Evaluation of the Proposals is based on the assessment of the offered deliverables, equipment and features to provide quality, safety, performance and reliability in the proposed crane barge.

G. REQUIRED PRODUCT PROPOSAL SUBMITTALS

G1. List of Proposed Deliverables

The offeror shall provide a list of proposed deliverables that the Contractor will prepare during Phase II - Engineering (DRAWING INDEX). This shall include all the required items from clause H-02 Phase II Engineering, and the H-12 Drawing Index along with any other deliverables that the contractor intends to produce and offer.

G2. Major Equipment

The offeror shall provide a brief description (including make, model, and optional features) of major equipment and/or features offered, including; generator, spud winches, capstans, air compressor, and crane, that may clarify the Proposal, and demonstrate quality, enhanced safety, improved performance and reliability of the proposed crane barge.

G3. Preliminary Drawings

The offeror shall provide a refinement of the Governments RFP drawings at larger scale (i.e. refined conceptual design drawings showing general arrangement, which will allow the Government to validate intact and load handling stability) based upon the specific equipment offered. Major equipment selected by the contractor shall be shown to scale and as it will be located by outline of assembly and major components. The following preliminary drawings, which shall be drawn to ¼"=1'-0" minimum scale, shall be provided:

- **569-B205-001 OUTBOARD PROFILE**
- **569-B215-001 GENERAL ARRANGEMENTS** – The drawing shall include plan views of the hold, main deck, storage flat and the crane deck.

The intent is for offerors to update the Governments RFP contract drawings based on their specific selections of equipment, options and features. The Government will provide CAD files of the drawings, in AutoCad 14 or 2000 format, via e-mail upon request.

G4. Preliminary Calculations

The offeror shall provide the following preliminary information/calculations:

- **569-B115-002 CRANE WEIGHT ESTIMATE** – The crane weight estimate shall include weights and centers (l, t, v) of all major components of the crane. Longitudinal and vertical centers of each component shall be referenced to the boom pivot location.

G5. Additional Engineering and Calculations

It is anticipated that the offeror will perform some initial engineering and calculations in developing their price proposal. One likely example would be basic scantling calculations.

The offeror may furnish any background information pertaining to the vessel that may further identify specifics of the vessel that will be provided. Such information will be used by the Government in its technical risk assessment, where more technical definition generally equates to less risk.

H. 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 price of doing business with the offeror, based on the merits of the “Management,” “Past Performance and Experience” and “Product” Proposals.

I. REQUIRED PRICE SUBMITTALS**II. 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.

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SECTION L Instructions, Conditions and Notices to Bidders

CLAUSES INCORPORATED BY FULL TEXT

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@mail.dnb.com.

(End of provision)

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, 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 postaward 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)

52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data, offerors 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) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) 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;

(B) 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;

(C) 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 offeror 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 provision, 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 offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and 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 contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm-fixed price contract resulting from this solicitation.

(End of clause)

52.232-28 INVITATION TO PROPOSE PERFORMANCE-BASED PAYMENTS (MAR 2000)

(a) The Government invites the offeror to propose terms under which the Government will make performance-based contract financing payments during contract performance. The Government will consider performance-based payment financing terms proposed by the offeror in the evaluation of the offeror's proposal. The Contracting Officer will incorporate the financing terms of the successful offeror and the FAR clause, Performance-Based Payments, at FAR 52.232-32, in any resulting contract.

(b) In the event of any conflict between the terms proposed by the offeror and the terms in the clause at FAR 52.232-32, Performance-Based Payments, the terms of the clause at FAR 52.232-32 shall govern.

(c) The Contracting Officer will not accept the offeror's proposed performance-based payment financing if the financing does not conform to the following limitations:

(1) The Government will make delivery payments only for supplies delivered and accepted, or services rendered and accepted in accordance with the payment terms of this contract.

(2) The terms and conditions of the performance-based payments must--

(i) Comply with FAR 32.1004;

(ii) Be reasonable and consistent with all other technical and cost information included in the offeror's proposal; and

(iii) Their total shall not exceed 90 percent of the contract price if on a whole contract basis, or 90 percent of the delivery item price if on a delivery item basis.

(3) The terms and conditions of the performance-based financing must be in the best interests of the Government.

(d) The offeror's proposal of performance-based payment financing shall include the following:

(1) The proposed contractual language describing the performance-based payments (see FAR 32.1004 for appropriate criteria for establishing performance bases and performance-based finance payment amounts).

(2) A listing of--

(i) The projected performance-based payment dates and the projected payment amounts; and

(ii) The projected delivery date and the projected payment amount.

(3) Information addressing the Contractor's investment in the contract.

(e) Evaluation of the offeror's proposed prices and financing terms will include whether the offeror's proposed performance-based payment events and payment amounts are reasonable and consistent with all other terms and conditions of the offeror's proposal.

(End of provision)

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, Contracting Officer
US Army Corps of Engineers
Wanamaker Building, Room 643
100 Penn Square East
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)

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION M

EVALUATION 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 solicitation to the responsible Offeror whose proposal, conforming to the solicitation, 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:

Technical Factors:

Management
Past Performance and Experience
Product

Price Factor:

Price Reasonableness

The technical factors as a whole are more important than price, however, price remains a significant factor in determining "Best Value".

Further discussion of these factors, format and specific topics to be addressed in the proposal, are listed and described in Section L, "Instructions, Conditions, and Notices to Offerors", which contains the specific proposal submittal requirements pursuant to this Solicitation. Offerors are advised that each proposal submitted shall be complete and in the format required, with information organized as specified in Section L.

Furthermore, each Proposal shall be compatible with Section C - Description / Specification.

All Proposals will be reviewed initially for Proposal submittal compliance and for compliance with the requirements of the technical specifications in Section "C".

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 in price.

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