

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 18-Jul-2003	4. REQUISITION/PURCHASE REQ. NO. W25PHS-3149-0210		5. PROJECT NO.(If applicable)
6. ISSUED BY US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BLDG, 100 PENN SQ PHILADELPHIA PA 19107-3390	CODE DACW61	7. ADMINISTERED BY (If other than item 6) See Item 6		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		X	9A. AMENDMENT OF SOLICITATION NO. DACW61-03-R-0028	
		X	9B. DATED (SEE ITEM 11) 26-Jun-2003	
			10A. MOD. OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended.				
Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required) DESIGN, CONSTRUCT, TEST AND DELIVER ONE CRANE BARGE				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) THE ABOVE NUMBERED SOLCITATION IS AMENDED AS FOLLOWS: THE DATE AND TIME SET FOR RECEIPT OF PROPOSALS IS HERBY EXTENDED TO AUG. 6, 2003, AT 4:00 PM, LOCAL TIME. Section C: For Amendment 0001, make the following pen-and-ink a. On drawing no. 623-A215-01, General Arrangement, in zone B-14, change the note for the shop braveling bridge crane hook height from '10 ft, 6 in.' to '9 ft-0 in.' above deck. b. Drawing no. 623-A205-01, Outboard Profile, shows the correct location of the Shore Power Enclosure. Disregard the location for same shown on the General Arrangement drawing. c. The following text is deleted from drawing no. 623-A720-01, One Line Diagram, Sheet 2 of 3, General Note 10: "The generators should be able to be paralleled."				
continued on page 2 Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
		TEL: _____ EMAIL: _____		
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 18-Jul-2003	

SECTION SF 30 – BLOCK 14 CONTINUATION PAGE

INSTRUCTIONS FOR USING AMENDED PAGES

1. Pages provided by amendment are to be substituted into the original Request For Proposal (RFP) document. Where an existing page number is provided as part of the amendment, the amended page is to be inserted and the original page with the same number discarded. Where a new page is provided, such as C-XX-A, it is to be added to the RFP document. Pages not addressed by amendment remain unaffected.

2. The amended pages use a Redline/Strikeout technique to show changes from the last issue of the page and simplify the contractor's effort in locating the changes. The technique works as follows:

a. Text that is *added* appears as underlined, and is also indicated by margin revision marks. This text must be considered by the contractor in preparing a bid.

b. Text that is *deleted* appears as ~~strikeout, and is also indicated by margin revision marks~~. Text so designated has been deleted and only appears to allow contractors to quickly determine "what has been deleted". This text should be disregarded by the contractor in preparing a bid.

c. Text that does not have the above appearance has *not* been altered.

d. In some cases, an alphabetical character has been added to a page number, to create a new page that allows room for a replacement page or "overflow" text.

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C-5	Amendment 0001	18 July 2003
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PART I – THE SCHEDULE – SECTION C
DESCRIPTION/SPECIFICATION/WORK STATEMENT

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C006 SCOPE OF WORK

A. CONTRACTOR'S RESPONSIBILITY

The Contract shall consists of ~~three~~ two phases:

- Phase I Engineering & Scheduling
- Phase II Construction, Tests & Delivery

In accordance with the ~~three~~ two 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. DESIGN PROGRESSION

During Phase ~~II~~ I, Engineering & Scheduling, it is the Contractor's responsibility to provide appropriate design progression to minimize rework and to complete the Detail Design of the vessel based on the "Concept Design" developed for the vessel.

After some initial preliminary design development based on Contractor selection of equipment, scantlings, refinement of arrangements, structural analysis and weight estimating by take-offs, preliminary checks on vessel stability, strength and ability to meet the mission requirements shall be made at this time. These checks shall be made prior to the labor-intensive development of production details necessary to build the vessel, which shall follow.

The preliminary drawings/documents shall be made available for review and acceptance at a preliminary design milestone meeting attended by the customer and a Contracting Officer's Representative, held at Contractors facility not to last more than two days.

The Contractor shall schedule the preliminary design milestone meeting during the PLANNING ENGINEERING and SCHEDULING phase of the Contract and include the milestone on the ENG 2454 included in his Planning Phase I submittals. Not less than ten calendar days prior to the scheduled meeting date, the Contractor shall confirm the meeting date with the COR.

If it is determined that the vessel balances and meets the specification requirements, the Contractor shall proceed with the necessary production details of the Detailed Design. If not, adjustments shall be made at this stage of the design process, which shall minimize rework.

The Detail Design is the basis for construction and shall include all necessary production details. It is always completed prior to the start of construction.

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 & Reference Drawings

The contract drawings of the "Contract Design" are listed in Section J, Clause J01, Contract Drawings. The Contract Drawings are provided with these specifications for use as guidance in preparing the bid as well as developing the Detailed Design and production details.

Also provided as part of this solicitation are Reference Drawings. Reference Drawings shall be used in conjunction with the Contract Drawings and the specifications to finalize the Detailed Design of each vessel.

It is intended that the Reference Drawings provide general guidance to the Contractor in the methodology intended to develop specific systems or design features as called out in this specification. The exact details presented in the Reference Drawings may not reflect the specific needs of each the vessel.

The Reference Drawings provided with the specification are listed in Section J, Clause J01.

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,

C130 COMPARTMENT CAPACITIES

Tank capacity tables shall be provided for all ballast and consumables tanks.

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.

The minimum required independent tank capacities are as follows:

- Fuel Oil Storage 25,000-gallons
- Lube Oil 300-gallons
- Hydraulic Oil 300-gallons
- Waste Oil 1,000-gallons
- Gray Water Holding 2,000-gallons
- Potable Water 5,000-gallons

Inage capacity sounding tables shall be provided for all tanks identified above. Tables shall note location of sounding tube, and location and height of striker plate above baseline and tank bottom.

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 deadweight survey 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.

B. NOISE CRITERIA

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

1. Hull Level
 - a. Stores 80 dB (A)
 - b. Lower Engine Room 110 dB (A)
2. Main Deck Level
 - a. Exterior Deck 8075 dB (A)
3. Deckhouse
 - a. Office 65 dB (A)
 - b. 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.

C200 ARRANGEMENTS

C205 OUTBOARD PROFILE

The configuration of the vessel profile shall be generally as shown on the Contract guidance drawings.

~~The vessel shall have a low profile to satisfy the low bridge clearance requirements imposed on the Illinois Waterway system.~~

C215 GENERAL ARRANGEMENTS

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

A. MAIN DECK AND ABOVE

The vessel shall be arranged to provide readily accessible machinery and equipment to facilitate operation, maintenance, and inspection.

The vessel shall be serviced starboard side to dock. After generator start-up from the generator room, convenient access to the electrical panels in the shop shall be provided near the generator interior door leading to the shop.

Provisions shall be 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.

Deck obstructions shall be minimized and wherever possible clustered near major unavoidable obstruction, such as the spud well or the deckhouse.

Clear deck passage of at least 36-inches shall be provided outboard of the aft spud wells.

The Shop roof shall be used as a light storage flat with inclined ladder access on the aft end. The flat shall be cambered 5-inches to facilitate drainage of this area.

A complete Machine Shop shall be provided at the aft end of the barge with hoisting, milling, turning, drilling, pressing, saw cutting, plasma arc cutting, and arc welding machines and equipment.

On the forward end of the shop, deckhouse wings shall be provided housing the generator room and deck locker on the port side and the dayroom, locker room and head on the starboard side.

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.

F. LIFTING PADS

Lifting pads shall be provided and installed in the generator room and forward storage rooms to facilitate removal of equipment and movement of supplies.

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.

G. 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

A. GENERAL

The Contractor shall design and construct a steel deckhouse meeting the requirements of the ABS River Rules (Part 3, Section 6.17) generally as shown on the Contract drawings. All interior deckhouse bulkheads shall be vertically stiffened steel plate panel construction.

The Contractor shall develop a drain system for the house and Shop top during the Final Design Phase (see Clause C669).

B. SHOP STRUCTURE

The Contractor shall design and build a Shop with due consideration to the following features:

- Providing marine type construction conforming to the regulatory body requirements and snapping to the structural grid of the hull.
- Providing clear span roof structure capable of supporting a 150-PSF live storage load uniformly distributed over the entire area.
- Providing maximum hook height of overhead crane hoist with at least 9'-0" above the deck.

- Providing maximum headroom above the deck by providing transverse framing at every barge frame to reduce top frame depth.
- Providing independent stanchion support for overhead crane bridge rail girders bracket to the bent side frames at 15'-0" centers.

C317 SERVICE STRUCTURES

A CRANE STOPS

Portable and fixed stops for the crane in way of the crawler way curbs shall be provided which are addressed on Drawing. The forward portable stops shall be compact design with same width of crawler pad and height equal to excavator drive sprocket radius.

Provide and install enclosure plates on the top, aft sloping side and sides of the portable crane stops to prevent the entrance of rocks and debris into the ramp recess. The fit-up with the deck, shall be as tight as possible.

On the aft starboard fixed stop, there shall be a hinged cover to protect a waste oil drain.

B CRAWLER WAY CURBS

The crawler way curbs shall be provided as shown on the Contract drawing for the crawler crane width for the Manitowoc 2250 Series 3 crawler crane. A few inches of clearance shall be provided between the crawler pads and the curbing.

C CRANE TIE-DOWNS

Two (2) sets of four (4) deck mounted "D" rings for securing the crane during transit shall be welded to the deck generally as shown on the Contract drawing.

C320 TANKS

The vessel contains integral ballast tanks and independent consumable and storage tanks that shall be located in accordance with the contract drawings. The tanks are ballast, fuel oil storage, lube oil, hydraulic oil, waste oil, gray water holding and potable water.

Capacities shall be as stated in Clause C130. Capacity tables shall be created for the tanks in accordance with Clause C130 of the contract.

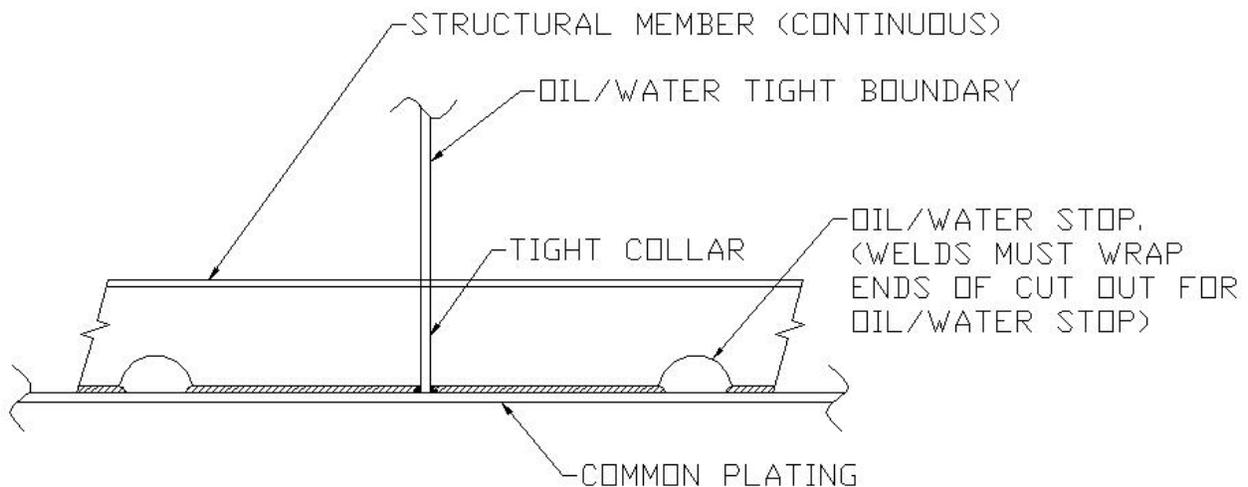
Tank construction shall be in accordance with the ABS rules. Interior baffles or swash bulkheads shall be provided as required for structural considerations. Limber holes in internal tank structure shall be provided, where applicable..

Tanks shall be complete with manholes, inspection ports, access ladders where applicable, filling connections, sounding tubes, tank level indicators, drains, vents and all necessary connecting piping, gauges and controls as required by the various clauses of this contract.

All tanks shall be of welded steel construction, except the potable water tanks, which shall be of welded stainless steel construction. The tanks shall be designed and constructed to meet the applicable ABS rules.

A minimum of 24-inches clearance shall be provided around all independent tanks. The fuel oil storage tank bottom shall rise 6-inches on transverse run from centerline to side, port and starboard.

As applicable, the Contractor shall install an oil/water stop for any structure passing through an oil-tight or watertight boundary of an integral tank. The oil/water stop is installed to prevent liquid from transiting from the tank via the structural member passing through the tank and the common plate. The size and location of the oil/water stop shall be acceptable to ABS and shown on the structural and tank drawings. See Sketch #320A for typical oil/stop details.



MDC SKETCH #320A, (TYPICAL OIL/WATER STOP DETAIL)

A welded, 316 stainless steel independent tank shall be provided and installed for the potable water. All the tank's connections, hatches and fittings shall also be of stainless steel. Structural stiffening interior to the tanks shall be 316 stainless steel. Exterior stiffeners may be of mild steel if welded in accordance with ABS requirements for stainless steel to mild steel.

Each tank shall be fitted with hatches in accordance with Clause C415 and access ladders in accordance with Clause C427, where applicable. Vents, sounds, and fills shall be in accordance with Clause C665.

C325 SEA CHEST

Reference Drawing: 557-D325-01 R0 SEACHEST INSTALLATION & DETAILS, REV 0

Pipe well-type sea chest shall be provided generally as shown on the contract guidance drawing. The sea chest shall be sized to provide water to the fire water system, and the ballast system. The suction pipe shall be totally below the lightship waterline and even keel ready draft waterline.

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

The sea chest shall be accessible from the main deck through lift-out watertight hatch.

The sea chest shall be fabricated of schedule 100 steel pipe of suitable diameter extending from the bottom shell to the deck in accordance with Reference Drawing 577-D325-01, SEACHEST INSTALLATION & DETAILS.

have cast steel covers and emergency escape handle. Manholes shall be similar to Baier Model BFHR24.

Deck ring shall be galvanized mild steel and shall be seal welded to the deck without distortion to facilitate a watertight seal with the cover.

F. 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.

Locks are keyed alike for each door.

C420 DECK FITTINGS

All deck fittings shall be continuously fillet welded to deck insert plates that are at least 1/8 inch thicker than the surrounding deck plate.

A. KEVELS

The Contractor shall provide and install 36-inch cast steel kevels, similar to NABRICO DF-482 with fair top, at the locations shown on the Contract drawing [623-A215-01, GENERAL ARRANGEMENT](#). [The kevels shown at the ends of the barge on this drawing are not to scale.](#)

B. BITTS

The Contractor shall provide and install 10-inch double bitts as shown on the Contract drawing.

C TOWING FITTINGS

Four (4) open chocks shall be provided as shown on Contract drawings.

C425 WALKWAYS, RAILINGS, GRATINGS AND FLOOR PLATES

A. RAILINGS

A three-course, fixed, pipe handrail shall be provided around perimeter of the Deckhouse top and Machine House top as shown on the General Arrangements. Wire rope life lines shall be considered to minimize obstruction of towboat pilot.

If pipe is used, railing stanchions and the top course shall be 1 1/2" Schedule 80 pipe with lower course being 1" Schedule 80 pipe.

The clothes washer/dryer area shall be enclosed in a 6" high watertight sill. A floor drain connected to the grey water system shall serve the area.

b. Day Room

The Day Room shall have a floor with an overlay similar to 1/8-inch Dex-O-Tex Magnabond, 1.25-inch thick Insulite insulation, and shall be covered with 1/8-inch thick rubber tiles similar to FLEXCO .raised circular design, color # RGT-735 Sea Fog,

c. Wet Spaces

The head and the locker room are considered wet spaces.

No floor covering shall be provided in these spaces. The decks in these areas shall be painted.

B. CEILING

1. Day Room and Office

A suspended, vinyl faced, gypsum sheet rock ceiling, 1/2 inch thick, shall be installed for the overhead of the Day Room and Office. 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

~~Joiner sheathing panels shall be provided for the Day Room, Office and the toilet space. Sheathing shall be single panel construction, 5/8 inch thick, with a 0.06" non-asbestos laminate applied to both faces making an overall thickness of 3/4 inch.~~

~~Single panel joiner bulkheads, 5/8" thick with a 0.06" non-asbestos laminate applied to both faces making an overall thickness 3/4" shall be provided for the forward and starboard bulkheads of the office space.~~

~~Sheathing and bulkheads shall be supported by a standard, approved, marine joiner framing/trim system painted to match the joiner panel.~~

~~The Day Room, Office and toilet space shall be fitted with a dropped ceiling providing approximately 7' 9" clearance above the finished floor. Ceiling panels shall be of 5/8" thick, moisture proof, fire retardant and non-asbestos material. The panels shall be supported by a standard, approved, framing system painted to match the panels.~~

~~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 full extension drawer slides, hinges and handles.~~

~~The color scheme of joiner work shall be selected by the COR from available color options.~~

C436 INSULATION AND SHEATHING

A. INSULATION

Insulation shall be provided for all companionways, exterior deckhouse bulkheads and deck heads, and for bulkhead and deck heads bordering the below deck machinery spaces and storage rooms (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.

The insulation system in combination with proper ventilation shall prevent sweating of the interior steel surfaces.

Insulation shall be of the fiberglass semi-rigid hull board type (similar to Claremont's, N3A Hull board) 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~~ faced on the inboard surface with a fiberglass scrim reinforced mylar damage resistant material similar to Claremont's "Tuff-Skin 1613". ~~Insulation in these spaces shall be faced with reinforced Mylar or its equivalent to prevent oil absorption and provide a reinforced vapor barrier.~~

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 shall 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

1. Installation

Sheathing shall be provided in all areas with insulation. 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.

A suitable production detail shall be provided at the top and bottom of the sheathing to reinforce the free edge and finish off the work.

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.

2. Machinery Spaces

Sheathing shall be 14 gauge perforated aluminum sheets with a minimum of 30% open area, and ~~shall remain unpainted. The perforated sheathing~~ shall have a white baked enamel or equal finish.

3. Storage Rooms

Sheathing shall be 14 gauge perforated aluminum sheets with a minimum of 30% open area, and ~~shall remain unpainted. The perforated sheathing~~ shall have a white baked enamel or equal finish.

PART I - THE SCHEDULE - SECTION E
INSPECTION AND ACCEPTANCE

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COR, such failed material or apparatus shall be completely removed from the work and renewed. The Contractor at no additional cost to the Government shall remedy any defects in workmanship or material, except where work was performed on material furnished by the Government.

E04 FACILITIES FOR PERSONNEL

A. GENERAL

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

~~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 Contractor shall also provide the MDC inspector(s), for their personal use and reference at the Contractors yard, one copy of:

- Every drawing. This shall be the latest revision at the end of Phase **III**, and shall become the "As-Built" drawings prior to testing.
- The approved revision of the test procedures prior to testing.

B. OFFICE, FURNISHINGS, AND EQUIPMENT

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

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

~~Light, heat, ventilation, and electricity shall be furnished together with daily janitorial service. A chilled water fountain, toilet, washing, and shower facilities (complete with soap and cloth towels) shall be provided convenient to the office, within the same structure, and on the same floor. Air conditioning shall be provided in the office.~~

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, two commercial telephone lines, one commercial telephone with speakerphone capability, access to both the Contractor's internal and external telephone service, and one drawing table suitable for layout of drawings. The second phone line shall be independent, so that a government owned laptop PC can communicate over the Internet simultaneously.

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.

~~C. TELEPHONE EQUIPMENT AND SERVICE~~

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

~~D. ELECTRICAL SERVICE~~

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

~~E. ELECTRICAL AND ADMINISTRATIVE SUPPLIES~~

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

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

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

~~F.C. ACCESS TO CONTRACTOR FACILITIES~~

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

~~G.D. PARKING~~

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

~~H. ADDITIONAL OFFICE EQUIPMENT~~

~~The Contractor shall provide access to the following equipment:~~

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

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

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

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

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

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

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

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

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

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

- The oxygen content in the atmosphere is at the least 19.5 percent by volume;
- Toxic materials in the atmosphere are within permissible concentrations;

- The residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's certificate.

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

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

E. SPECIFIC DOCK TRIALS AND DEMONSTRATIONS

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

1. Diesel ~~Engines~~ Generator Sets

For each diesel engine demonstrate the following in the presence of an authorized manufacturer's representative:

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

2. Load Bank Testing

Each diesel generator shall be load bank tested. Operate each generator set at 1/4, 1/2, 3/4 and full loads in 15 minute intervals, and then at 110% rated load (with the use of a load bank) for a minimum of 2 hours until the jacket water and exhaust temperatures stabilize.

On board loads may be used to supplement, or in lieu of, the load bank provided that the Contractor can demonstrate a stable load for the duration of the test including power factor. Load levels required below shall be based on the engine rating.

All engine and generator parameters shall be recorded at 5-minute intervals for the partial and full load periods, and at 15-minute intervals for the 110% load period. If the test is interrupted for any reason, the entire test must be repeated.

~~If applicable, o~~Operate the generators in parallel for two hours ~~each~~, at no less than 60% of the combined rated load. Record all engine and generator parameters at 30-minute intervals.

3. Engine Cooling System

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

4. Engine Exhaust System

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

5. Fuel Oil System

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

6. Bilge & Ballast System

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

- Verify flow rates.
- Ensure that all valves are operating properly.
- For ballast system, demonstrate flow by transferring between tanks.

7. Potable Water

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

8. Sanitary & Sewage System

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

9. Fixed Fire Extinguishing (CO₂) System

Demonstrate the proper operation of the installed CO₂ system. Tests shall be performed in accordance with the requirements of NFPA12, which includes demonstrating proper operation of the trip devices, nozzles, audible alarms and the automatic shutdown of the ventilation system fans. These tests may be done concurrently with the required ABS tests on this system. A Government representative must be present to witness the tests.

(Note: All tests shall be performed to the satisfaction of the ABS Inspector, responsible for issuing a Statement of Fact for the CO₂ system, and shall also be witnessed by the government representative.)

10. Fire Detection & Alarm System

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

11. HVAC

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

12. Compressed Air System

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

13. Winches and Hoists

- Demonstrate operation of the ~~ladder winch by raising and lowering the ladder overhead traveling shop crane, including 100% load test.~~
- Demonstrate operation of the spud ~~hoists winches.~~
- Demonstrate operation of the ~~swing winches capstans.~~
- Demonstrate operation of the ~~traveling spud carriage storage room monorail trolley hoist, including 100% load test.~~

- Demonstrate operation of the ~~Load test the~~ deck-jib crane ~~at overload conditions, including 100% load test.~~
- Demonstrate operation of the deck winches.

14. Hydraulic System

~~If applicable, d~~Demonstrate the operation of the hydraulically operated spud winches hoist cylinder and the traveling spud carriage.

15. Controls, Instrumentation and Alarms

All control, instrument, and alarm functions shall be demonstrated with the system or equipment for which they function. All remote control, indication, and alarm functions shall be divided up and included on the Test Data Sheet with the test or demonstration with which they are most logically associated. Similarly, all local control, instrumentation, and alarm functions shall be included on the Test Data Sheet demonstrated with the test or demonstration with which they are associated.

a. Controls

Automatic controls shall be demonstrated by exceeding the parameter set point(s), during the specified operations if possible; otherwise, the Contractor shall develop a specific test to extend an operating parameter beyond its set point(s). Also, a sensor set point may be manually activated. If these "natural" methods of testing are impractical due to excessive time or disassembly, then the control contacts may be bridged or opened to simulate a control function. Relief valves shall be considered a control device and tested to insure proper actuation at the specified pressure. Manual and remote controls shall be demonstrated during the specified operations if possible otherwise the Contractor shall develop a specific test for which the control function can be demonstrated.

b. Instruments

Demonstration of instruments and other non-alarm indicators shall consist of recording the readings once during the appropriate time of operation or as specified. The appropriate time of operation is the time at which the instrument is displaying a useful output. If an operation for which an instrument reading can be recorded is not specified, the Contractor shall develop one.

c. Alarms

Similar to control demonstrations, alarms shall be demonstrated by exceeding the parameter limit(s) during the specified operations if possible; otherwise, the Contractor shall develop a specific test to extend an operating parameter beyond its limit(s). Also, a sensor limit may be manually activated. If these "natural" methods of testing are impractical due to excessive time or disassembly, then the alarm contacts may be bridged or opened to simulate an alarm condition.

16. AC Electrical System

- Switchgear - Demonstrate the operation of all circuit breakers and all equipment in the main switchboard. Safely demonstrate all mechanical and electrical interlocks on the generator breakers, bus ties breakers, and shore power breakers.
- ~~Variable Speed Drives (if applicable) — Demonstrate operation of all variable speed drives, including monitoring, controls, and shutdowns.~~
- Switchboard - Demonstrate all features of the switchboard such as the voltmeters and selector switches, ammeters and selector switches, frequency meters and selector switches, power available indicator lights, space heaters, ground detection lights and test switches, and ground ammeter and test switch.
- Distribution Panels - Demonstrate the operation of all circuit breakers in the distribution panel boards.
- Convenience Receptacles - Demonstrate the operability of all receptacles. Check the receptacles for polarity and voltage drop. For GFCI types, demonstrate their ability to reset.
- Lighting - Demonstrate the operation of all new interior, exterior and floodlights. Demonstrate the operation of all new lighting switches.

17. DC Electrical System

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

18. Noise Survey

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

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

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

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

The Contractor detailing the test results shall prepare a report. The report shall include:

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

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

The Contractor shall prepare a report detailing the test results.

19. Deadweight Survey

A deadweight survey of the vessel(s) shall be conducted in accordance with applicable sections of Standard Guide For Conducting Stability Test ASTM F 1321-90 to determine the as-built lightship weight and the longitudinal and transverse centers of gravity.

20. Enclosure Tightness & Operation

The Contractor shall successfully demonstrate that all enclosures:

- Are securable in the open and closed position.
- Fit properly at jamb or knife-edge seal.
- Open and close with a reasonably amount of force.
- Are free of paint and grit on rubber seals.
- Are free of dirt and grit at seal jamb.
- Are fitted with eyebrows or watersheds where applicable.

Using a hose, demonstrate weather tightness of all windows and doors.

F. FINAL ACCEPTANCE DEMONSTRATIONS (LEVEL 4)

The Contractor shall perform Final Acceptance Demonstrations following delivery of the vessel to demonstrate to the customer's operating staff the proper operation and performance of all the vessel equipment and systems.

These demonstrations shall be conducted following successful completion of Level 3 tests, correction of all deficiencies as necessary and successful delivery of the vessel to the designated delivery point. Final Acceptance Demonstrations shall be performed in the presence of the COR.

The Contractor shall provide sufficient personnel and resources to operate all equipment and demonstrate its proper installation.

E06 FINAL INSPECTION

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

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

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

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

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

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

E07 PROVISIONAL ACCEPTANCE AND DELIVERY

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

- Phase 3 Tests and Trials.
- Correction of all "punch list" deficiencies

- Receipt of a “passing” potable water lab report
- Receipt of required contract deliverables

The Contractor shall deliver the vessel to ~~St. Paul, MO.~~

U.S. Army Engineer District, NASHVILLE

Old Hickory Lock and Dam, Cumberland River

Old Hickory, Tennessee

The vessel shall be delivered under tow by a vessel operated by contractor personnel. The vessel shall be subject to a complete inspection at the time of delivery.

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

E08 FINAL ACCEPTANCE

Final Acceptances will be made following successful completion of the ~~Extended Dredging Trials—Level 4 Final Demonstrations~~ (see Clause E05) being performed by the ~~Government Contractor~~. Following ~~Dredging Trials Final Demonstrations~~, the contractor’s crew shall be responsible for touching up any damaged paint and providing any necessary adjustments, alignments or calibrations still remaining. Final acceptance will be made at the ~~Dredging Trial Level 4 Final Demonstrations~~ site.

E09 COMMERCIAL WARRANTY OF SUPPLIES

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

E10 RESPONSIBILITY FOR SUPPLIES

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.

(End of clause FAR 52 246-16)

PART III
LIST OF DOCS, EXHIBITS AND ATTACHMENTS
SECTION J

J01 CONTRACT AND REFERENCE DRAWINGS

The following drawings shall form a part of this solicitation. Please note that Drawings will be provided to the successful bidder in electronic file [AutoCAD](#) form:

A. Contract Drawings

- Drawing No. 623-A205-01, OUTBOARD PROFILE
- Drawing No. 623-A215-01, GENERAL ARRANGEMENTS, 2-SHEETS
- Drawing No. 623-A240-01, WORK SHOP ARRANGEMENTS
- Drawing No. 623-A720-01, ONE LINE DIAGRAM, 3-SHEETS

B. Reference Drawings

- Drawing No. 577-D325-01, SEACHEST INSTALLATION & DETAILS
- Drawing No. 526-D660-01, REV. -, BALLAST SYSTEM, 2-SHEETS
- Drawing No. 451-D550-01, REV. E, SPUD DETAILS, 2-SHEETS

J02 ENG FORM 2454

The Contractor shall utilize the ENG Form 2454 for the Construction Plan required by Clause H06.

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following clarifications are made in response to offeror questions:

1. Question: “Does the Corp anticipate simultaneous use of a combination thereof of the three off-barge receptacles? If so, at what demand factor?”

Answer: The vessel operators will manage the electrical load supplied through the off-vessel receptacles to as to not overload the generator (s) capacity.

2. Question: “Will the on-line generator be permitted to simultaneously supply both the ship’s service switchboard buss and the spud winch switchboard buss, i.e., generator number 2 or 1 connected to both busses?”

Answer: The on-line generator shall be capable of supplying both the ship services switchboard and the spud winch switchboard simultaneously.