

TECHNICAL PROVISIONS

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SECTION 01100

GENERAL

PART 1 GENERAL

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 Conference

A Preconstruction Conference will be arranged by the Contracting Officer's Representative after award of contract and before commencement of work. The Contracting Officer's Representative will notify the Contractor of the time and date set for the meeting. At this conference, the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

1.1.2 Submittals

The Contractor shall bring to this conference the following items in completed form:

- (a) Minimum Basic Outline for Accident Prevention Program (including Diving Plan if required) (See ATTACHMENTS)
- (b) Emergency Response Procedures including employee certificates for current First Aid and CPR training
- (c) Letter appointing Contractor Quality Control System Manager
- (d) Quality Control Plan
- (e) Environmental Protection Plan
- (f) Hazard Analysis Plan
- (g) List of Subcontractors including written statement that no first tier subs are presently debarred or suspended from Government work

1.1.3 Quality Control System (QCS) Data File

The Contractor shall bring the "Export to RMS" file for import to the Corps of Engineers RMS (Resident Management System). This file shall be in accordance with the Section 01312, QUALITY CONTROL SYSTEM (QCS) and shall include current information on the following:

- (a) Prime Contractor Data
- (b) Subcontractor Data
- (c) Insurance Data
- (d) Equipment Data
- (e) Submittal Register
- (f) Correspondence
- (g) Features of Work
- (h) Activity Schedule
- (i) Pay Activity Data

1.1.4 Letter of Record

A Letter of Record will be written documenting all items discussed at the conference and a copy will be furnished by the Contracting Officer's Representative to all in attendance.

1.2 PROGRESS CHARTS

1.2.1 Periodic Progress Charts

In consonance with the Contract Clause, SCHEDULES FOR CONSTRUCTION CONTRACTS, the Contractor shall be guided by the following requirements and procedures as pertain to submission of an

initial and subsequent periodic construction progress charts. These charts as approved and updated shall provide the basis for determination of the amounts of partial payments.

1.2.2 Submittal of Progress Chart (ENG Form 2454)

The Contractor shall submit three copies of the initial Progress Chart after the receipt of the Notice to Proceed and prior to the commencement of work. Blank ENG Form 2454 (See ATTACHMENTS) will be furnished the Contractor as soon after award as practicable for his use in submitting his contract progress schedules for approval. Three copies of monthly updated progress schedules are to be furnished by the Contractor and submitted with all progress payments. All copies of the chart shall be full-size and legible.

1.2.3 Preparation of Progress Chart

The Contractor shall indicate on the progress chart the bid items contained in the contract, showing the amount of the item and its relative weighted percentage of the total contract. The Contractor may separate features of work under each item to show salient work elements such as procurement of materials, plant, and equipment, and supplemental work elements such as excavation, reinforcing steel, backfill, etc. These salient features shall total to the cost and weighted percentages shown for the major bid item. When quantity variations impact the weighted percentage of a separate item by five percent or more, the Contractor shall revise the contract progress charts to accurately reflect the impact of such variations.

1.2.4 Modifications

Modifications to the contract which are minor in nature shall be listed and scheduled separately in order of their issuance and as reported on the associated request for partial payment. Completion of work on minor modifications shall be noted as work progresses. When major modifications are issued in which one or more of the bid items are significantly changed monetarily or in time of completion, the progress schedule should be revised to incorporate such changes showing revised item completion dates and overall new completion date, as applicable.

1.3 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in one (1) copy unless otherwise specified. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

1.4 CONSOLIDATED REPORT

The Contractor shall submit a consolidated report within 30 days after completion of all work associated with this contract and shall include, as a minimum, the information listed on the form, CONSOLIDATED REPORT provided in the ATTACHMENTS. Final payment to the Contractor will not be made until the Contracting Officer has received this report.

1.5 PHYSICAL CONDITIONS AND DATA

1.5.1 General

Data and information furnished or referred to below are for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

1.5.2 Physical Conditions

The physical conditions indicated on the drawings and in the specifications are the result of site investigations by the U.S. Army Corps of Engineers, Charleston District. It highly recommended that bidders conduct their own investigations and decide for themselves the character of the materials and difficulties of performing the work.

1.5.3 Weather Conditions

The areas in which work is to be done under these specifications are workable during the entire year; however, tropical storms may require that operations be suspended temporarily. The season for tropical storms is during the period June - October; during such disturbances precaution should be taken to secure all plant and equipment.

1.5.4 Transportation Facilities

The Port of Charleston is served by the CSX Railroad Company. Marine repair facilities, docking and fueling facilities, provisions, and marine supplies area also available.

1.5.5 Tides

1.5.5.1 Charleston Harbor and AIWW Charleston to Port Royal

Mean tide range and spring tide range for various reference tidal stations are as follows:

LOCATION	MEAN RANGE (FT)	SPRING RANGE (FT)
Charleston (Custom House)	5.3	6.1
<u>AIWW Charleston to Port Royal:</u>		
Wappoo Creek, Highway Bridge	5.2	6.0
Stono River, Limehouse Bridge	5.6	6.5
Dawho River, Dawho Bridge	6.2	7.2
South Edisto River, Fenwick Isl.	6.2	7.2
Ashepoo River, Ashepoo-Coosaw Cutoff	6.2	7.2
Coosaw River, Summerhouse Point, Bull River	6.6	7.6

1.5.5.2 Additional Tidal Information

Tidal benchmark information may be obtained from U.S. Department Of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service at the NOS website, www.co-ops.nos.noaa.gov.

1.5.6 Channel Traffic

Traffic in the Atlantic Intracoastal Waterway consists generally of tugboats, commercial barges, fishing boats, and pleasure craft. It may be necessary to suspend dredging operations temporarily and swing the dredge to the side of the channel for the passage of the larger of these vessels.

1.5.7 Obstruction of Channel

The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the Rivers and Harbors Act approved 8 August 1917. The Contractor will be required to conduct the work in such a manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make it difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon completion of the work the Contractor shall promptly

remove his plant, including ranges, buoys, piles and other markers placed by him under the contract in navigation waters or on the shore.

1.5.8 Condition of Site

It is highly recommended that prospective bidders examine the areas of work, prior to submission of bids, in order to determine for themselves the accessibility for transportation of personnel, supplies and equipment and also to familiarize themselves as to the nature and general arrangement of work areas. The Contractor shall obtain any and all rights-of-entry across private lands that he might use.

1.5.9 Records

Maps indicating previously dredged depths and recent dredging records are available for review at the Corps of Engineers, Charleston District, Navigation Section, 69A Hagood Avenue, Charleston, South Carolina. Bidders can schedule appointments to view these records with Mr. Doug Holmes, phone (843) 329-8135. Copies of historical files other than those which Mr. Holmes has assembled may be requested under the Freedom of Information Act, attention Office of Counsel. These records will be released to the Contractor within ten working days after the receipt of a proper Freedom of Information Act request.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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GENERAL REQUIREMENTS

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

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SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

1.1 GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to the contract clauses SCHEDULES FOR CONSTRUCTION CONTRACTS, PAYMENTS, and PROJECT SCHEDULE; and specifications Section SUBMITTAL PROCEDURES and Section CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS:

1.3.1 **Hardware**

- (a) IBM-compatible PC with 500 MHz Pentium or higher processor
- (b) 128+ MB RAM for workstation / 256+ MB RAM for server
- (c) 1 GB hard drive disk space for sole use by the QCS system
- (d) Compact disk (CD) Reader, 8x speed or higher
- (e) SVGA or higher resolution monitor (1024 x 768, 256 colors)
- (f) Mouse or other pointing device
- (g) Windows compatible printer (Laser printer must have 4+ MB of RAM)
- (h) Connection to the Internet, minimum 56 BPS

1.3.2 **Software**

- (a) MS Windows 98, ME, NT, or 2000
- (b) Word Processing software compatible with MS Word 97 or newer
- (c) Latest version of: Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher
- (d) Electronic mail (E-mail), MAPI compatible
- (e) Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control (CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA CD-ROM). The QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed

paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01451, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by Section CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management

The Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with the contract clause Schedules for Construction Contracts. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF). The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance with the following:

1.8.1 File Medium

The Contractor shall submit required data on an approved media format, CD-ROMs may be used. Approved media format shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.2 Media format Labels

The Contractor shall affix a permanent exterior label to each approved media format submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The Government will provide the file names to be used by the Contractor with the QCS software.

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected non-compliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

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SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL CLASSIFICATION

Submittals are classified as follows.

1.1.1 Government Approved

Governmental approval is required for methods, schedules, extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, they are considered to be "shop drawings".

1.1.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.2 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error, which may exist, as the Contractor under the Contractor's Quality Control requirements of this contract is responsible for the dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no re-submittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause, CHANGES shall be given promptly to the Contracting Officer.

1.4 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specification. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same

used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled (30 days minimum) and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturers Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG Form 4288)

The ATTACHMENTS include one set of ENG Forms 4288, listing each item of equipment and material for which submittals are required by the specifications; this list may not be all-inclusive and additional submittals may be required. The Contractor will also be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. Columns "d" thru "r" has been completed by the Government. The Contractor shall complete columns "a", and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 14 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. This register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delays, damages, or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG Form 4025)

The ATTACHMENTS include a sample of Transmittal Form, ENG Form 4025, which shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

The Contractor shall submit to the Resident Engineer three (3) copies of all shop drawings and information submittals, unless specified otherwise in the specifications. These data shall be submitted sufficiently in advance of the particular work for which they are a part, to allow time for review prior to incorporation into the work, but shall be submitted not later than 90 calendar days after receipt of Notice to Proceed, unless otherwise specified or notified by the Contracting Officer. The drawings, plans, and data shall be complete and shall contain all required detailed information. The Contractor shall identify each separate

sheet of drawings and equipment data and each item of descriptive literature with the contract number and their respective transmittal number. Included on the drawings and data sheets shall be an identification of materials (by specification number or otherwise) to be used for the items shown thereon. Testing of equipment shall not be performed until all required submittals are approved.

3.5.2 Deviations

For submittals, which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.5.3 Reproduction Requirements

The submittal of contract drawings or reproduced portions of contract drawings as shop drawings will not be acceptable. Submittals on thermofax or other instant copy reproduction methods that are subject to fading will not be acceptable.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register".

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Two (2) copies of the submittal will be retained by the Contracting Officer and one (1) copy will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material is incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the Submittal data to certify that the submittal meets contract requirements shall be similar to the example on the following page.

CONTRACTOR (Firm Name)
____ Approved
____ Approved with corrections as noted on submittal data and/or attached sheet(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

-- END OF SECTION --

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PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01351
SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 PAYMENT

Separate payment will not be made for providing and maintaining an effective Safety Program, and all associated costs therewith shall be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

1.2 REGULATORY REQUIREMENTS

In accordance with the Contract Clause ACCIDENT PREVENTION, the Contractor shall ensure that all pertinent provisions of the US Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, dated 3 November 2003 (copies available upon request); the latest Occupational Safety and Health Administration (OSHA) standards; applicable Coast Guard safety regulations; and requirements listed in these specifications are complied with by all personnel within the area of operations. Work performed under this contract shall comply with applicable Federal, state, and local safety and occupational health laws and regulations.

1.2.1 Revisions to Safety Manual, EM 385-1-1

The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the effective date of this solicitation. EM 385-1-1 and its changes are available at <http://www.hq.usace.army.mil> (at the HQ homepage, select Safety and Occupational Health).

1.3 ACCIDENT PREVENTION PLAN

After award and no later than the pre-construction conference, the Contractor shall submit, in writing, his proposal for Accident Prevention, using the format "Minimum Basic Outline For Accident Prevention Program" found in the ATTACHMENTS.

1.3.1 Participant in Dredging Safety Management Program

If the Contractor is a currently accepted participant in the Dredging Contractors of America (DCA)/U.S. Army Corps of Engineers (USACE) Dredging Safety Management Program, as determined by the DCA/USACE Joint Committee, and holds a current valid certificate of compliance for both the Contractor Program and the dredge or dredges to be used to perform the work required under this contract, the Contractor may, in lieu of the submission of an Accident Prevention Plan,

- (1) Make available for review, upon request, the Contractor's current Safety Management System (SMS) documentation;
- (2) Submit to the Contracting Officer the current valid company certificate of compliance for its SMS;
- (3) Submit the current dredge certificate of compliance based on third party audit, and
- (4) Submit for review and acceptance, site-specific addenda to the SMS as specified in this solicitation.

1.4 SAFETY PROGRAM CONFERENCE

Prior to commencement of work, the Contractor shall meet in conference with representatives of the Contracting Officer to discuss and develop mutual understanding relative to administration of overall safety program and Accident Prevention Plan.

1.5 ACTIVITY HAZARD ANALYSIS

Prior to the commencement of each major phase of construction, the Contractor will have available for review a detailed written analysis of the activity hazards for the subject phase of construction under this contract. An example is mobilization, piping, hazards to navigation, lockout/tagout, confined space entry, diving, personal protective equipment, etc. This analysis will be prepared using the form "Activity Hazard Analysis" shown in the ATTACHMENTS. The final form shall reflect the mutual understanding between the Contractor and Government representative of the potential hazards involved and the controls to be employed. The Activity Hazard Analysis shall be reviewed with all supervisors and employees prior to performing the work and this review recorded in the QC report. This analysis shall address the principal steps of each work activity, an analysis of each step for its potential hazards, and a detailed list of each specific control for the potential hazard, and the identification and use of Personal Protective Equipment (PPE). The analysis shall be submitted attached to the Contractor's "Construction Quality Control Report".

1.6 SAFETY MEETINGS

Regularly scheduled safety meetings shall be held once a month for supervisors and at least one safety meeting shall be conducted weekly by supervisors for all employees. An outline report, "Report of Weekly Safety Meeting" (SAC Form 253), is shown in ATTACHMENTS, and shall be completed and submitted to the designated authority, weekly.

1.7 SAFETY PROGRAM STAFF REQUIREMENTS

Safety is the responsibility of each and every Contractor employee associated with this contract. The Contractor Quality Control System Manager will be responsible for insuring that the Safety Program is being administered in strict compliance with the contract requirements.

1.8 SAFETY PROGRAM FOR FLOATING PLANT

1.8.1 Certification of Floating Plant

1.8.1.1 Seagoing Barge Act--Special Standard of Responsibility (JUN 1979 OCE)

The Seagoing Barge Act (46 USC 2101 et seq.) applies to this project. In the event the low bidder contemplates using plant that requires U.S. Coast Guard certification to comply with this act, the low bidder shall, within 10 calendar days after bid opening, submit a copy of said certificate to the Contracting Officer. Failure to produce the certificate within the required time shall be cause for determining the bidder non-responsive.

1.8.1.2 Certification by National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS)

All dredges and quarter boats not subject of USCG inspection and certification or not having a current American Bureau of Shipping (ABS) classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or Society of Accredited Marine Surveyors (SAMS) and having at least five years experience in commercial marine plant and equipment. All other plant shall be inspected annually by a qualified person. The inspection shall be documented, and a copy of the most recent inspection report shall be posted in a public area on board the vessel and a copy shall be furnished at the pre-construction conference. The inspection shall be appropriate for the intended use of the plant and shall, as a minimum, evaluate structural integrity, seaworthiness, and compliance with NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft.

1.8.2 Personal Flotation Device (PFD)

Type III, Type V, or better U.S. Coast Guard approved international orange floatation device (PFD) shall be provided by the employer and properly worn by all persons in a work or non-work status while exposed to a drowning hazard and in the following circumstances:

- (a) At all times on dredges, boosters, and other attendant floating plant except in the following areas: Engine rooms, pump rooms, sleeping quarters, galley, rest rooms and showers. Also, when coming on duty or leaving the job PFD's will be properly donned prior to boarding any floating plant that will transport the employee to or from the dredge, other floating plant or his duty station.
- (b) Other areas may be excluded from this requirements, but only after the Contractor has received permission from the Contracting Officer or the Resident Engineer.
- (c) Instructions stating these requirements will be posted on board the vessel, along with a clear definition of what actions will be taken when employees violate these requirements.
- (d) These requirements will be communicated to every employee on each shift in the Preparatory Meeting and Weekly Tool Box Safety Meeting and a copy of the notes from these meetings will be signed and dated by all in attendance and a copy furnished to the Government.
- (e) Before and after each use, the PFD shall be inspected for defects or unauthorized alterations, which would alter its strength or buoyancy. Defective devices with less than 13 pounds buoyancy shall be immediately removed from service.
- (f) All PFD's shall be equipped with retro-reflective tape as specified in 29 CFR 25.25-15.
- (g) These requirements are not intended to negate any other COE, Coast Guard or OSHA PFD requirements that apply to Contractor activities while under contract in the Charleston District. Where more stringent requirements are set forth, they will be applied by the Contractor unless a written waiver has been issued.
- (h) Personal Flotation Devices will be marked with a symbol or sign that during daylight hours and hours of darkness clearly identifies the wearer as a non-swimmer. All employees who cannot swim will be instructed to take extra precautions when working over or near water, and all supervisors and employees who can swim should be advised to pay special attention to non-swimmers when a drowning hazard is present.
- (i) The employer is responsible for insuring that this specification is implemented and all levels of management should insure through a series of normal inspections that the requirement is being adhered to.

1.8.3 Safety Drills

On all floating plant which has a regular crew or on which people are quartered, the following drills shall be held at least monthly. Where persons are quartered overnight, every fourth drill shall be at night.

- (a) Boat or abandon ship drills
- (b) Fire Drills
- (c) Person overboard or rescue drills
- (d) The first set of drills shall be conducted within 24 hours of the vessel's occupancy or commencement of work.
- (e) Drills shall include, where appropriate, how to handle a pump shell or pipe rupture or failure within the hull (proper shutdown procedures, system containment, etc.), and how to handle leaks or failures of the hull or portions of it (what compartments to secure, how to handle power losses, pulling spuds to move to shallow water, etc.)
- (f) A record of all drills and emergency system checks, including any deficiencies noted in equipment and corrective action taken, shall be made in the station log.

1.8.4 Smoke Alarms

Smoke alarms are required for all floating plant barracks utilizing the same electrical system as that of the electrical alarms. Although battery operated smoke alarms are allowed, the Contractor is required to have a written plan or schedule indicating the date he intends on performing an electrical upgrade to accommodate for hard wired smoke alarms.

1.8.5 Fire Extinguisher - Mobile Construction Equipment

In compliance with Item 6 required SAD Form 1666-R, it is specifically required to provide a fire extinguisher with a minimum extinguisher rating of 20-B:C, which is equivalent to a 10-15 pound dry chemical extinguisher, compatible to the hazard involved--combustible, flammable liquids and materials used in areas remote to other fire extinguisher equipment.

1.8.6 Electrical Installations

All electrical installations shall comply with the National Electric Safety Code (NESC), National Electric Code (NEC), or United States Coast Guard Regulation.

1.8.7 Safe Clearance Procedures

Safe clearance procedures shall be included and discussed in detail in the Accident Prevention Plan or Activity Hazard Analysis. This discussion will include a description of personnel responsibilities and a tracking system for the clearance procedure as well as a listing of signs, tags, lockouts, or other devices to be used. A safe clearance procedure shall be required on all systems and equipment if unauthorized removal or return to service could result in injury, damage, loss of content, loss of protection, or loss of operating capacity.

1.8.8 Work in Confined Spaces

Work in confined spaces shall be in accordance with Section 27 of the US Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1, dated September 1996, National Safety Council Data Sheet 1-704-85 and DHEN (N10AH) publication No. 80-106.

1.8.9 Hazard Communication Program and Material Safety Data Sheets (MSDS)

The Contractor agrees to maintain on board the dredge a copy of his Hazard Communication Program Document and the Material Safety Data Sheets (MSDS). The MSDS for all hazardous chemicals/materials will be made readily available to employees who are routinely exposed to hazardous material.

1.8.10 Hazardous Weather Plan

Where floating plant may be endangered by hurricanes, storms or floods, plans shall be made for removing or securing plant and evacuation of personnel in emergencies. This plan shall be in accordance with Corps of Engineers Safety Manual (EM 385-1-1) and shall be submitted with the Accident Prevention Plan for review and approval.

1.9 SAFETY INSPECTION

1.9.1 Contractor Safety Inspection

Prior to the commencement of work, the Contractor will conduct an independent safety inspection of his entire operation. This inspection will be conducted to insure and demonstrate that:

- (a) He is providing his employees a place of employment, which is free from recognized hazards.
- (b) His employees will not be required to work in surrounding or under conditions, which are unsafe, or dangerous to their life or health.
- (c) He is committed to accident prevention by initiating and maintaining a safety and health program which will comply with US Army Corps of Engineers Safety and Health Requirements Manual, U.S. Coast Guard requirements, OSHA Standards, and any other safety requirements the Contracting Officer may deem necessary through the life of this contract.
- (d) He has identified and abated all known hazards prior to Corps of Engineers inspection.

1.10 EMERGENCY RESPONSE PROCEDURES

1.10.1 Emergency Response Procedures

The Contractor will be responsible for developing and testing his written Emergency Response Procedures to insure total rapid response for rescue and evacuation of injured employees.

1.10.2 Communications

Radio or cellular phone communications shall be established, readily available to the employees and tested to insure rapid response by properly equipped emergency vehicle, helicopter or mobile first aid unit.

1.10.3 Telephone Numbers, Call Signs and Instructions

Emergency telephone number or radio call signs and reporting instructions for ambulance, helicopter, physician, hospital, fire department, police, etc. shall be posted in all vehicles and equipment operating at the jobsite.

1.10.4 First Aid and CPR Requirements

At least two employees on each shift and each separate work area shall be certified to administer First Aid and CPR.

1.10.5 Submittal

The Contractor's written Emergency Response Procedures including employee current First Aid and CPR Certification shall be submitted attached to the Accident Prevention Plan. Work will not proceed until the plan has been reviewed and accepted by the Government and Contractor's emergency procedures are tested to insure rapid response in the field.

1.10.6 Machinery and Mechanized Equipment Checklist

In accordance with 18.A.01, EM 385-1-1, all machinery and mechanized equipment, will be checked out as it arrives on the job, using the format shown on SAD Form 1666-R, "Safety Inspection Checklist for Mobile Construction Equipment" found in the ATTACHMENTS.

1.10.7 Welding Equipment

All oxyacetylene or other fuel gas-oxygen combination used in cutting or welding equipment shall have reverse-flow check valves between torch and regulator.

1.10.8 Anchor Points

All anchor points shall be clearly identified and shall be inspected prior to applying a load or putting cables under tension. Anchor points not structurally sound shall be cut out, removed, and/or welded over to preclude usage. Visual checks and "all clear" warnings shall be made prior to tensioning cables.

1.10.9 Exceptions

Some of the technical requirements of the COE Safety and Occupational Health Requirements Manual, EM 385-1-1, may not always be applicable to certain marine operations due to conflicting circumstances, practices, and laws or regulations of the locality or the unavailability of equipment. In such instances, means other than the ones specified in the COE Safety Manual may be used to achieve the required protection. When this occurs, a detailed Activity Hazard Analysis (AHA) must be prepared by the Contractor to document that the required protection will be achieved by the alternate means. The AHA must be submitted to the government for approval prior to implementation.

1.11 NOTICE TO MARINERS

Should the Contractor, during operations, encounter any objects in the channel prism, which could be a hazard to navigation, he will immediately notify the Contracting Officer and the U.S. Coast Guard as to the location of said object/hazard and any other pertinent information necessary for the Contracting Officer to issue a Notice to Mariners.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section 01351 --

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SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

The Contractor shall furnish all labor, materials and equipment and perform all work required to prevent environmental pollution and damage as the result of construction operations under this contract and for those measures set forth in other Technical Requirements of these specifications. The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. For the purpose of this specification, environmental pollution and damage are defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of plant or animal communities; or degrade the utility of the environment of aesthetic, cultural, or historical perspective. Environmental protection is the prevention/control of pollution and habitat disruption that may occur during construction. The control of environmental pollution and damage requires consideration of air, water, and land, biological and cultural resources; and includes management of visual aesthetics, noise, solid, gaseous, and liquid waste, radiant energy and radioactive materials, and other pollutants. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable Federal, state and local environmental laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.2 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

1.3 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification
49 CFR 171 - 178	Hazardous Materials Regulations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) U.S. Army Corps on Engineers Safety and Health Requirements Manual
ER 1110-1-5	(1984) Plant Pest Quarantined Areas and Foreign Soil Samples, ENG Form 1743, ENG Form 1743A
WETLAND MANUAL	Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

1.4 DEFINITIONS

1.4.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.4.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.4.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.4.4 Pesticide

Pesticide is defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant or desiccant.

1.4.5 Pests

The term "pests" means arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds and other organisms (except for human or animal disease-causing organisms) that adversely affect readiness, military operations, or the well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

1.4.6 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.4.7 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

1.5 SUBCONTRACTORS

The Contractor shall ensure that all subcontractors comply with the requirements of this section.

1.6 PAYMENT

The Contractor shall be responsible for payment of fees associated with environmental permits, applications, and/or notices obtained by the Contractor. The Contractor shall also be responsible for payment of all fines and fees for violation of, or non-compliance with, Federal, state, regional, and local laws and regulations. No separate payment will be made for work covered under this section. All costs for complying with the requirements of this section shall be included in the contract prices for other items of work.

1.7 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section **01330** SUBMITTAL PROCEDURES:

Environmental Protection Plan; GA

Submit a draft plan detailing Contractor's procedures for protecting the environment at the preconstruction conference.

Report; GA

SD-09 Reports

Manatee Sighting Form;

Completed Manatee Sighting Form documenting each manatee sighted, as specified in Paragraph Sightings and Reporting.

1.8 ENVIRONMENTAL PROTECTION REQUIREMENTS

1.8.1 Environmental Protection

It is the responsibility of the Contractor to investigate and comply with all Federal, state, county, and municipal laws concerning pollution of air and water, and for the protection of public and employee health, and for damages to shellfish, fish, and wildlife. The Contractor shall provide sufficient safeguards to prevent pollution to the waterways by spillage or waste of paints, pesticides, fuels, oils, bitumen, calcium chloride, or other similar materials harmful to public health, water quality, fish, shellfish, or wildlife. The Contractor shall undertake immediate corrective action in response to any violation of applicable environmental protection laws and regulations, or the environmental protection provisions of this section. Federal immunity, supremacy, or preemption may preclude the application of some state or local laws and regulations.

1.8.2 Environmental Litigation

If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the Contract Clause SUSPENSION OF WORK.

The term "environmental litigation", as used herein, means a criminal or civil proceeding alleging a violation or potential violation of an environmental law, regulation or ordinance related to the work to be performed under this contract.

1.8.3 Work in Quarantined Areas (1968 May OCE)

The work called for by this contract involves activities in a county quarantined by the Department of Agriculture to prevent the spread of certain plant pests that may be present in the soil. The Contractor agrees that all construction equipment and tools to be moved from such counties shall be thoroughly cleaned of all soil residues at the construction site with water under pressure and that hand tools shall be thoroughly cleaned by brushing or other means to remove all soil. In addition, if this contract involves the identification, shipping, storage, testing, or disposal of soils from such a quarantined area, the Contractor agrees to comply with the provisions of ER 1110-1-5 and attachments, a copy of which will be made available by the Contracting Officer upon request. The Contractor agrees to assure compliance with this obligation by all subcontractors.

1.9 ENVIRONMENTAL PROTECTION PLAN

At the preconstruction conference, the Contractor shall submit a written Environmental Protection Plan for review and approval by the Contracting Officer. Implementation of the Environmental Protection Plan will be discussed at the preconstruction conference along with reporting requirements, possible subsequent additions and revisions, and methods for administration of the plan. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction tasks. Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

1.9.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, state, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.9.2 Contents

The environmental protection plan shall include, but shall not be limited to, the following:

a. Name of person within the Contractor's organization who is responsible for ensuring adherence to the Environmental Protection Plan.

- b. Name and qualifications of person responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c. Name and qualifications of person responsible for training the Contractor's environmental protection personnel.
- d. Description of the Contractor's environmental protection personnel training program.
- e. A list of the primary Federal, state, and local laws and regulations concerning environmental protection that are applicable to the Contractor's proposed operations and the principal requirements imposed by those laws and regulations which apply to the work under this contract.
- f. The Spill Control plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under state or local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:
 - 1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and U.S. Coast Guard in addition to the legally required Federal, state, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.
 - 2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.
 - 3. Training requirements for Contractor's personnel and methods of accomplishing the training.
 - 4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazards identified.
 - 5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
 - 6. The methods and procedures to be used for expeditious contaminant cleanup.
- g. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance of the solid waste shall be attached to this plan during construction. Reports shall be submitted on the first working day of each month after non-hazardous solid waste has been disposed. The report shall indicate the total amount of waste generated.
- h. A recycling and solid waste minimization plan with a list of measures to reduce consumption of energy and natural resources. The plan shall detail the Contractor's actions to comply with and to participate in Federal, state, regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source.
- i. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, etc., do not become air borne and do not travel offsite.

j. A contaminant prevention plan that identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, state, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. The plan shall be updated if new hazardous materials are brought on site or removed from the site.

k. A historical, archaeological, cultural resources, and biological resources plan that identifies procedures to be followed if historical archaeological, cultural resources, and biological resources not previously known to be onsite or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

l. A pesticide treatment plan shall be included and updated, as information becomes available. The plan shall include the sequence of treatment, dates, times, locations, pesticide trade name, EPA registration numbers, authorized uses, chemical composition, formulation, original and applied concentration, application rates of active ingredient (i.e. pounds of active ingredient applied), equipment used for application and calibration of equipment. The Contractor is responsible for Federal, state, regional, and local pest management record keeping and reporting requirements as well as any additional specific requirements.

m. A biological resources protection plan that defines procedures for identifying and protecting endangered or threatened species, or other biological resources, known to be on the projects site, and/or identifies procedures to be followed if such resources not previously known to be onsite or in the area are discovered during dredging activities. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

1.9.3 Appendix

Copies of all certifications, reports, and termination documents shall be attached, as an appendix, to the Environmental Protection Plan.

1.10 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL

Contractor personnel shall be trained in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment, and shall be thoroughly knowledgeable of Federal, state and local laws and regulations as listed in the Environmental Protection Plan submitted by the Contractor. Quality control personnel will be identified in the Quality Control Plan submitted in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL.

1.11 NONCOMPLIANCE

The Contracting Officer will notify the Contractor, in writing, of any observed noncompliance with the aforementioned Federal, state, or local laws and regulations, and other elements of the Contractor's environmental protection plan. This shall not relieve the contractor of the responsibility to comply with the aforementioned Federal, state, or local laws and regulations, and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until

satisfactory corrective action has been taken. No extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.

1.12 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.13 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

1.14 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 ENVIRONMENTAL COMMITMENTS

The Contractor shall comply with the requirements of this section. The Contractor shall be responsible for obtaining and complying with any additional environmental permits required by Federal, state, regional, and local environmental laws and regulations. The Contractor shall establish and maintain an effective environmental protection program to insure minimal environmental pollution and damage as the result of construction operations. The environmental protection program shall consist of plans, procedures, and organization necessary to assure compliance with all aspects of environmental protection.

3.2 WATER RESOURCES

The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied unless otherwise specified. All water areas affected by construction activities shall be monitored by the Contractor. The Contractor shall not enter, disturb, destroy, or allow discharge of contaminants into any wetlands, except as authorized herein.

3.3 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and state air emission and performance laws and standards. Dust particles, aerosols, and gaseous

by-products from construction activities shall be controlled at all times, including weekends, holidays and hours when work is not in progress. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs.

3.4 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.4.1 Solid Wastes

Solid wastes generated by the Contractor (excluding dredged material) shall be placed in containers that are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste to shore and dispose of it in compliance with Federal, state, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate.

3.4.2 Chemicals and Chemical Wastes

Chemicals shall be dispensed ensuring no spillage to the ground or water. Periodic inspections of dispensing areas to identify leakage and initiate corrective action shall be performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in corrosion resistant, compatible containers. Collection drums shall be monitored and removed to a staging or storage area when contents are within 6 inches of the top. Wastes shall be classified, managed, stored, and disposed of in accordance with Federal, state, and local laws and regulations.

3.4.3 Contractor Generated Hazardous Wastes/Excess Hazardous Materials

Hazardous wastes are defined in 40 CFR 261, or are as defined by applicable State and local regulations. Hazardous materials are defined in 49 CFR 171-178. The Contractor shall, at a minimum, manage and store hazardous waste in compliance with 40 CFR 262. The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing. The Contractor shall segregate hazardous waste from other materials and wastes, shall protect it from the weather by placing it in a safe covered location, and shall take precautionary measures against accidental spillage. The Contractor shall be responsible for storage, describing, packaging, labeling, and marking of hazardous waste and hazardous material in accordance with 49 CFR 171 - 178, state, and local laws and regulations. The Contractor shall transport Contractor generated hazardous waste in accordance with the Environmental Protection Agency and the Department of Transportation laws and regulations. The Contractor shall dispose of hazardous waste in compliance with Federal, state and local laws and regulations. Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility. Disposal of Contractor generated hazardous waste and excess hazardous materials shall be the responsibility of the Contractor.

3.4.4 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel shall be in accordance with all Federal, state, and local laws and regulations.

3.5 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs. The Contractor is further encouraged to minimize solid waste generation throughout the duration of the project.

3.6 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

During construction, if any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; bone, or other deposits; constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.7 BIOLOGICAL RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection will be listed in the Contractor's Environmental Protection Plan prior to the beginning of construction operations. The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, state, regional, and local laws and regulations. Compliance with the Endangered Species Act and Marine Mammals Protection Act shall be in accordance with Paragraph COMPLIANCE WITH THE ENDANGERED SPECIES ACT AND THE MARINE MAMMALS PROTECTION ACT, below.

3.8 COMPLIANCE WITH THE ENDANGERED SPECIES ACT AND THE MARINE MAMMALS PROTECTION ACT

Species listed by the Federal government as threatened and endangered receive a high level of protection under the Endangered Species Act of 1973 (PL 93-205), as amended. Threatened or endangered species that may be encountered in the project area during this project include manatees. In addition, all marine mammals, including manatees, porpoises, and dolphins, are protected under the Marine Mammal Protection Act of 1972 (PL 92-522), as amended. Therefore, the Contractor shall take such measures as may be required to assure that any activities conducted as part of this contract do not kill, injure, capture, pursue, harass, or otherwise harm any of these species. Specific types of equipment and operations pose different types of hazards, so specific protective measures will vary. Incidents involving the death or injury of any protected species or the recovery of any body parts of these species, have specific requirements for agency notification. If a protected species is found dead, injured, or sick in the project area by the Contractor, it shall be left undisturbed and the Contracting Officer shall be notified immediately. The Contractor shall prepare and furnish to the Contracting Officer written records detailing any such incident involving protected species within 24 hours of its occurrence. Failure of the Contractor to comply with these specifications is a violation of the Endangered Species Act and could result in prosecution of the Contractor under the Endangered Species Act or the Marine Mammals Protection Act.

3.8.1 Manatees

3.8.1.1 Protection of Manatees

Manatees are protected under the Marine Mammal Protection Act of 1972 and the Endangered species Act of 1973. All personnel associated with this project shall be instructed on the potential presence of manatees and the need to avoid collisions with manatees. Personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing manatees. The Contractor may be held responsible for any manatee harmed, harassed, or killed because of construction activities. Failure by the Contractor to follow the requirements of this specification is a violation of the Endangered Species Act and could result in prosecution of the Contractor under the Endangered Species Act or the Marine Mammals Protection Act.

3.8.1.2 Time Manatee Conditions Apply

The standard manatee conditions shall apply during the time period from 1 June to 30 September of each year.

3.8.1.3 Avoidance of Manatees

It is the responsibility of the Contractor to take necessary precautions to avoid any contact with Florida manatees. If manatees are sighted within 100 yards of the dredging area including the open water disposal area, all appropriate precautions shall be implemented to ensure protection of the manatee. The Contractor shall stop, alter course, or maneuver as necessary to avoid operating moving equipment any closer than 50 feet of the manatee. Operation of equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment.

3.8.1.4 Vessel Speed

All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than four feet clearance from the bottom. Vessels will follow routes of deep water whenever possible.

3.8.1.5 Sightings and Reporting

All manatee sightings in the project area shall be documented on a Manatee Sighting Form (Attachment M) and reported to the Government within 72 hours. In case of physical contact with a manatee, the Contractor shall immediately notify by telephone the Contracting Officer's Representative and the South Carolina Department of Natural Resources contacts listed below:

Tom Murphy	(W) 843-844-2473	(H) 843-846-6929
Sally Murphy	(W) 843-953-9014	(H) 843-846-6929

3.11 Environmental Report

The Contractor shall maintain a record detailing all sightings, collisions, or injuries to all endangered or threatened species that occur during the contract period. Following project completion, a written report covering all incidents and sightings shall be submitted to each of the agencies listed below within 15 working days after dredging has been completed on the project.

- (1) U.S. Army Corps of Engineers, Charleston District
Low Country Resident Office
ATTN: Resident Engineer
431 Meeting Street
Charleston, South Carolina 29403-5525
Phone: (843)329-2339

- (2) S.C. Wildlife and Marine Resources Department
Heritage Trust Section
P.O. Box 12559
Charleston, South Carolina 29422-2559

- (3) U.S. Fish and Wildlife Service
176 Croghan Spur Road
Charleston, South Carolina 39407-7558
ATTN: Ms. Paula Sisson

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SECTION 01451
CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled INSPECTION OF CONSTRUCTION. The quality control system shall consist of plans, procedures, and organization necessary to assure compliance with all of the requirements of the contract drawings and specifications. The system shall cover all construction operations and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production. The Contractor shall use the Quality Control System (QCS) module to record, maintain, and submit information in accordance with Section 01312, QUALITY CONTROL SYSTEM (QCS).

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, after award but not later than the Preconstruction Conference, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause, INSPECTION OF CONSTRUCTION. The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 10 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC Plan shall provide for sufficient inspection of all items of work, including that of his subcontractors, to ensure conformance to applicable specifications and drawings with respect to the materials, workmanship, construction finish, functional performance, and identification. The CQC Plan shall specifically include the surveillance required in Section 02325, DREDGING, of the contract specifications. This document shall include, as a minimum:

A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the Project Superintendent. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

- (a) A copy of the letter to the CQC System Manager signed by an authorized official of the firm, which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work, which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters will also be furnished to the Government.
- (b) Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, to ensure conformance to applicable specifications and drawings with respect to the materials, workmanship, construction finish, functional performance, and identification. These procedures shall be in accordance with Section 01330, SUBMITTAL PROCEDURES.
- (c) Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer).
- (d) Procedures for tracking preparatory, initial, and follow-up control phases and control, and verification, including documentation.
- (e) Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- (f) Reporting procedures, including proposed reporting formats.
- (g) A list of the definable features of work. A definable feature of work is a task, which is separate and distinct from other tasks and has separate control requirements and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.
- (h) This plan shall include name of employee responsible for overall supervision of accident prevention activities, applicable safety requirements in work methods, and method for inspecting the work to insure that safety measures and instructions are actually applied.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven (7) calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction operations, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, inspections, administration of the system, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures, which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

The requirements for the CQC organization are a CQC Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization, which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify an individual within his organization at the worksite who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. This CQC System Manager shall insure that qualified supplemental personnel are on the site at all times during construction. The CQC System Manager will be employed by the Contractor. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the System Manager's absence. Period of absence may not exceed one week at any one time, and not more than 30 workdays during a calendar year. The requirements for the alternate will be the same as for the designated CQC Manager.

3.4.2.1 Experience and Responsibility

The CQC System Manager shall be an experienced construction person with a minimum of 2 years management experience in related work. The CQC System Manager shall be responsible for CQC and as part of that responsibility shall insure that the Safety Program is in strict compliance with the contract requirements. The CQC System Manager shall be assigned no other duties.

3.4.2.2 Work Schedule

The CQC System Manager shall work a minimum of 40 hours per week on a rotating shift. Over a two week period of time, the CQC System Manager shall be present at least twice for each of the three eight hour shifts being worked. Over a two week period of time the CQC System Manager shall be present at least once for each of the weekend days. The CQC System Manager shall not discuss with the Contractor's staff anticipated hours to be worked. The CQC shall be required to submit a general anticipated work schedule to the Contracting Officer's Representative for approval on a monthly basis.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager. Each person will be responsible for assuring the construction complies with the contract requirements for their area of specialization. These individuals shall: be employed by the prime Contractor and be responsible to the CQC System Manager for all CQC related issues and matters; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience to ensure contract compliance. The supplemental staff shall be maintained under the direction of the CQC System Manager to perform all CQC activities. The staff must be of sufficient size to ensure adequate CQC coverage of all work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned CQC responsibilities and must be allowed sufficient time to carry out these responsibilities. The CQC plan will clearly state the duties and responsibilities of each staff member.

3.4.3.1 Supplemental CQC Personnel

The actual strength of the CQC staff may vary during any specific work period. When necessary to meet the CQC requirements of a specific work period and to assure an adequate CQC organization, the Contractor shall provide additional staff as necessary at no additional cost to the Government. This listing of a minimum staff in no way relieves the Contractor of meeting the basic requirements of quality

construction in accordance with contract requirements. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.4 Additional Requirements

In addition to the above experience and education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors".

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all time. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

3.5 SUBMITTALS

Submittals shall be made as specified in Section 01330, SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each major feature of work, and after all required plans, documents, and materials are accepted and/or approved. This phase shall include:

- (a) A review of each paragraph of applicable specifications.
- (b) A review of the contract drawings.
- (c) A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- (d) Review of provisions that have been made to provide required control inspection and testing.
- (e) Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- (f) A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- (g) A review of the appropriate Activity Hazard Analysis to assure safety requirements are met.
- (h) Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that major feature of work.
- (i) A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- (j) Discussion of the initial control phase.
- (k) The Government shall be notified at least 72 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the major feature of work. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily Quality Control Report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a major feature of work. The following shall be accomplished:

- (a) A check of preliminary work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- (b) Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- (c) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Comparison with sample panels is appropriate.
- (d) Resolve all differences.
- (e) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- (f) The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- (g) The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work, which may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phase

Additional preparatory and initial phases may be conducted on the same major features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, on-site production supervision or work crew, if work on a major feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 INSPECTIONS AND TESTS

Except for tests specifically noted to be made by the Government, the Contractor shall be responsible to make such inspections and tests as may be necessary to assure compliance with all requirements of the various sections of these specifications. All costs connected with and incidental to the sampling, inspections, testing and preparations of reports pertaining thereto shall be borne by the Contractor. Daily reports of all inspections and test, and remedial action taken when required, shall be submitted to the Contracting Officer.

3.8 COMPLETION INSPECTION

At the completion of all work or any increment thereof established by a completion time stated in the Section 00800, Special Contract Requirements, COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK, or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for

completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.9 DOCUMENTATION

3.9.1 Report of Operations

The Contractor shall prepare and maintain a "Report of Operations" recorded on ENG. Form No. 4267 daily, and furnish the original and one copy thereof to the Contracting Officer's Representative. In addition to the daily reports, the Contractor shall prepare a monthly report using ENG. Form 4267, Report of Operations for each month or partial month's work. The monthly report shall be submitted on or before the seventh of each month, consolidating the previous month's work. Upon the completion of the job and before final payment is made to the Contractor, the Contractor shall submit a job report for consolidating the monthly reports using ENG. Form 4267. Further instructions on the preparation of the report will be furnished at the Preconstruction Conference.

3.9.2 Construction Quality Control Report

The Contractor shall prepare and maintain daily records of all quality control operations and activities, identified safety and occupational health deficiencies and corrective measures, inspections, and tests performed, including work of subcontractors. These records shall be recorded and submitted daily on the "Construction Quality Control" form. Documentation on the appropriate form shall include factual evidence that required quality control activities and /or tests have been performed, including but not limited to the following information:

- (a) Contractor/subcontractor and their area of responsibility.
- (b) Operating plant/equipment with hours worked, idle, or down for repair.
- (c) Work performed each day, giving location, description, and by whom.
- (d) Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- (e) Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements. Submittals reviewed, with contract reference, by whom, and action taken.
- (g) Off-site surveillance activities, including actions taken.
- (h) Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- (i) Instructions given/received and conflicts in plans and/or specifications.
- (j) Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 48 hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

Sample forms are included in the ATTACHMENTS located at the back of these specifications.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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SECTION 02325
DREDGING

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT PRICE

1.1.1 General

The work covered by this section consists of furnishing all plant, equipment, labor and materials, and performing all work required for the removal and disposal of all material, layout and accomplishment of all dredging work, and the movement of plant in accordance with these specifications and as indicated on the contract drawings. Operation and use and repair and maintenance of existing disposal areas shall be in accordance with this section.

1.1.2 Work Required by Bid Item 0001

The work required under this bid item shall include all costs connected with the mobilization and demobilization of all the Contractor's plant and equipment necessary for performing the work as specified.

1.1.3 Work Required by Bid Items 0002 and 0003

The work required under these bid items shall include the cost of furnishing all plant equipment, labor, transportation, supplies, and materials, and performing all operations required for the removal and disposal of all shoal material, the layout and accomplishment of all work, and the movement of plant between bid item areas as well as between the various acceptance sections and shoals within each bid item, as specified herein or indicated on the contract drawings. The contract prices per cubic yard for dredging shall be applicable to quantities in any extensions of shoals except as provided in Section 00800, Contract Clauses VARIATION IN ESTIMATED QUANTITY and VARIATION IN ESTIMATED QUANTITY - DREDGING.

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. Stoplog certification shall be submitted in accordance with Section 01330, SUBMITTAL PROCEDURES.

SD-08 Statement

Work Plan; GA

A draft work plan covering plant, equipment, schedule, order of work, and all other aspects of dredging and disposal operations shall be submitted by the Contractor at the preconstruction conference.

Dredging Plant List; GA

A complete listing of all dredging plant and machinery to be used in the work, including booster pumps, barges, skiffs, and other related equipment, shall be submitted prior to beginning work

SD-09 Report

Consolidated Report -- Dredging; FIO

At the completion of the work and prior to final acceptance, the Contractor shall complete and submit a Consolidated Report -- Dredging, on the form included in the Attachments.

1.3 CHARACTER OF MATERIALS

1.3.1 Character of Materials

Materials to be excavated are principally those that have accumulated as a result of shoaling and erosion that has occurred since the areas were last dredged. Bidders are expected to examine the site of the work, conduct their own investigations and decide for themselves the character of the materials and the difficulties of performing the work.

1.3.2 Debris

Various debris such as timber, roots, riprap, sheet metal, rope, cable, chain, etc., may be encountered and if, in the judgment of the Contracting Officer, it can be removed during normal dredging operations, the Contractor shall remove it. This debris shall become the property of the Contractor and shall be removed from the jobsite. The removal and disposal of this debris shall be accomplished at no additional cost to the Government. Disposal of debris will not be permitted on the riverbanks, in navigable waterways or disposal areas.

1.4 ESTIMATED QUANTITIES

1.4.1 Estimated Quantities

The total estimated quantities of material necessary to be removed from within the specified limits to complete the work are as follows:

SHOAL NO.	LOCATION- FROM STA. TO STA.	REQUIRED DREDGING PRISM C.Y. PL. MEAS. ^{1,2}	ALLOWABLE OVERDEPTH PRISM C.Y. PL. MEAS. ³	TOTAL C.Y. PL. MEAS.
4	Sta. 1454+00 to Sta. 1518+00	116,500	53,700	170,200
7	Sta. 1715 +00 to Sta. 1766+00	27,500	33,000	60,500
8	Sta. 1766+00 to Sta. 1808+00	51,700	34,800	86,500
9	Sta. 1808+00 to Sta. 1852+00	52,200	34,400	86,600
TOTALS:		247,900	155,900	403,800

NOTES:

1. Required dredging depths shall be as shown on the contract drawings.
2. The required dredging prism quantities include the optional side slope material associated with the required depth.
3. Allowable overdepth quantities include optional side slope materials associated with the allowable overdepth.

1.4.2 Shoaling Rates

The above quantity estimates were computed based on hydrographic surveys of the AIWW. These quantities have been adjusted based on historical shoaling records in order to allow for shoaling which may occur between the time the condition survey was made, as indicated on the drawings, and the date of the before dredging survey after contract award.

1.4.3 Funds

Within the limit of available funds, the Contractor will be required to excavate the entire quantity of material necessary to complete the work specified herein, be it more or less than the amounts above estimated, all work to be done in accordance with the contract at the contract price or prices, except as may be affected by Section 00800, contract clause VARIATIONS IN ESTIMATED QUANTITIES and paragraph VARIATIONS IN ESTIMATED QUANTITIES - DREDGING.

1.5 OVERDEPTH AND SIDE SLOPES

1.5.1 Required Dredging Prism

The Contractor shall dredge all shoals to the required depths as indicated on the contract drawings. The Contractor is required to cut the channel vertically to the required depth along each toe; however, the Contractor will be paid for material removed from the side slopes as described in paragraph SIDE SLOPES below.

1.5.2 Allowable Overdepth Prism

To cover inaccuracies of the dredging process, material actually removed from within the specified areas to be dredged will be measured and paid for at the contract price to a depth below the required dredging depth not exceeding that shown on the contract drawings. This material is optional and shall not be considered for purposes of determining any variation in quantity. See Section 00800 Contract Clause VARIATION IN ESTIMATED QUANTITY - DREDGING.

1.5.3 Side Slopes

Dredging of side slopes is not required. The side slopes are indicated on the contract drawings. The Contractor is required to cut the channel vertically to the required depth at the channel toe. Material actually removed from outside the required section shown on the contract drawings as lying between the vertical cut and maximum pay slope plane will be computed and paid for at the dredging unit cost per cubic yard for that shoal area. Up to 100 percent of the material lying in this zone as calculated from the before dredging survey will be paid for at the dredging unit cost per cubic yard, if actually removed. For the purpose of dredging, the side slopes constitute a payment prism and are not intended as design criteria. Side slopes may fall flatter than those shown on the contract drawings; however, no payment will be made for material removed outside these specified limits.

1.5.4 Excessive Dredging

Material taken from beyond the limits as extended in the provisions of Paragraph Overdepth and Paragraph Side Slopes, above, will be considered as excessive dredging for which payment will not be made. Nothing herein shall be construed to prevent payment for the removal of shoals performed in accordance Paragraph FINAL EXAMINATION AND ACCEPTANCE or Paragraph SHOALING and as applicable and as further set forth under Paragraph MEASUREMENT AND PAYMENT, of this section.

1.6 SHOALING (1965 APR OCE)

If before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, dredging at contract price, within the limits of available funds, may be done if agreeable to both the Contractor and the Contracting Officer. This will include the dredging of adjacent horizontal extensions to the shoals included under this contract.

1.7 CONTINUITY OF WORK (1965 APR OCE)

No payment will be made for work done in any area designated by the Contracting Officer until the full depth required under the contract is secured in the whole of such area, nor will payment be made for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured except by decision of the Contracting Officer. Should any such nonadjacent area be excavated to full depth during the operations carried on under the contract, payment for all work therein may be deferred until the required depth has been made in the area intervening. The Contractor may be required to suspend dredging at any time when for any reason the gages or ranges cannot be seen or properly followed.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 INSPECTION

3.1.1 Inspection Requirements

The presence of the Quality Assurance Representative shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications.

The Contractor will be required:

(a) To furnish, on request by the Contracting Officer or any Quality Assurance Representative, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the work. However, the Contractor will not be required to furnish such facilities for the surveys prescribed in Paragraph FINAL EXAMINATION AND ACCEPTANCE.

(b) To furnish, on request by the Contracting Officer or any Quality Assurance Representative, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the dumping grounds.

3.1.2 Noncompliance

Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer and the cost thereof will be deducted from any amounts due or to become due the Contractor.

3.2 ORDER OF WORK

3.2.1 Order of Work

Acceptance sections shall be dredged in any order. The Contractor shall submit a plan for performing the work. The plan shall include a schedule, equipment list and description, and description of how work is to be accomplished. The work plan shall be submitted for Contracting Officer's approval a minimum of 30 days before any construction is to be performed.

3.2.1.1 Acceptance Sections

For the purpose of acceptance, each shoal shall comprise an acceptance section.

3.2.2 Advancement

Each shoal shall be dredged in its entirety before dredging commences on the next shoal. The Contractor must receive approval of the Contracting Officer before dredging may commence on the next shoal prior to the completion and acceptance of the previous shoal.

3.2.3 Simultaneous Dredging

Simultaneous dredging of any of the shoals shall not be allowed without prior approval of the Contracting Officer.

3.2.4 Use of More Than One Dredge

No more than one dredge working under this contract shall discharge into a disposal area at any given time without prior approval of the Contracting Officer.

3.3 PLANT

3.3.1 General

The Contractor agrees to keep on the job sufficient plant to meet the requirements of the work. Minimum dredging plant shall be as specified below in Paragraph Equipment and Machinery. The plant shall be in satisfactory operating condition and capable of safely and efficiently performing the work as set forth in these specifications. Inspection of equipment listed in the Plant and Equipment Schedule shall be made prior to commencement of work in order to determine if it is satisfactory so as to meet the requirements of work. The plant shall be subject at all times to inspection by the Contracting Officer and the U.S. Coast Guard. The plant listed on the Plant and Equipment Schedule required by Section 00100 Contract Clause PLANT AND EQUIPMENT SCHEDULE and Section 00800 Contract Clause PLANT AND EQUIPMENT SCHEDULE LIST is the minimum which the Contractor agrees to place and maintain on the job unless otherwise determined by the Contracting Officer, and its listing thereon is not to be construed as an agreement on the part of the Government that it is adequate for the performance of the work.

3.3.2 Equipment and Machinery

3.3.2.1 Inspection and Approval

A complete listing of all dredging plant and machinery to be used in the work, including booster pumps, barges, skiffs, and other related equipment, shall be submitted with the Plant and Equipment Schedule prior to beginning work. The listing shall include manufacturer and year of manufacture, operational capacities, safety features, operating and licensing requirements for operators, and a description of where and how the item of equipment or plant is to be employed in the work. All leaks and other deficiencies shall be promptly and properly repaired. The Contractor shall perform the scheduled dredging work on this contract with a hydraulic pipeline dredge having a minimum plant weight of 600,000 pounds with a minimum of 1,000 horsepower continuous to the pump, and shall be capable of safely and efficiently working in a tidal estuary environment. For the purpose of weight determination, dredge plant shall include the dredge and spud barge or other attachment, but shall not include pipeline. The Government will conduct a pre-award survey for which the Contractor will be required to provide as a part of the pre-award documentation a signed certificate verifying the plant to be used on the scheduled work meets the weight and horsepower requirements as specified. A notarized statement shall accompany the certification indicating the weight and horsepower of the plant, listing projects having similar conditions and dredge materials on which the dredge plant has been used, and documenting a production rate that is sufficient to accomplish the work as required by these specifications. Once the dredge certified as meeting these requirements has been mobilized to the project site, it shall not be removed from the project site until all scheduled work for the contract has been satisfactorily performed by the Contractor and accepted by the Government, except by written permission of the Contracting Officer.

3.3.2.2 Capacity of Plant

No reduction in the capacity of the plant, once inspected and approved by the Government to be sufficient for employment on the work, shall be made except by written permission of the Contracting Officer. The measure of the "capacity of plant" shall be its actual performance on the work to which these specifications apply.

3.3.2.3 Pump Curves

In addition to the signed certificate verifying the plant to be used on the scheduled work meets the minimum requirements specified herein, the Contractor shall submit as a part of the Work Plan and Quality Control Plan, the manufacturer's pump curve for each pump to be used during the project. This submittal shall verify that available plant capacity is sufficient to accomplish the work in accordance with all contract requirements. The submittal shall include the dredge's main pump, and, if applicable, the ladder pump, and any booster pump(s) to be used. If a substitution of equipment occurs during the contract period, the pump curve for each substitute pump shall be submitted at the time of substitution and recorded in the Daily Report of Operations. Each pump curve submitted shall clearly indicate the dredge name, contract number, pump function (main, ladder, or booster), and pump size. Each pump curve shall indicate the pump's performance (i.e., horsepower, efficiency, and rpm) for water plotted against hydraulic head and discharge velocity and flow rate. All data provided shall be accompanied with documentation verifying the pumps to be utilized in this work have provided this efficiency on previous work with similar conditions and materials.

3.3.2.4 Walkways and Guardrails

All floating plant and pipelines used as access ways or working platforms shall be equipped with walkways and guardrails conforming to Corps of Engineers Manual EM 385-1-1 and meet OSHA requirements for worker safety.

3.3.3 Pipelines

3.3.3.1 Condition of Pipelines

The Contractor will be responsible to see that pipelines are properly maintained during this contract. All pipelines for hydraulic machines must be kept in good condition at all times and any leaks or breaks along their length must be promptly and properly repaired. The Contractor shall provide lighting for floating pipeline in compliance with EM 385-1-1 and U.S. Coast Guard Regulations.

3.3.3.2 Submerged Pipeline

3.3.3.2.1 Placement of Pipeline

Submerged pipeline shall rest on the channel bottom where a pipeline crosses a navigation channel and while submerged; the top of the pipeline and any anchor securing the pipe shall be no higher than the required project depth for the navigation channel in which the pipe is placed.

3.3.3.2.2 Buoyant or Semi-buoyant Pipeline

Whenever buoyant or semi-buoyant pipeline is used, the dredge operator will assure that the pipeline remains fully submerged and on the bottom; whenever it is necessary to raise the pipeline, proper clearances shall be made and maintained and the entire length of the pipeline will be adequately marked.

3.3.3.2.3 Marking the Location of the Pipeline

The location of the entire length of submerged pipeline shall be marked with signs, buoys, lights, or flags as required by the U.S. Coast Guard and as approved by the Contracting Officer.

3.3.3.2.4 Inspections

Routine inspections of submerged pipe shall be conducted by the Contractor to ensure proper anchorage.

3.3.3.2.5 Removal of Related Equipment

All anchors and related material shall be removed by the Contractor when the submerged pipe is removed.

3.3.3.3 Floating Pipeline

Floating pipeline is any pipeline that is not anchored on the channel bottom. Floating pipeline, to include rubber discharge hoses, shall be clearly marked.

3.3.3.4 Location of Pipelines

Pipelines shall not be permitted to fluctuate between the water surface and the channel bottom or lie partially submerged.

3.3.4 Placement of Lights

Dredge pipelines that are floating or supported shall display lights at night and in periods of restricted visibility in accordance with USCG regulations and 33 CFR 88.15.

3.3.5 Buoys

All marker buoys shall be painted yellow and display the same yellow flashing light as required for floating or supported dredge pipelines meeting the requirements of paragraph "Placement of Lights" above.

- (1) Buoys used to anchor booster pumps
- (2) Buoys used to anchor or mark stored equipment i.e. (barges, pipeline etc.)
- (3) Buoys used to mark or anchor dredge pipelines and this includes floating and submerged pipeline leading to disposal areas.
- (4) Any other buoys the U.S. Coast Guard or Contracting Officer requires to insure a safe harbor free from hazards to navigation must be marked and display yellow flashing lights meeting the requirements stated in paragraph "Placement of Lights" above.

3.3.6 Submerged Pipeline or Fittings

All submerged pipeline or fittings with less than six (6) feet of clearance between the top of the pipeline and mean low water will:

- (1) be marked with the same type of light meeting the requirements of paragraph "Placement of Lights" above.
- (2) be spaced approximately one hundred (100) feet apart

3.3.7 Lights, Lighted Buoys and Dredging Aids Markers

All lights, lighted buoys and dredging aids markers shall be maintained, operable, and on station at all times to insure a safe harbor. The placement, markings and lighting shall meet all U.S. Coast Guard Regulations and EM 385-1-1.

3.3.8 Noncompliance

The Contracting Officer will notify the Contractor in writing of any noncompliance with the foregoing provisions. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. Within 24 hours after receipt of such notice, the Contractor shall mail, or personally deliver to the Contracting Officer, a complete proposal of the prompt correction of the noncompliance. The Contracting Officer will review the proposal and return it to the Contractor approved, subject to such changes or conditions as he finds necessary to assure correction of noncompliance. Immediately upon receipt of such approval, the Contractor shall begin the corrective work and shall carry it to completion. If the Contractor fails or refuses to submit his proposal or to proceed with the corrective work, the Contracting Officer may suspend all or any part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such suspension shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor. If he so elects, the Contracting Officer may cause the corrective work to be accomplished by others, in which event the cost thereof shall be chargeable against moneys otherwise due the Contractor from the Government.

3.3.9 Plant Removal

Upon completion of the work, the Contractor shall promptly remove all plant, including all pipeline, ranges, buoys, piles, and other markers or obstructions.

3.4 SIGNAL LIGHTS (DAEN PRP ON-TIME 12 JUL 1984)

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by of other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (COMDTINST M16672.2), or 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland) as applicable.

3.5 NAVIGATION AIDS AND DREDGING AIDS

3.5.1 Relocation of Navigation Aids for Dredging

The U.S. Coast Guard requires notification sixty (60) days in advance to remove or relocate any navigation aids to facilitate dredging operations. Due to time constraints, the Government will notify the Coast Guard in advance of an estimated time and location that dredging operations will be accomplished. However, after award and prior to commencement of dredging it is the responsibility of the Contractor to coordinate with the Coast Guard for the actual removal or relocation of any navigation aids within or near the areas to be dredged. The Contractor will also notify the Contracting Officer in advance of the time and location of the aids that will require relocation. The Contractor shall coordinate the removal or relocation of navigation aids with the following:

Commander, 7th Coast Guard District (OAN)
Brickell Plaza Federal Bldg., Room 406
909 S.E. 1st Avenue
Miami, Florida 33131-3050
ATTN: Chief of Planning and Marine Information
Phone: (305) 350-5621

Commander, Charleston District
U.S. Coast Guard
196 Tradd Street
Charleston, South Carolina 29401
ATTN: Joe Cocking
Phone: (803) 724-7627

3.5.2 Aids to Navigation within the Dredging Areas

The Contractor shall be responsible for any damage to aids to navigation within the dredging areas or areas adjacent thereto caused by his operations.

3.6 COMMUNICATIONS

The Contractor will be required to furnish, maintain, and operate one FM narrow-band radio transmitter-receiver with a capacity of not less than (1) watt, equipped for operating on the maritime channel 13 at 156.65 MHz. This frequency shall be used for communications with passing vessels, harbor pilots, and bridge operators and has been approved by the Federal Communications Commission for this purpose. It is not required that his frequency be disabled after termination of the contract. Contractor will be required to maintain a Contractor-owned cellular phone for communication with Corps of Engineers personnel.

3.7 CERF IMPLEMENTATION (83 JUN OCE).

If the work specified in this contract is performed by hopper dredge, the owner must have an active Basic Ordering Agreement (BOA) for the hopper dredge on file with the Corps. The Contractor shall be obligated to make the hopper dredge available to serve in the Corps of Engineers Reserve Fleet (CERF) at any time that the hopper dredge is performing work under this contract. When the Contracting Officer is notified of the decision to activate this dredge into the CERF, he shall take appropriate action to release the dredge. He may then extend or terminate the contract to implement whichever action is in the best interest of the Government. The CERF Contractor shall also be subject to the following conditions:

(a) The Director of Civil Works may require the Contractor to perform emergency dredging at another CONUS (48 contiguous states) site for a period of time equal to the remaining time under this contract at the date of notification plus up to ninety (90) days at the previously negotiated rate which appears on the schedule of prices in the BOA.

(b) The Chief of Engineers may require the Contractor to perform emergency dredging at an OCONUS (Outside CONUS which includes Alaska, Hawaii, Puerto Rico, the Virgin Islands, or U.S. Trust Territories) site for a period of time equal to the time remaining under this contract at the date of notification plus up to one hundred eighty (180) days at the negotiated rate which appears on the schedule of prices in the BOA.

(c) The CERF shall be activated by the Chief of Engineers or the Director of Civil Works; then the Ordering Contracting Officer will notify the Contractor. From the time notification, the selected hopper dredge(s) must depart for the emergency assignment within seventy-two (72) hours for CONUS or ten (10) days for OCONUS assignments.

(d) A confirming delivery order will be issued pursuant to the Basic Ordering Agreement (BOA) by the Ordering Contracting Officer. Such delivery order shall utilize the schedule of rates in the BOA for the specific hopper dredge(s).

(e) If during the time period specified in a, b, or c, above, a CERF vessel is still required, the contract performance may be continued for additional time by mutual agreement.

3.8 DISPOSAL OF EXCAVATED MATERIAL

3.8.1 General

Material dredged under this contract shall be transported and deposited in the disposal areas designated in the table below and shown on the contract drawings. Disposal of excavated materials shall be in accordance with these specifications and drawings. In the event of dike breaching, pumping of material into the disposal area shall be immediately stopped until repairs are made to the dike.

3.8.2 Disposal Areas

Material dredged from each shoal shall be transported and deposited in the designated disposal areas as follows:

<u>Shoal No.</u>	<u>Stations</u>	<u>Location</u>	<u>Disposal Area</u>
4	1454+00 to 1518+00	North Edisto River	Open Water, No. Edisto River
7	1715+00 to 1766+00	Watts Cut	1743 C-P
8	1766+00 to 1808+00	Watts Cut	1764 C-P, 1789 C-P
9	1808+00 to 1852+00	Watts Cut	1820 C-P, 1835 C-P

Note: See drawings for additional requirements for use of disposal areas.

3.8.3 Use and Operation of Disposal Areas

The Contractor shall assume all responsibility for use and operation of designated disposal areas such that all material dredged under this contract is contained. This responsibility includes but is not limited to controlling or limiting inflow rate, proper operation of effluent control structures (spillways), sandbagging, repairing dikes, raising dikes to maintain a 1 foot minimum freeboard at all times, and maintaining the specified effluent water quality at all times. It shall be the Contractor's responsibility to shut down or use intermittent dredging if inflow rates exceed the water/solids retention capacity of the designated disposal area. The Contractor shall be responsible for placing all shoal material into the disposal areas and for maintaining water quality. If this requires either stopping dredging to allow settlement or moving the dredge to another shoal and returning to complete at a later time, it shall be at no additional cost to the Government (refer to Paragraph Advancement for Contracting Officer approval requirements).

3.8.4 Use of Spillways

If a disposal area has 2 or more spillways, the Contractor shall install stoplogs to close the spillway(s) nearest to the discharge point and use the spillway located the maximum distance from the dredge discharge point for outflow from the disposal area, unless otherwise indicated on the drawings.

3.8.5 Discharge Points and Discharge lines

3.8.5.1 Discharge Points

The discharge line from the dredge shall be located at the discharge points indicated on the drawings or approved by the Contracting Officer. The Contractor shall be responsible for locating the discharge lines in such a manner as to prevent dredged material from running back into the channel or anywhere else outside the designated disposal area limits. As material builds up at the point of discharge, the discharge line shall be extended, moved, or relocated as necessary to prevent overtopping the dike. The end of the discharge line shall be located at least 100 feet from the dike embankment, unless otherwise approved. Relocation of the indicated discharge point shall have prior approval of the Contracting Officer.

3.8.5.2 Temporary Installation across Marsh

Installation and removal of pipelines across marsh and other sensitive areas shall be accomplished in an approved manner that will minimize damage to plants and terrain. Floating the pipe at high tide and pulling it across the marsh using a winch and cable is an acceptable method of installation. The Contractor shall repair damages that are excessive, in the opinion of the Contracting Officer, at the Contractor's expense. Such repairs may include regrading deep ruts and replanting marsh grasses.

3.8.6 Monitoring of Dikes and Spillways

The Contractor shall provide full-time monitoring of the dikes and spillway discharges to assure retention of dredged material within the disposal areas and to ensure total suspended solids (TSS) are minimized in the return water. Full-time monitoring shall be defined as having a minimum of 2 Contractor Quality Control personnel attending the disposal area at all times when the dredge is operating. Such personnel shall be equipped with a portable radio or telephone at all times while monitoring the dikes and spillways. Constant communication shall be maintained with the dredge to relay information about dike conditions and weir operations.

3.8.7 Monitoring Discharges from Spillways

The Contractor shall conduct dredging operations in a manner that will insure compliance with South Carolina Department of Health and Environmental Control (SCDHEC), "Water Quality Monitoring Plan for Dredged Material Disposal Sites in the Charleston District" (WQMP) at no additional cost to the Government. A copy of the WQMP is available upon request from the Low Country Resident Office, telephone 843-329-2339. During the period of this project, the Contractor shall visually monitor discharges from all spillways and outfall pipes and take necessary action to minimize discharge of TSS. Should concern arise regarding excess TSS caused by improper management of the spillways or dredging operations, samples may be collected by Government personnel for laboratory analysis. Following receipt of the laboratory analysis, the Contractor may be required to modify his operations to reduce the TSS below 110 mg/l.

3.8.8 Maintenance of Spillways, Culverts, and Dikes

The Contractor will be responsible to patrol, maintain and repair any damage to drainage culverts and spillway pipes under the roads and dikes. At the completion of dredging operations all roads and the tops of dikes will be left in a smooth and graded condition. The Contractor shall use only rubber-tired 4-wheel-drive vehicles for transportation around top of dikes. Track equipment shall not be used on top of dikes for transporting personnel. All pot holes, ruts, and areas with ponded water which are caused by traffic from the Contractor's personnel and/or equipment will be repaired to the original condition or better. The Contractor will grade and crown the roads in a manner so as not to leave berms on the shoulders of the road or top of the dike. The Contracting Officer's Representative will designate a borrow area if fill material is necessary for road fill.

3.8.9 Misplaced Dredged Material

Any material that is deposited or allowed to flow elsewhere than in places designated or approved by the Contracting Officer will not be paid for. Should the Contractor during the progress of work, deposit any material outside the designated disposal areas or areas approved by the Contracting Officer which result in the unauthorized fill of waterways, drainage ditches, or marshlands etc., the Contractor shall be required to remove this misplaced material and deposit it in an area designated by the Contracting Officer at no additional cost to the Government. The Contractor shall give immediate notification of the location of the misplaced material and when required mark or buoy this location until the Contractor can remove it. If the misplaced material is subsequently removed and placed in an approved disposal area, payment will be made for the initial dredging in accordance with the Bidding Schedule. The Contractor will be responsible for any damage to existing facilities or private property caused by misplaced dredged material or discharge water.

3.8.10 Runoff of Discharge Water

Runoff of discharge water shall be so regulated as to prevent obstructing natural drainage and the deposit of dredged material in navigable channels. The Contractor will be required to remove without cost to the United States Government any deposits in such channel as a result of dredge discharge and will be responsible for any damage to other areas and to existing facilities or private property caused by dredged material.

3.8.11 Drainage of Surface Water

Prior to completion of the contract, and after the dredged material has stabilized, the Contractor shall remove spillway stoplogs to an elevation below the surface of any clarified water to permit drainage of the surface water only. Upon completion of each acceptance section or move from a disposal area, the Contractor shall begin surface water drainage from the containment area by removing the stoplogs to an elevation below the surface of the clarified water. All excess stoplogs shall become the property of the Contractor and shall be removed from the site.

3.8.12 Final Inspection of Disposal Areas

Upon completion of disposal operations the Contractor shall inspect all disposal areas to determine if all requirements of this paragraph have been met.

3.9 MAINTENANCE AND REPAIR OF DIKES AND SPILLWAYS

3.9.1 Maintenance and Repair of Dikes

Minor dike maintenance and repair shall be performed as shown on the drawings and as specified herein in order to contain the material to be dredged under this contract. The Contractor shall be responsible for maintenance, repair, sandbagging, and raising of existing dikes as necessary in order to contain all the material to be excavated under this contract. The Contractor shall provide for minimum freeboard during dredging operations as specified in Paragraph Use and Operation of Disposal Areas. All costs for dike and spillway maintenance and repair work required by this paragraph shall be included in the prices bid for other items of work.

3.9.2 Spillways

3.9.2.1 General

Existing spillways (weirs) are located as shown on the drawings. The Contractor shall perform minor repairs to spillways as indicated on the drawings. It shall be the responsibility of the Contractor to maintain spillways during the period of this contract and to furnish and install all spillway stoplogs.

3.9.2.2 Stoplogs (Spillway Boards)

Stoplog certification is required and shall be submitted to the Contracting Officer for approval or compliance to the specifications listed. All Stoplogs shall be 3-inch by 6-inch (tongue and groove) lumber Southern Yellow Pine #2 or approved equal and shall conform to AWP standard C2 and shall be pressure treated with 2.5-pounds/cubic foot waterborne salt retention or other approved equivalent preservative treatment. Existing 4-inch by 4-inch stoplogs (if any) may remain one foot below the existing fill or mud line only. The Contractor shall be responsible for a tight seal between any existing 4" x 4" stoplogs and new 3" x 6" tongue and groove stoplogs. In addition, the Contractor shall inspect all existing stoplogs below the existing fill or mud line and shall be responsible for ensuring that they are sound and watertight. Tongue and groove lumber and dressed lumber shall not be mixed. Plastic sheeting, plywood, or other like materials shall not be used in weirs to prevent leaking; however, geotextile filter fabric or other approved materials may be utilized to prevent sediment from passing through the weir. Stoplogs shall be cut to proper lengths to fit the spillways to prevent binding in spillway channels (guides) and to prevent leakage around the ends. The stoplogs shall

not be warped and shall provide a watertight fit. All spillways and surrounding areas shall be maintained as required to insure proper spillway operation.

3.9.2.3 Spillway Repairs

Existing spillways may need minor repairs, such as re-opening channel guides for weir boards, replacing pipe support boards, etc., and should be inspected by prospective bidders prior to submitting bids. The Contractor shall make all necessary repairs with prior approval of the Contracting Officer; however, no separate payment will be made for such repairs. The cost of all spillway repairs shall be included in the contract prices for other items of work.

3.10 PROTECTION OF OYSTER BEDS

The Contractor shall investigate the location of all oyster beds in all sections of the waterway and he will be held responsible for any damage to oysters outside the canal prism and the disposal areas that may be caused by dredging operations under this contract. In the vicinity of oyster beds, greater care will be necessary to prevent the deposit of dredged material or the runback of dredge discharge water within the beds.

3.11 MISPLACED MATERIAL (JAN 87)

Should the Contractor, during the progress of the work, lose, dump, throw overboard, sink, or misplace any material, plant, machinery, or appliance, which in the opinion of the Contracting Officer may be dangerous to or obstruct navigation, the Contractor shall recover and remove the same with the utmost dispatch. The Contractor shall give immediate notice, with description and location of such obstructions, to the Contracting Officer or Quality Assurance Representative, and when required shall mark or buoy such obstructions, until the same are removed. Should he refuse, neglect, or delay compliance with the above requirements, such obstructions may be removed by the Contracting Officer, and the cost of such removal may be deducted from any money due or to become due the Contractor, or may be recovered under his bond. The liability of the Contractor for the removal of a vessel wrecked or sunk without fault or negligence shall be limited to that provided in Sections 15,19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et seq.).

3.12 MEASUREMENT AND PAYMENT

3.12.1 Measurement

The required amount of material removed and placed by dredging according to contract specifications will be measured and paid for by the cubic yard in situ. The volume for payment will be computed between the original bottom surface as shown by soundings from the last survey made before dredging and the required dredging template plus allowable overdepth, less any material remaining above and within the template as determined by the soundings from a survey made within 14 days (weather permitting) after dredging in the Acceptance Section has been completed. This includes the area within the limits of the allowable overdepth and side slopes described in Paragraph OVERDEPTH AND SIDE SLOPES, less any deductions that may be otherwise required by these specifications. Volume calculations shall be done using the average end area method with a maximum cross section spacing of 200 feet.

3.12.2 Adjacent Acceptance Sections

When two shoals are adjacent to each other and share a common end area (cross section), the common cross section taken to compute the quantity of material available before dredging takes place in the first shoal will be used to compute the quantity of material available for the second adjacent shoal. This cross section will be used in lieu of the cross section taken after dredging occurred in the first shoal.

3.12.3 Surveys

The maps and/or drawings already prepared, as stated in Section 00800 Contract Clause CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS, are believed to represent accurately conditions existing at the time surveyed but the depths shown thereon will be verified and corrected by before dredging sounding taken of all areas to be dredged under this contract. The first acceptance section will be sounded commencing not less than 20 days after Notice to Proceed has been given the Contractor or sooner if requested in writing by the Contractor. The before dredging surveys for the remaining acceptance sections will be sounded commencing not more than 14 days prior to the arrival of the Contractor on the section to be dredged. The Contractor shall notify the Government in writing a minimum of ten days prior to estimated time of arrival at each section to allow time for the before dredging survey to be conducted. The Contractor shall determine the estimated time of arrival. Requests for each Government survey of an Acceptance Section shall be in writing by the Contractor and shall include the shoal number(s), station limits, and the estimated date of dredge arrival at the shoal(s) to be dredged. Determination of quantities removed and the deductions made from them to determine quantities by place measurement to be paid in the area specified after having once been made will not be reopened except on evidence of collusion, fraud, or obvious error.

3.12.3.1 Survey Equipment

The Government will take the soundings for all dredging surveys under this contract with Innerspace depth sounders operating at a frequency of 200 KHz.

3.12.4 Payments

Monthly partial payments will be based on approximate quantities estimated by the construction representative using information taken from the surveys as described in Section 00800 Contract Clause QUANTITY SURVEYS.

3.13 DATUM AND BENCH MARKS

The plane of reference as used in these specifications is that determined by benchmarks shown on Monumentation Maps available upon request from the Navigation Section, U.S. Army Corps of Engineers, 69A Hagood Avenue, Charleston, South Carolina.

3.14 FINAL EXAMINATION AND ACCEPTANCE (1965 APR OCE)

3.14.1 Examination

Dredging soundings will be taken within 14 days, weather permitting, after completion of an acceptance section or any section thereof that, in the opinion of the Contracting Officer, will not be subject to damage by further operations under the contract. Such work will be thoroughly examined at the cost and expense of the Government by soundings or by sweepings, or both as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor shall remove the material at the contract unit price for dredging; however, if the bottom is soft and the shoal areas are small and form no material obstruction to navigation in the opinion of the Contracting Officer, the removal of such shoal may be waived at the discretion of the Contracting Officer. The Contractor or his authorized representative will be notified when soundings and/or sweepings are to be made and will be permitted to accompany the survey party. When the area is found to be in satisfactory condition, it will be accepted finally. Should more than two Government soundings or sweeping operations of an area be necessary due to necessary removal of high spots disclosed by a prior sounding or sweeping, the cost of such third and any subsequent soundings or sweeping operations will be charged against the Contractor at the rate of \$3,000.00 per day for each day in which the Government plant is engaged in sounding or sweeping and/or is en route to or from the site or held at or near the site for such operations. The plant and method used for third and subsequent surveys will duplicate that used in previous surveys to the fullest possible extent. The request for acceptance survey for any section shall be given at least five (5) days in advance of the estimated date of completion. The Contractor shall determine the estimated date of completion. The request for each

Government survey of an Acceptance Section shall be submitted in writing by the Contractor and shall include the shoal number(s), station limits, and the expected date of completion.

3.14.2 Acceptance

Final acceptance of the whole or a part of the work and deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

3.14.3 Acceptance of Work

Surveys will be conducted and acceptance of the dredging work shall be in the same order as specified in Section 02325, paragraph ORDER OF WORK.

-- End of Section --

ATTACHMENTS

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>No. of PAGES</u>
A	CONSTRUCTION QUALITY CONTROL REPORT	2
B	REPORT OF OPERATION-PIPELINE, DIPPER OR BUCKET DREDGES (ENGFOM 4267)	2
C	DEFICIENCY TRACKING LOG	1
C-1	LOG AND SUMMARY OF OCCUPATION INJURIES AND ILLNESSES (OSHA FORM 200)	2
D	MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PROGRAM	8
E	ACTIVITY HAZARD ANALYSIS	1
F	REPORT OF WEEKLY SAFETY MEETING (SAC FORM 253)	1
G-1	SAD FORM 1437a-R, FLOATING PLANT	8
G-2	SAD FORM 1437b-R, LAUNCHES, MOTORBOATS, AND SKIFFS	2
G-3	SAD FORM 1666a-R, CRAWLER, TRUCK, AND WHEEL MOUNTED CRANES	4
G-4	SAD FORM 1666b-R, PORTAL, TOWER, AND PILLAR CRANES	2
G-5	SAD FORM 1666c-R, RIGGING	4
G-6	SAD FORM 1666d-R, MOTOR VEHICLES, TRAILERS, AND TRUCKS	3
G-7	SAD FORM 1666e-R, CRAWLER TRACTORS AND DOZERS	2
G-8	SAD FORM 1666f-R, SCRAPERS, MOTOR GRADERS, AND OTHER MOBILE EQUIPMENT	3
G-9	SAD FORM 1666g-R, MATERIAL HOISTS	1
G-10	SAD FORM 1666h-R, EARTH DRILLING EQUIPMENT	1
H	SHOP DRAWINGS AND MATERIALS SUBMITTAL CONTROL FORM (ENG 4288-R)	2
H-1	TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, MANUFACTURERS' CERTIFICATES OF COMPLIANCE (ENG FORM 4025-R)	2
I	DISCLOSURE OF LOBBYING ACTIVITIES Standard Form LLL	3
J	CONSTRUCTION PROGRESS CHART	1
K	WAGE RATES	3
L	CONSOLIDATED REPORT	5
M	MANATEE SIGHTING FORM	1

FORMAT

CONTRACTOR'S NAME
(Address)

CONSTRUCTION QUALITY CONTROL REPORT

Date: _____ Report No. _____

Contract No. _____

Description and Location of Work: _____

Weather: (Clear) (P. Cloudy) (Cloudy): Temperature: _____ -Min, _____ Max;;
Rainfall _____ Inches

Contractor/Subcontractors and Area of Responsibility _____

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____

1. Work Performed Today:

(Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.)

2. Results of Control Activities:

(Indicate whether: P-Preparatory, I-Initial, or F-Follow-up and include satisfactory work completed or deficiencies with action to be taken.)

3. Test Required by Plans and/or Specifications Performed and Results of Tests:

4. Monitoring of Materials and Equipment:

5. Off-Site Surveillance Activities:

6. Job Safety and Health Deficiencies:

(Daily Comment Required)

7. Remarks:

- a. (Cover any conflicts in plans and specifications or instructions.)
 - b. (Action taken in review of submittal.)
 - c. (Verbal instructions received.)
-

CONTRACTOR'S VERIFICATION:

The above report is complete and correct and all material and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications except as noted above.

Chief of Contractor Quality Control

REPORT OF OPERATIONS-PIPELINE, DIPPER OR BUCKET DREDGES					REPORTS, CONTROLS SYMBOL ENG CW-0-13		
THRU:		TO:		FROM:		REPORT NO.	
CHARACTER OF REPORT	<input type="checkbox"/> MAINTENANCE <input type="checkbox"/> NEW WORK <input type="checkbox"/> DAILY <input type="checkbox"/> STATUS <input type="checkbox"/> COMPLETION <input type="checkbox"/> ANNUAL					DATE OF PERIOD	
	NAME AND TYPE			SIZE ---->	PIPELINE <i>in. dia. disch.</i>		DIPPER OR BUCKET <i>cu. yds. cap.</i>
DREDGE	HORSEPOWER OF ----->		DREDGE PUMP	SUCTION PIPE JET	CUTTER OR BUCKET		PROPULSION
	NUMBER OF CREW MEMBERS ----->		DREDGE	SHORE	OTHER PLANT	TOTAL 0	WORK SCHEDULE ----->
PROJECT AND BAR	NAME						
	LOCATION <i>(include station numbers)</i>						
CHARACTER OF MATERIAL	ABSOLUTE DENSITY <i>GMS/liter</i>		IN PLACE DENSITY <i>GMS/liter</i>		VOIDS RATIO		
	GRAIN SIZE <i>D." MM D." MM D." MM</i>				GEOLOGICAL CLASSIFICATION		
CONTRACT OR DREDGING ORDER	NUMBER			<input type="checkbox"/> CONTRACTOR <input type="checkbox"/> HIRED LABOR		TOTAL NO. OF DAYS ON WHICH WORK WAS DONE	
	CHANNEL CONDITION	AVERAGE DEPTH ----->	BEFORE DREDGING	AFTER DREDGING	MINIMUM SOUNDING ----->	BEFORE DREDGING	AFTER DREDGING
RIVER STAGE	MINIMUM	TIME	MAXIMUM	TIME	GAGE LOCATION		
WEATHER CONDITION	<i>(clear, cloudy, rain, snow, and fog)</i>			VISIBILITY <i>miles</i>	WIND <i>(maximum velocity & direction)</i>		
	WORK PERFORMED			DISTRIBUTION OF TIME			
ITEM		UNIT	QUANTITY	EFFECTIVE WORKING TIME <i>(chargeable to cost of work)</i>		HOURS	MIN.
AVERAGE WIDTH OF CUT		FEET		PUMPING OR DREDGING			
TOTAL ADVANCE THIS PERIOD		FEET		PCT. OF EFFECTIVE RENTAL TIME %			
TOTAL ADV. PREVIOUS TO THIS PERIOD		FEET		BOOSTER <i>(in line)</i>		Hrs	Min.
TOTAL ADVANCE TO DATE		FEET		NON-EFFECTIVE WORKING TIME <i>(chargeable to cost of work)</i>			
FLOATING PIPE:		SHORE PIPE:					
TOTAL LENGTH OF DISCHARGE PIPE		FEET		HANDLING PIPE LINES			
AVERAGE LIFT		FEET		HANDLING ANCHOR LINES			
AVERAGE PUMP SPEED		R.P.M.		CLEARING PUMP AND PIPE LINE			
AVG. DREDGED PER PUMP. HR. GROSS		CU. YDS.		WAITING FOR SCOWS			
SCOWS LOADED		NUMBER		TO AND FROM WHART OR ANCHORAGE			
AVERAGE LOAD PER SCOW		CU. YDS.		CHANGING LOCATION OF PLANT ON JOB			
CUBIC YARDS REMOVED				LOSS DUE TO OPPOSING NATURAL ELEMENTS			
AMOUNT DREDGED THIS PERIOD:				LOSS DUE TO PASSING VESSELS			
(1) GROSS <i>(computed amount)</i>				SHORE LINE AND SHORE WORK			
(2) CREDITED <i>(pay place)</i>				WAITING FOR BOOSTER			
AMOUNT PREVIOUSLY REPORTED:				MINOR OPER. REPAIRS			
(1) GROSS <i>(computed amount)</i>				WAITING FOR ATTENDANT PLANT			
(2) CREDITED <i>(pay place)</i>				PREPARATION AND MAKING UP TOW			
TOTAL AMOUNT DREDGED TO DATE:				TRANSFERRING PLANT BETWEEN WORKS			
(1) GROSS <i>(computed amount)</i>				LAY TIME OFF SHIFT AND SATURDAYS			
(2) CREDITED <i>(pay place)</i>				SUNDAY AND HOLIDAYS			
ATTENDANT PLANT				FIRE DRILL			
ITEM	NAME OR NUMBER		HOURS	MISCELLANEOUS <i>(explain in remarks)</i>			
				TOTAL NON-EFFECTIVE WORKING TIME		0.00	
				PCT. OF NON-EFFECTIVE RENTAL TIME %			
				TOTAL EFFECTIVE AND NON-EFFECTIVE TIME <i>(not chargeable to cost of work)</i>		0.00	
				PCT. OF TOTAL TIME IN PERIOD %			
				LOST TIME <i>(not chargeable to cost of work)</i>			
				MAJOR REPAIRS AND ALTERATIONS			
				CESSATION			
				COLLISIONS			
				MISCELLANEOUS <i>(explain in remarks)</i>			
NUMBER OF INSPECTIONS	BY DISTRICT PERSONNEL		BY DIV & OCE PERSONNEL	TOTAL LOST TIME		0.00	
				PERCENTAGE OF TOTAL TIME %			
CONTRACT USE ONLY	HAS ANYTHING DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM? <input type="checkbox"/> NO <input type="checkbox"/> YES <i>(If "YES" explain under remarks on back)</i>			TOTAL TIME IN PERIOD		0.00	

SUMMARY OF COSTS

ITEMS					COST		
DIRECT PLANT OPERATING COSTS							
UNIFORM DAILY RATE BASIS (To be completed when submitting Status and Completion reports).							
CHARGES: _____ DAYS AT \$ _____ PER DAY (Item 19, ENG Form 22 (Costs) - adjusted to exclude plant increment costs.)							
➔ OR ➔							
ACUTAL PLANT COSTS (To be completed when submitting Annual report.)							
PAYROLLS (gross) _____				\$ _____			
Subsistence & quarters or per diem & mileage _____				\$ _____			
Fuel _____ BARRELS AT \$ _____ PER BARREL _____				\$ _____			
WATER _____				\$ _____			
LUBRICANTS _____				\$ _____			
PLANT OWNERSHIP COSTS (as computed below) _____				\$ _____			
INSURANCE _____				\$ _____			
ATTENDENT PLANT _____				\$ _____			
MISCELLANEOUS _____				\$ _____			
SUBTOTAL -- UNIFORM DAILY RATE OR ACTUAL COSTS _____						\$ _____	
SUBTOTAL -- PLANT UNIT COST \$ _____ PER CUBIC YARD.					_____		
SHORE WORK							
SUBTOTAL -- SHORE WORK COSTS _____						\$ _____	
SUBTOTAL -- SHORE WORK UNIT COSTS \$ _____ PER CUBIC YARD.					_____		
OTHER COSTS							
SURVEYS _____				\$ _____			
INSPECTION AND SUPERVISION _____				\$ _____			
OVERHEAD _____				\$ _____			
OTHER INDIRECT COSTS _____				\$ _____			
SUBTOTAL -- OTHER COSTS _____					\$ _____		
SUBTOTAL -- OTHER UNIT COSTS \$ _____ PER CUBIC YARD.					_____		
GRAND TOTAL - ALL COSTS					\$ _____		
GRAND TOTAL - OTHER UNIT COSTS \$ _____ PER CUBIC YARD.					_____		
OPERATING SUPPLIES					ANNUAL REPORT DATA		
		CONSUMED		INVENTORY		(complete when submitting Annual report)	
COMMODITIES	UNIT	QUANTITY	QUANTITY	VALUE			per min.
FUEL (oil)	BBS				COST PER RENTAL MINUTE (Based on total operating cost)	\$ _____	
LUBRICANT (oil)	GAL				TOTAL COST OF PLANT (End of F.Y. reporting period)	\$ _____	
LUBRICANT (grease)	LBS				BOOK VALUE (End of F.Y. reporting period)	\$ _____	
WATER	GAL				BALANCE IN PLANT ACCOUNT (End of F.Y. reporting period)	\$ _____	
					PLANT OWNERSHIP COSTS (Actual for F.Y. reporting period):		
SUBSISTENCE SUPPLIES.....					DEPRECIATION	\$ _____	
MISCELLANEOUS SUPPLIES.....					REPAIRS	\$ _____	
TOTAL.....				\$0.00	CESSATION OF WORK	\$ _____	
					SMALL TOOLS, ETC.	\$ _____	
					TOTAL.....	\$ _____	0.00
REMARKS							
SUBMITTED BY (Name, title, and signature)			RECOMMENDED BY (Name, title, and signature)			APPROVED BY (Name, title, and signature)	

MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PROGRAM

This outline is intended to be a guide and may be incomplete dependent on the type of operations to be performed. Its only purpose is to assist the contractor when submitting his proposal for carrying out the accident prevention provisions of the contract. When composing the proposals the Contractor must be mindful to be relevant, specific, and not copy or reproduce statements from safety regulations. Rather, his submitted proposals are to relate "how, who, why, what, where" he plans to perform the contracted work requirements in a safe manner using the Safety and Health Requirements Manual, EM 385-1-1, Revised September 1996 and current revisions to date. Non-applicable parts of this outline should be disregarded.

1. CONTRACT NO: DATE SUBMITTED:
2. CONTRACTORS NAME, ADDRESS AND TELEPHONE NO:
3. PROJECT LOCATION:
4. CONTRACTORS PAST SAFETY RECORD: (Including work with other Districts.)
 - A. Analysis of Accident experience
 - B. Years experience covers
 - C. Types of Accidents
 - D. Causes of Accidents
 - E. Corrective measures taken
 - F. Statement giving percent debit or credit of annual rate of compensation insurance
5. INVESTIGATION: All accidents investigation for the purpose of preventing similar accidents and gather facts
 - A. Procedures used in investigation accidents
 - B. Completeness and promptness of reports
6. SAFETY INSPECTIONS:
 - A. Who will perform these inspections
 - B. How often will they be conducted

C. What items will be inspected

- 1) Hand Tools
- 2) Equipment
- 3) Motor Vehicles
- 4) Housekeeping
- 5) Safe work practices
- 6) Sanitation
- 7) Personal Protective Equipment

7. SAFETY TRAINING

- A. Orientation and Instruction of new employee (safety topics)
- B. Who will give the orientation and instruction
- C. Knowledge of Corps of Engineers Safety Requirements

8. SAFETY MEETINGS:

- A. Who will conduct safety meetings
- B. What subjects will be discussed
- C. How often will meetings be conducted
- D. When will reports of these meetings be submitted
- E. Do you have an incentive program for safety consciousness
- F. Who will administer your overall Accident prevention Program

9. HEALTH AND SANITATION:

- A. Drinking Water
 - 1) Source
 - 2) Type of Dispensing Unit
 - a. methods
 - b. care of units

B. Toilet Facilities

- 1) Location
- 2) Type of Unit
- 3) Quantity
- 4) Service Frequency

C. Housing and/or office facilities

- 1) Location
- 2) Type of Accommodations

D. Medical Facilities

- 1) First Aid Capabilities
 - a. Number of trained personnel and certificate of qualifications
 - b. Number and type of first aid kits and supplies
 - c. How often are instructions given to employees
- 2) Professional care and services (names, addresses and phone numbers)
 - a. Local physicians
 - b. Hospital Facilities
 - c. EMS or Ambulance Service
- 3) Emergency Evacuation for Critically Injured personnel
 - a. Procedure
 - b. Helicopter Service and Phone Number

10. FIRE PREVENTION AND PROTECTION:

A List your Fire Fighting Personnel

- 1) Who has definite responsibility
- 2) How often are personnel trained

B. Fire Fighting Equipment/Extinguishers

- 1) Type of Service
- 2) Is it adequate
- 3) Where is it located
- 4) When is maintenance and inspection performed

C. Flammable

- 1) Types stored
- 2) How stored (methods)
- 3) Where stored (containers, cabinets, etc)
- 4) Dispensing methods

11. PERSONAL PROTECTIVE EQUIPMENT (PPE): (Safety hats, goggles, personal flotation devices, safety shoes, respirators, etc.

- A. Provided
- B. Use required
- C. Maintenance of PPE
- D. Storage

12. LIGHTING:

- A. On mobile equipment
- B. Work areas
- C. Access to work areas

13. TRANSPORTING PERSONNEL:

- A. Equipment used
 - 1) Design
 - 2) Capacity
 - 3) Maintenance and frequency
- B. Operators and Qualifications

14. MACHINERY AND EQUIPMENT: (includes floating plant)
 - A. Number and type equipment
 - B. Pre-work safety checks
 - C. Guards and safety devices
 - D. Maintenance and Servicing
 - E. Load tests
 - F. Operating Personnel
 - 1) Qualifications and Certification
 - 2) Responsibilities
 - 3) Observance of instructions, etc.
15. CLEARING OPERATIONS:
 - A. Burning
16. ACCESS FACILITIES:
 - A. Ladders
 - B. Stairways
17. HANDTOOLS
 - A. Electric
 - B. Pneumatic
 - C. Explosive activated
 - D. Other (specify)
18. WELDING AND BURNING OPERATIONS:
 - A. Type Equipment
 - B. Personal Protective Equipment and Devices
 - C. Storage of compressed cylinders (full and empty)
 - D. Safe practices
19. HEATING DEVICES:

- A. Types
 - B. Fuel
 - C. Maintenance
 - D. Locations
20. RIPRAP - METHODS OF PLACEMENT:
21. PROTECTION OF THE PUBLIC:
- A. Visitors
 - B. Pedestrians
 - C. Motor vehicles
 - D. Controls and procedures
22. HOUSEKEEPING POLICY:
- A. Procedures
 - B. Methods
 - C. Debris Disposal
23. EXCAVATIONS:
- A. Type
 - B. Depth
 - C. Shoring
 - D. Sloping
24. WATER SAFETY:
- A. Type and size floating plant
 - B. Use of personal protective equipment (PPE)
 - C. Life saving skiff
 - D. Lifesaving and rescue drills
 - E. Diving policy and notifications procedures (Separate plan must be submitted)

25. ELECTRICAL WIRING

- A. Voltage and uses
- B. Elevated and/or buried
- C. Grounding
- D. Ground fault circuit interrupters (GFCI's)
- E. Operators adjacent to overhead lines

26. NOISE ABATEMENT:

- A. Hearing Conservation Program
- B. Source
- C. Exposure controls (PPE)

27. HAZARD COMMUNICATION PROGRAM:

- A. Description of Company Policy
- B. Materials Safety Data Sheets (MSDS)
- C. Communication Methods with Employees

28. ALCOHOL AND DRUG POLICY:

29. COMPLIANCE STATEMENT:

(All work will be performed in accordance with Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, Revised September 1996, and current revisions to date, and will include any additional measures the Contracting Officer deems necessary for the prevention of Accidents.)

30. OTHER SAFETY HAZARDS:

(Describe any other hazards you may anticipate for this particular job and those measures that will be taken to eliminate them.)

31. ACTIVITY HAZARD ANALYSIS:

EM 385-1-1, requires an Activity Hazards Analysis to be prepared by the Contractor. This (phase plan) will be attached to the accident prevention plan. Work will not proceed until these plans have been accepted by the Government.

This plan has been reviewed and determined appropriate for the safe operations of this job.

PRIME CONTRACTOR

AUTHORIZED REPRESENTATIVE
OF THE CONTRACTING OFFICER

CHIEF, SAFETY OFFICE

ACTIVITY HAZARD ANALYSIS

ACTIVITY _____ ANALYZED BY/DATE _____ REVIEWED BY/DATE _____

PRINCIPAL STEPS	POTENTIAL HAZARDS	RECOMMENDED CONTROLS	
Identify the principal steps involved and the sequence of work activities	Analyze each principal step for its potential hazards	Develop specific controls for each potential hazard.	
EQUIPMENT TO BE USED	INSPECTION REQUIREMENTS	SUPERVISORY REQUIREMENT	TRAINING REQUIREMENT
List of equipment/machinery to be used in conducting the work activities.	List inspection requirements for the equipment/machinery listed.	List the names of the individuals responsible for the safe execution of these activities	Determine requirements for worker training including hazard communication.

REPORT OF WEEKLY SAFETY MEETING _____

(DR 385-1-4)

TO: Chief, Safety Office

FROM _____

DATE: _____ TIME: _____ (A.M./P.M.)

No. Employees Present _____ Duration: _____

Old Business: (Review report of last meeting. Follow up on action taken or anticipated to correct any safety deficiencies brought up at last meeting. Discuss any unfinished business.)

New Business: (Discuss any unsafe acts or conditions observed since last safety meeting and any mishaps or injuries which occurred during the week.)

Safety Presentation: Safety talk, movie, or slide presentation on subject that is relevant to operation at hand.)

SIGNATURE & DATE
Government Representative

SIGNATURE & DATE
Contractor Safety Representative

SAFETY CHECKLIST FOR FLOATING PLANT

Contract # and title:			
Contractor:		Subcontractor:	
Plant Name:		Owner:	
Superintendent:		Captain:	
Engineer:		Number in crew:	
Contract inspector:		Date inspected:	
	Yes	No	N/A
1. Is a copy of the current USCG Form 835 available for plants regulated by USCG? (19.A.01)			
2. Is documentation of an accredited marine surveyor (SAMS or NAMS) available for non USCG inspected plants? (19.A.01)			
3. Do all officers and crew possess an appropriate USCG license or USACE license and certification? (19.A.02)			
4. Are periodic inspections and test records of all floating plant, equipment, and machinery available as part of the official project file? (19.A.01)			
5. Is there a severe weather plan which contains the following available? (19.A.03)			
a. a description of potential types of severe weather hazards and steps to guard against the hazards?			
b. the time frame for implementing the plan?			
c. the name and location of the safe harbor?			
d. the name of the vessels which will be used to move any non-self propelled plant, and their type, capacity, speed, and availability?			
e. river gage readings at which floating plant must be moved away from dams, river structures, etc. to safe areas?			

	Yes	No	N/A
6. Is the station bill conspicuously posted throughout the vessel? (19.A.04)			
7. Has each crew member been given a written description of their emergency duties and are they familiar with them? (19.A.04)			
8. Have the following drills and tests been recorded in the station log? (19.A.04) a. abandon ship drill? b. fire drill? c. man overboard drill? d. pump shell or pipe rupture? e. hull failure? f. emergency power and lighting tests? g. bimonthly emergency power generator tests? h. bimonthly emergency lighting storage batteries tests?			
9. Are material safety data sheets(MSDSs) available for all hazardous materials on board? (06.B.01)			
10. Are employees trained to handle hazardous materials? (06.B.01)			
11. Are at least two employees on each shift certified in CPR and first aid? (03.A.02)			
12. Is there a first aid log at each first aid station? (01.D.04)			
13. Are first aid kits located in a readily accessible location and adequately stocked? (03.B.01 & .02)			
14. Is there an adequate supply of approved, potable drinking water available? (02.A.01)			
15. Are outlets dispensing non-potable water clearly marked "Water Unfit For Drinking, Washing or Cooking"?(02.A.07)			
16. Are the proper numbers of toilets, washbasins and showers provided? (02.B.06 & .07)			

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	Yes	No	N/A
17. Are water, soap, and a means of drying available? (02.C.02)			
18. Is the latest information published by the USCG regarding aids to navigation available on board the vessel? (19.A.11)			
19. Is the vessel equipped with: (19.A.05) a. fenders? b. axes or other emergency cutting equipment? c. an appropriate navigational signal device? d. general alarm system operated from primary electrical system with standby batteries on trickle charge? e. easily accessible emergency controls that are adequately protected against accidental operation? f. explosion-proof lights around gasoline and oil barges or other locations where a fire or explosive hazard exists? g. interconnected emergency alarms? h. smoke alarms in living quarters? i. doors that open from both sides? j. clearly marked emergency exits? k. emergency stops for prime movers operating a dredge pump? l. GFCI protection on grounded 120 or 240 volt systems in toilet/shower spaces, galley, machinery spaces, weather deck, exterior or near any sinks? m. properly maintained and identified water tight compartments?			
20. Fuel systems: (19.A.06) a. Are tanks or lines free of gauge glasses or try cocks? b. Do all fuel tanks have shutoff valves that can be operated outside the compartment in which the tank is located and outside the engine compartment and outside the house bulkheads at or above the weather deck? c. Is there a shut off valve at the engine end of the fuel lines that are 6 feet or more in length and can it be operated from outside the house bulkheads at or above the weather deck? overboard discharge?			

<p>d. Are all carburetors on gasoline engines equipped with a backfire trap or flame arrestor?</p> <p>e. Are all carburetors (except downdraft type) equipped with a drip pan, with flame screen, which is continuously emptied by suction from the intake manifold or if permitted by the overboard discharge?</p> <p>f. Are fuel storage tanks diked or curbed IAW NAVFAC DM-22? If not are portable tanks used IAW USCG requirements in 46CFR Parts 64 and 98.3?</p>	Yes	No	N/A
21. Are cables which cross the waterways between floating plants or between plant and mooring marked? (19.A.07)			
22. Is there a fire and emergency warning system (or an established fire watch) on all vessels where people are quartered? (19.A.07)			
23. Are all floors, decks, and bilge's free of accumulation of fuel and grease? (19.A.07)			
24. Are there holdbacks or rings available to secure equipment during rough weather? (19.A.07)			
25. Are all deck openings, elevated surfaces, and similar locations provided with guardrails, bulwarks, or taut cable guardlines? (19.A.07)			
26. Are all rotating machinery, hot pipes, and moving cables guarded against accidental contact? (16.B.03)			
27. Are hazardous energy control procedures available to insure that machinery will not be operated while greasing or making repairs? (12.A.01 & 16.A.08)			
28. Are decks free of tripping hazards? or adequately marked in yellow? (19.A.07)			
29. Is all deck cargo carried on fuel barges placed on dunnage? (19.A.07)			
30. Are all pieces of floating plants operating as one unit securely fastened together with no openings(or with guarded openings)? (19.A.07)			
31. Is there a list of confined spaces available? (19.A.08)			

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32. Are all permitted required confined spaces labeled? (19.A.08)	Yes	No	N/A
33. Are engine spaces housing internal combustion engines having electric spark ignition systems equipped with exhaust fans? (19.A.10)			
34. Are all machinery spaces and non-diesel fuel tanks compartments equipped with at least 2 ventilators, fitted with fans? (19.A.10)			
35. Are the following spaces provided with an adequate natural ventilation system? (19.A.10) a. spaces containing a portable fuel tank? b. living spaces or galley? c. other compartment spaces?			
36. Do vent intakes extend to within 1 foot of the bottom of the compartment? (19.A.10)			
37. Is suitable eye protection provided at battery charging stations? (05.B.01 & .05)			
38. Are eye wash stations provided at battery charging stations? (6.B.02)			
39. Are flammable items such as paint and thinners properly stored? (9.B)			
40. Are gasoline and other flammable liquids properly stored, dispensed, and handled? (09.B.01-.30)			
41. Does all electrical wiring meet requirements of USCG-259, the National Electrical Safety Code and the National Electric Code? (11.A.01)			
42. Are insulated mats provided at locations where machinery has exposed live parts? (11.A.07)			
43. Are switch and transformer banks adequately protected and marked to keep unauthorized personnel out of the danger area? (11.A.02)			
44. Are portable electric tools grounded by a multiconductor cord with an identified conductor and a multicontact polarized plug-in receptacle? (11.C.01)			

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	Yes	No	N/A
45. Are ground fault circuit interrupters provided in locations where portable tools could be used? (11.C.05)			
46. Are flexible cords protected in work area, appropriately secured or suspended and are they used for appropriate useages. (11.A.03 and Table 11-1?)			
47. Are all means of access properly secured, guarded and free of slipping and tripping hazards? (19.B.01)			
48. Are all working decks, stair treads, ship ladders, platforms, catwalks, and walkways, provided with non-slip surfaces? (19.B.01)			
49. Are grab bars provided on the sides of super structure of tugs, tenders, and launches except where railings are present? (19.B.01)			
50. Are double rung or flat tread type Jacob's ladders restricted to use only when no safer form of access is practical? (19.B.01)			
51. Is there a safe means for boarding or leaving the vessel? (19.B.02)			
52. Is there a stairway, ladder, ramp, gangway, or personnel hoist provided at all personnel points of access with breaks of 19" or more in elevation? (19.B.02)			
53. Are gangways and ramps: (19.B.02) a. secured at one end by at least one point on each side with lines or chains to prevent overturning? b. supported at the other end in such a manner as to support them and their normal loads in the event they slid off their supports? c. placed at an angle no greater than that recommended by the manufacturer? d. provided with a standard guardrail?			
54. Are stairs or permanent inclined ladders provided for vertical access between decks? (9.B.03)			

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	Yes	No	N/A
55. Is there at least 2 feet of clearance on outbord edges used for passageways? (19.B.3)			
56. Is the vessel equipped with at least one portable or permanent ladder with at least one portable or permanent ladder with which to rescue a person in the water? (19.B.04)			
57. Are there at least 2 means of escape from all assembly, sleeping and messing areas on the plant? (19.B.04)			
58. Are all means of access maintained safe and functional? (19.B.04)			
59. Are all floating pipelines used as walkways equipped with a walkway which is at least 20" wide and has a handrail on at least one side? (19.B.05)			
60. Are floating pipelines that are not intended as walkways barricaded on both ends?(19B.05)			
61. Are positive measures taken to raise and secure the ladder and to block suction and discharge lines during maintenance on pumps and suction or discharge lines? (19.D.01)			
62. Do floating or trestle supported dredge pipelines display the following lights at night and in periods of restricted visibility: (19.D.02) a. One row of yellow lights that : (1) flash 50-70 times per minute? (2) are visible all around the horizon? (3) are visible for at least 2 miles on a clear night? (4) are between 3-10 feet above the water? (5) are approximately evenly spaced? (6) are not more than 30 feet apart where the pipeline crosses a navigable channel? (7) are sufficient in number to clearly show the pipeline's length and course? b. two red lights at each end of the pipeline (including ends in a channel where the pipeline is separated to allow vessels to pass) that: (1) are visible all around the horizon? (2) are visible for at least 2 miles on a clear dark night? (3) are 3 feet apart in a vertical line with the lower light at the same height above the water as the flashing yellow light?			

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	Yes	No	N/A
63. Is the dredge designed such that a failure or rupture of any dredge pump component including the pipe shall not cause the dredge to sink? (19.D.04)			
64. Is submerged pipeline resting on the bottom where it crosses the navigation channel and is it and the anchoring system no higher than the required project depth? (19.D.03)			
65. Is buoyant or semi-buoyant pipeline fully submerged and on the bottom? (19.D.03)			
66. Is raised pipeline adequately marked? (19.D.03)			
67. Is a bilge alarm or shutdown interface available on any dredge with the dredge pump below the waterline? (19.D.07)			
68. Are two positive means available to secure "stone boxes" when the boxes are under positive pressure? (19.D.08)			
69. Remarks: (Enter actions taken for "no" answers.)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

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SAFETY CHECKLIST FOR LAUNCHES, MOTORBOATS AND SKIFFS

Contract # and title:			
Contractor:	Subcontractor:		
Name of equipment:	Superintendent:		
	Yes	No	N/A
1. Is a qualified crew person assigned to assist with deck duties under the following circumstances: (19.C.01) a. when extended trips (more than 2 hours) are made from the work site? b. when conditions of navigation make it hazardous for an operator to leave the wheel while underway? c. when operation other than tying-in require the handling of lines? d. when operating at night or in inclement weather? e. when towing?			
2. Are all motorboats, launches and skiffs posted with the number of passengers and weight they can carry? (19.C.02)			
3. Is there a PFD available for each passenger and crew member? (19.C.02)			
4. Do all launches and motorboats that are less than 26 feet in length have at least one 1A-10B:C fire extinguisher on board? (19.C.03)			
5. Do all launches and motorboats that are 26 feet or more in length have at least 2 1A-10B:C fire extinguishers on board? (19.C.03)			

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	Yes	No	N/A
<p>6. Do all launches and motorboats that have gasoline or liquid petroleum gas power plants or equipment in cabins, compartments, or confined spaces have built-in automatic CO2 or other equally effective type of fire extinguishing system? (19.C.03)</p>			
<p>7. Remarks: (Enter actions taken for "no" answers.)</p>			
<p>Contractor inspector signature</p>			
<p>Contractor QC/safety officer/project manager signature</p>			

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SAFETY CHECKLIST FOR CRAWLER, TRUCK & WHEEL MOUNTED CRANES

Contract # and title:				
Equipment name & number: owned or leased?				
Contractor:		Subcontractor:		
Contract Inspector:		Date inspected:		
		Yes	No	N/A
1. Unless the manufacture has specified an on-rubber rating, outriggers will be fully extended and down? (16.D.10)				
2. Are lattice boom cranes equipped with a boom angle indicator, load indicating device, or a load moment indicator? (16.D.01)				
3. Are lattice boom and hydraulic cranes equipped with a means for the operator to visually determine levelness? (16.D.02)				
4. Are lattice boom and hydraulic cranes, except articulating booms cranes, equipped with drum rotation indicators located for use for the operator? (16.D.03)				
5. Are lattice boom and hydraulic mobile cranes equipped with a boom angle or radius indicator within the operator's view? (16.D.04)				
6. Are lattice boom cranes, with exception of duty cycle cranes, equipped with an anti-two blocking device? (16.D.05)				
7. When duty cycle machines are required to make a non-duty lift, is the crane equipped with an international orange warning device and is a signal person present? (16.D 05)				
8. Are the following with the crane at all times: (16.C.02)				
a. the manufacturer's operating manual?				
b. the load rating chart?				
c. the crane's log book documenting use, maintenance, inspections and tests?				
d. operating manual for crane operator aids used on the crane.				

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	Yes	No	N/A
9. Are the following on the project site: a. completed periodic inspection report prior to initial work? (16.C.12) b. pre-operational checklist used for daily inspection? (16.C.12) c. written reports of the operational performance test? (16.C.13) d. written reports of the load performance test? (16.C.13)			
10. Are all operators physically qualified to perform work? (16.C.05)			
11. Are all operators qualified by written and practical exam or by appropriate licensing agency for the type crane they are to operate? (16.C.05)			
12. Is the crane designed and constructed IAW the standards listed in Table 16-1? (16.C.06)			
13. Is a hazard analysis for set-up and set-down available? (16.C.08)			
14. Are accessible areas within the swing radius of the rear of the crane barricaded? (16.C.09)			
15. Are there at least 3 wraps of cable on the drum? (16.C.10)			
16. Are the hoisting ropes installed IAW the manufacturer's recommendations? (16.C.10)			
17. Are critical lift plans available? (16.C.18)			
18. Are minimum clearance distance for high voltage lines posted at the operator's position? (11.E.04)			
19. Do older lattice boom cranes with anti-two block warning devices in lieu of anti-two block prevention devices have a written exemption? (16.D.05)			
20. Is the slow moving emblem used on all vehicles which by design move at 25 MPH or less on public roads? (08.A.04)			
21. Are all vehicles which will be parked or moving slower than normal traffic on haul roads equipped with a yellow flashing light or flasher visible from all directions? (16.A.13)			

	Yes	No	N/A
22. Is all equipment to be operated on public roads provided with: (16A.07) a. headlights? b. brake lights? c. taillights? d. back-up lights? e. front and rear turn signals?			
23. Are seat and seat belts provided for the operator and each rider on equipment? (16.A.07 and 16.B.08)			
24. Is all equipment with windshields equipped with powered wipers and defogging or defrosting devices? (16.A.07)			
25. Is the glass in the windshield or other windows clear and unbroken to provide adequate protection and visibility for the operator? (16.A.07, 16.B.10)			
26. Is all equipment equipped with adequate service brake system and emergency brake system? (16.A.18)			
27. Are areas on equipment where employees walk or climb equipped with platforms, footwalks, steps, handholds, guardrails, toeboards and non-slip surfaces? (16.B.03)			
28. Is all self propelled equipment equipped with automatic, audible, reverse signal alarms? (16.B.01)			
29. Is there a record of manufacturer's approval of any modification of equipment which affects its capacity or safe operation? (16.A.18)			
30. Are truck and crawler cranes attached to a barge or pontoon by a slack tiedown system? (16.F.06)			
31. Have the following conditions been met for land cranes mounted on barges or pontoons: (16.F.04) a. Have load ratings been modified to reflect the increased loading from list, trim, wave, and wind action? b. Are all deck surfaces above the water? c. Is the entire bottom area of the barge or pontoon submerged? d. Are tie downs available? e. Are cranes blocked and secured?			
32. Are all belts, gears, shafts, spindles, drums, flywheels, or other rotating parts of equipment guarded where is a potential for exposure to workers? (16.B.03)			

	Yes	No	N/A
33. Is the area where the crane is to work level, firm and secured? (16.A.10)			
34. Is a dry chemical or carbon dioxide fire extinguisher rated at least 5-B:C on the crane? (16.A.26)			
35. Are trucks, for truck mounted cranes, equipped with a working reverse signal alarm? (16.B.01)			
36. Is a signal person provided where there is danger from swinging loads, buckets, booms, etc.? (16.B.13)			
37. Is there adequate clearance from overhead structures and electrical sources for the crane to be operated safely? (16.C.09)			
38. Is there adequate lighting for night operations? (16.C.19)			
39. Has the the boom stop test on cable-supported booms been performed? (16.D.06)			
40. Is the boom disengaging device functioning as required? (16.D.06)			
41. Has all rigging and wire rope been inspected? (Section 15)			
Remarks:(Enter actions taken for all "no" answers.)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAFETY CHECKLIST FOR PORTAL, TOWER, AND PILLAR CRANES

Contract # and Title:					
Equipment name & number: owned or leased?					
Contractor:		Subcontractor:			
Contract Inspector:		Date Inspected:			
			Yes	No	N/A
1. Are the following available: (16.E.02)					
a. written erection instructions?					
b. listing of the weight of each component?					
c. an activity hazard analysis for the erection?					
d. does the activity hazard analysis contain					
(1.) location of crane and adjacent structures?					
(2.) foundation design and construction requirements?					
(3.) clearance and bracing requirements?					
2. Is there a boom angle indicator within the operator's view? (16.E.04)					
3. Are luffing jib cranes equipped with: (16.E.05)					
a. shock absorbing jib stops?					
b. jib hoist limit switch?					
c. jib angle indicator visible to operator?					
4. If used, do rail clamps have slack between the point of attachment to the rail and the end fastened to the crane? (16E.06)					
5. Are the following with the crane at all times: (16.C.02)					
a. the manufacturer's operating manual?					
b. the load rating chart?					
c. the crane's log book documenting use, maintenance, inspections and tests?					
d. the operating manual for crane operational aids used on the crane?					

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	Yes	No	N/A
6. Are the following on the project site: a. completed periodic inspection report prior to initial work? (16.C.12) b. pre-operational checklist used for daily inspections? (16.C.12) c. written reports of the operational performance tests? (16.C.13) d. written reports of the load performance tests? (16.C.13)			
7. Is every crane operator certified by a physician to be physically qualified to perform work? (16.C.05)			
8. Are all operators qualified by written and practical exam or by appropriate licensing agency for the type crane they are to operate? (16.C.05)			
9. Is the crane designed and constructed IAW the standards listed in Table 16-1? (16.C.05)			
10. Is a hazard analysis for set-up and set-down available? (16.C.08)			
11. Are there at least 3 wraps of cable on the drum? (16.C.10)			
12. Are the hoisting ropes installed IAW the manufacturer's recommendations? (16.C.10)			
13. Is there a record of manufacturer's approval of any modification of equipment which affects its capacity or safe operation? (16.A.07)			
14. Remarks: (Enter actions taken)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

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	Yes	No	N/A
<p>f. Do all eye splices have at least 5 full tucks?</p> <p>g. If used, are wedge sockets fastening attached without attached the dead end of the wire rope to the live rope?</p> <p>h. Are they free of eyes or splices formed by wire rope clips or knots?</p>			
<p>9. Are the following conditions met for chain? (15.C.01-04)</p> <p>a. Are all chains alloyed?</p> <p>b. Do all coupling links or other attachments have rated capacities at least equal to that of the chain.</p> <p>c. Are makeshift fasteners restricted from use?</p>			
<p>10. Are the following conditions met for fiber rope:(15.D.01-07)</p> <p>a. Are all ropes protected from freezing, excessive heat or corrosive materials?</p> <p>b. Are all ropes protected from abrasion?</p> <p>c. Are splices made IAW manufacture's recommendations?</p> <p>d. Do all eye splices in manila rope contain at least 3 full tucks and do all short splices contain at least 6 full tucks(3 on each side of the centerline of the splice)?</p> <p>e. Do all splices in layed synthetic fiber rope contain at least 4 full tucks and do short splices contain at least 8 full tucks (4 on each side of the centerline of the splice)?</p> <p>f. Do the tails of fiber rope splices extend at least 6 rope diameters (for rope 1" diameter or greater) past the last full tuck?</p> <p>g. Are all eye splices large enough to provide an included angle of not greater than 60* at the splice when the eye is placed over the load or support?</p>			
<p>11. Are the following conditions met for all slings:(15.E.01-06)</p> <p>a. Is protection provided between the sling and sharp surfaces?</p> <p>b. Do all rope slings have minimum clear length of 40 times the diameter of component ropes between each end fitting or eye splice?</p> <p>c. Do all braided slings have a minimum clear length of 40 times the diameter of component ropes between each end fitting or eye splice?</p>			

	Yes	No	N/A
d. Do all welded alloy steel chain slings have affixed permanent identification stating size, grade, rated capacity and manufacturer? e. Is each synthetic web sling marked or coded to identify its manufacturer, rated capacities for each type hitch and the type material?			
12. Are drums, sheaves, and pulley smooth and free of surface defects? (15.F.01)			
13. Is the ratio of the diameter of the rigging and the drum, block sheave or pulley thread diameter such that the rigging will adjust without excessive wear, deformation, or damage? (15F.02)			
14. Have all damaged drums, sheaves and pulleys been removed from service? (15.F.04)			
15. Are all connections, fittings, fastenings, and attachments of good quality, proper size and strength, and installed IAW manufacturer's recommendations? (15.F.05)			
16. Are all shackles and hooks sized properly? (15.F.06 & .07)			
17. Are hoisting hooks rated at 10 tons or greater provided with safe handling means? (15.F.07)			
18. Do all drums have sufficient rope capacity? (15.F.08)			
19. Is the drum end of the rope anchored by a clamp securely attached to the drum in a manner approved by the manufacturer? (15.F.08)			
20. Do grooved drums have the correct groove pitch for the diameter of the rope and is the groove depth correct? (15.F.08)			
21. Do the flanges on grooved drums project beyond the last layer of rope at a distance of either 2" or twice the diameter of the rope, whichever is greater? (15.F.08)			
22. Do the flanges on ungrooved drums project beyond the last layer of rope a distance of either 2.5" or twice the diameter of the rope, which ever is greater.			

	Yes	No	N/A
23. Are the sheaves compatible with the size of rope used and as specified by the manufacture? (15F.09)			
24. Are sheaves properly aligned, lubricated, and in good condition? (15.F.09)			
25. When rope is subject to riding or jumping off a sheave, are sheaves equipped with cablekeepers? (15.F.09)			
26. Are eye bolts loaded in the plane of the eye and at angles less than 45* to the horizontal? (15.F.10)			
27. Remarks: (Enter actions taken for "no" answers.)			
Contractor inspector signature			
Contractor QC/safety/project manager signature			

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	Yes	No	N/A
6. Is all the glass safety glass and is all broken or cracked glass replace? (18.A.07)			
7. Do trailers meet the following: (18A.08) a. Are all towing devices adequate for the weight drawn? b. Are all towing devices properly mounted? c. Are locking devices or a double safety system provided on every 5th wheel mechanism and tow bar arrangement to prevent accidental separation? d. Are trailers coupled with safety chains or cables to the towing vehicle? e. Are trailers equipped with the power brakes equipped with a break-away device which will lock-up the brakes in the event the trailer separates from the towing vehicle?			
8. Are all dump trucks:(18.A.10) a. equipped with a holding device to prevent accidental lowering of the body? b. equipped with a hoist lever secured to prevent accidental starting or tipping? c. equipped with means to determine (from the operator's position) if the dump box is lowered? d. equipped with trip handles for tailgates that allow the operator to be clear?			
9. Are all buses, trucks and combination of vehicles with a carrying capacity of 1.5 tons or more, to be operated on public roads equipped with: (18.A.11) a. 3 reflective markers? b. 2 wheel chocks for each vehicle? c. at least one 2A:10B:C fire extinguisher? d. at least two properly rated fire extinguishers (for vehicles carrying flammable cargo)? e. a red flag not less than 1 foot square.			
10. Is vehicle exhaust controlled so as not to present a hazard to personnel? (18.A.13)			
11. Are all rubber tired motor vehicles equipped with fenders or with mud flaps if the vehicle is not designed for fenders? (18.A.14)			

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	Yes	No	N/A
12. Are all vehicles, except buses, equipped with seat belts? (18.B.02)			
13. Does all self-propelled construction and industrial equipment have a working reverse signal alarm? (16.B.01)			
14. Are all hot surfaces of equipment, including exhaust pipes or other lines, guarded or insulated to prevent injury or fire? (16.B.03)			
15. If an off the road vehicle, is it equipped with rollover protective structures? (16.B.12)			
16. Remarks: (Enter actions taken for "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

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SAFETY CHECKLIST FOR CRAWLER TRACTORS AND DOZERS

Contract # and title:			
Equipment name & number: owned or leased?			
Contractor:		Subcontractor:	
Contractor inspector:		Date inspected:	
	Yes	No	N/A
1. Are initial and daily/shift inspection records available? (16.A.01& .02)			
2. Are only qualified operators assigned to operate mechanized equipment? (16.A.04)			
3. Are sufficient lights provided for night operations? (16.A.11)			
4. Is the unit shut down before refueling? (16.A.14)			
5. Does the unit have as a minimum a 5-B:C fire extinguisher? (16.A.26)			
6. Is there an effective, working reverse alarm? (16.B.01)			
7. Are moving parts, shafts, sprockets, belts, etc., guarded? (16.B.03 ,07, and 13)			
8. Is protections against hot surfaces, exhausts, etc., provided? (16.B.03 and .13)			
9. Are fuel tanks located in a manner to prevent spills or overflows from running onto engine exhaust or electrical equipment?			

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	Yes	No	N/A
10. Are exhaust discharges directed so they do not endanger person or obstruct operator vision?(16.B.05)			
11. Are seat belts provided? (16B.08)			
12. Is protection (grills, canopies, screens) provided to shield operator from falling or flying objects? (16.B.10 and .11)			
13. Is roll over protection provided? (16.B.12)			
14. Remarks: (Enter actions taken for "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAFETY CHECKLIST FOR SCRAPERS, MOTOR GRADERS, AND OTHER MOBILE EQUIPMENT

Contract # and title:			
Equipment name and number: owned or leased?			
Contractor:		Subcontractor:	
Contractor inspector:		Date inspected:	
	Yes	No	N/A
1. Are initial and daily/shift inspection records available? (16.A.01 & .02)			
2. Are only qualified operators assigned to operate equipment? (16.A.04)			
3. Are sufficient lights provided for night operations? (16.A.11)			
4. Does the unit have as a minimum a 5-B:C fire extinguisher? (16.A.26)			
5. Is there an effective working reverse alarm? (16.B.01)			
6. Is the unit shut down for refueling? (16.A.14)			
7. Are moving parts, shafts, sprockets, belts, etc., guarded? (16.B.03, .07 and .13)			
8. Is protection against hot surfaces, exhausts, etc., provided? (16.B.03 and .13)			
9. Are fuel tanks located in a manner to prevent spills or overflow from running onto engine exhaust or electrical equipment? (16.B.04)			
10. Are exhaust discharges directed so they do not endanger persons or obstruct operator vision? (16.B.05)			

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	Yes	No	N/A
11. Are seat belts provided for each person required to ride on the equipment? (16.B.08)			
12. Is protection (grills, canopies, screens) provided to shield operators from falling or flying objects? (16.B.10 and .11)			
13. Is roll over protection provided? (16.B.12)			
14. Is a safe means of access to the cab provided (steps, grab bars, non-slip surfaces)? (16.B.03)_			
15. Are adequate head and tail lights provided? (16.A.07)			
16. Have brakes been tested and found satisfactory? (16.A.07)			
17. Does the unit have an emergency brake which will automatically stop the equipment upon brake failure? Is this system manually operable from the drivers position? (16.A.07)			
18. Is all equipment with windshields equipped with powered wipers and defogging or defrosting system? (16.A.07)			
19. Are all vehicles which will be parked or moving slower than normal traffic on haul roads equipped with a yellow flashing light or flasher visible from all directions? (16.A.13)			
20. Is the slow moving emblem used on all vehicles which by design move at 25 MPH or less on public roads? (08A.04)			

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	Yes	No	N/A
21. Have air tanks been tested and certified? (20.A.01)			
22. Is an air pressure gage in working condition installed on the unit? (20.A.12)			
23. Does the air tank have an accessible drain valve? (20.B.17)			
24. Remarks: (Enter action taken for all "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager			

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SAFETY CHECKLIST FOR MATERIAL HOISTS

Contract # and title:			
Equipment name & number:			
Contractor:		Subcontractor:	
Contract Inspector:		Date inspected:	
	Yes	No	N/A
1. Are all hoist towers, masts, guys or braces, counterweights, drive machinery supports, sheave supports, platforms, supporting structures, and accessories designed by a licensed engineer? (16.K.02)			
2. Is a copy of the hoist operating manual available? (16.K.04)			
3. Do all floors and platforms have slip-resistant surfaces? (16.K.08)			
4. Are landings and runways adequately barricaded and is overhead protection provided where needed? (16.K.08)			
5. Are hoisting ropes installed IAW manufacturer's instructions? (16.K.10)			
6. Are operating rules posted at the hoist operator's station? (16.K.14)			
7. Are air powered hoists connected to an air supply of sufficient capacity and pressure to safely operate the hoist? (16.K.15)			
8. Are pneumatic hoses secured by some positive means to prevent accidental disconnection? (16.K.15)			
9. Remarks: (Enter actions taken for all "no" answers.)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAD Form 1666g-R Previous editions may be used for contracts referencing the Mar 97 1992 edition of EM 385-1-1.

SAFETY CHECKLIST FOR EARTH DRILLING EQUIPMENT

Contract # and title:			
Equipment name & number:			
Contractor:		Subcontractor:	
Contractor inspector:		Date inspected:	
	Yes	No	N/A
1. Is a copy of the manual for all drilling equipment available? (16.M.01)			
2. Have all overhead electrical hazards and potential ground hazards been identified in a site layout plan and addressed in an activity hazard analysis? (16.M.02)			
3. Are MSDSs for all drilling fluids available? (16.M.05)			
4. Does the drilling equipment have 2 easily accessible emergency shut down devices (one for the operator and one for the helper)? (16.M.06)			
5. Is the equipment posted with a warning of electrical hazards? (16.M.06)			
6. Is there a spotter or an electrical proximity warning device available to ensure safe distances from power lines are maintained? (16.M.06)			
7. Remarks: (Enter actions taken for "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager			

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INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A --	Approved as submitted.	E --	Disapproved (See attached).
B --	Approved, except as noted on drawings.	F --	Receipt acknowledged.
C --	Approved, except as noted on drawings. Refer to attached sheet resubmission required.	FX --	Receipt acknowledged, does not comply as noted with contract requirements.
D --	Will be returned by separate correspondence.	G --	Other (<i>Specify</i>)

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity 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 covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individuals(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

**DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET**

Approved by OM
0348-0046

Reporting Entity: _____ Page _____ of _____

General Decision Number: SC030036 11/07/2003
 Superseded General Decision Number: SC020036

State: South Carolina

Construction Types: Heavy Dredging

DREDGING

Counties: South Carolina Statewide.

STATEWIDE

DREDGING

Modification Number Publication Date

0 06/13/2003

1 11/07/2003

ENGI0025-002 02/01/2003

DREDGING

STATEWIDE

	Rates	Fringes
Clamshell Dredges		
Deckhand.....	\$ 11.93	3.61+a
Engineer.....	\$ 17.71	4.01+a
Handyman.....	\$ 11.93	3.61+a
Mate.....	\$ 15.91	3.81+a
Oiler.....	\$ 12.75	3.61+a
Operator.....	\$ 19.80	4.01+a
Scowman.....	\$ 12.10	3.61+a
Welder.....	\$ 16.52	3.81+a
Dipper Dredges		
Deckhand.....	\$ 11.93	3.61+a
Engineer.....	\$ 18.54	4.01+a
Handyman.....	\$ 11.93	3.61+a
Mate.....	\$ 16.25	3.81+a
Oiler.....	\$ 12.75	3.61+a
Operator.....	\$ 19.99	4.01+a
Scowman.....	\$ 12.10	3.61+a
Welder.....	\$ 16.79	3.81+a
Drill Boats		
Blaster.....	\$ 18.03	4.01+a
Driller.....	\$ 18.03	4.01+a
Engineer.....	\$ 18.72	4.01+a
Hydraulic Dredges 20" & Over		
Asst. Fill Placer.....	\$ 15.71	4.01+a
Carpenter.....	\$ 17.27	4.01+a
Deckhand.....	\$ 11.93	3.61+a
Derrick Operator.....	\$ 17.37	4.01+a
Electrician.....	\$ 17.70	4.01+a
Engineer.....	\$ 18.72	4.01+a
Fill Placer.....	\$ 17.27	4.01+a
Handyman.....	\$ 11.93	3.61+a
Leverman.....	\$ 19.90	4.01+a
Mate.....	\$ 16.25	3.81+a
Oiler.....	\$ 12.75	3.61+a
Shoreman.....	\$ 11.70	3.61+a
Spill Barge Operator.....	\$ 17.03	3.81+a
Welder.....	\$ 16.79	3.81+a
Hydraulic Dredges Under 20"		
Cook.....	\$ 8.11	1.73+b
Deckhand.....	\$ 7.77	1.73+b
Engineer.....	\$ 9.59	1.73+b
Launchman.....	\$ 8.19	1.73+b
Leverman.....	\$ 10.03	1.73+b
Mate.....	\$ 8.82	1.73+b

Mess Cook.....	\$ 7.71	1.73+b
Messman & Janitor.....	\$ 7.53	1.73+b
Oiler & Fireman.....	\$ 8.11	1.73+b
Shoreman.....	\$ 7.82	1.73+b
Spider Barge Operator.....	\$ 8.68	1.73+b
Spill Barge Operator.....	\$ 8.68	1.73+b
Welder.....	\$ 9.79	1.73+b
Steward Department		
2nd Cook.....	\$ 11.93	3.61+a
Janitor.....	\$ 11.93	3.61+a
Messman.....	\$ 11.70	3.61+a
Night Cook.....	\$ 11.93	3.61+a
Steward.....	\$ 13.14	3.81+a
Tugs 600 HP to 1350 HP		
Tug Captain.....	\$ 15.53	4.01+a
Tug Deckhand.....	\$ 11.93	3.61+a
Tug Master.....	\$ 16.87	4.01+a
Tugs Greater Than 1350 HP		
Tug Captain.....	\$ 17.02	4.01+a
Tug Deckhand.....	\$ 11.93	3.61+a
Tug Engineer.....	\$ 17.02	4.01+a
Tug Master.....	\$ 17.95	4.01+a
Tugs Less Than 600 HP		
Tug Captain.....	\$ 15.37	4.01+a
Tug Deckhand.....	\$ 11.93	3.61+a
Tug Master.....	\$ 15.88	4.01+a

FOOTNOTE:

- a. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and Good Friday. Plus Vacation Contribution of 7% of straight time pay for all hours worked.
- b. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day. Plus Vacation Contribution of 7% of stright time pay for all hours worked.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====
END OF GENERAL DECISION

CONSOLIDATED REPORT – DREDGING

TITLE: Maintenance Dredging In Atlantic Intracoastal Waterway, Charleston to Port Royal, Charleston County, South Carolina

IFB No. W912HP-04-B-0003 Contract No. W912HP-04-C-00 ____

Drawing Nos. Contract: 8969; BD Survey: 8970; AD Survey: 8971

Government Inspector:

Contractor:

Contractor's Superintendent:

Type Equipment Used On Job:

Dredge(s): (Name, Size, Pump Hp, Booster, Etc.)

Other Equipment: (Draglines, Dozers, Etc.)

Subcontractors:

Dates:

Advertisement:

Award:

Bid Opening:

Notice To Proceed:

Required Starting:

Required Completion Date:

Actual Starting:

Actual Completion:

Numbers Days On Job (Pumping):

Numbers Days On Job (Total):

Dredging Quantities:

Required Production Rate:

Actual Production Rate:

Character Of Materials:

Note: Hard material or any change of conditions should be noted. Any debris encountered should also be listed with explanation of how it was removed and what equip was used for removal.

CONSOLIDATED REPORT – DREDGING

TITLE: Maintenance Dredging In Atlantic Intracoastal Waterway, Charleston to Port Royal, Charleston County, South Carolina, IFB No. W912HP-04-B-0003

TABLE 1 – ADVERTISED QUANTITIES				
Shoal Number	Location	^{1,2} Required Dredging Prism Cy. Pl. Meas.	^{1,3} Allowable Overdepth Prism Cy. Pl. Meas.	Total C.Y. Pl. Meas.
4	Sta. 1454+00 to Sta. 1518+00	116,500	53,700	170,200
7	Sta. 1715 +00 to Sta. 1766+00	27,500	33,000	60,500
8	Sta. 1766+00 to Sta. 1808+00	51,700	34,800	86,500
9	Sta. 1808+00 to Sta. 1852+00	52,200	34,400	86,600
Totals		247,900	155,900	403,800

TABLE 2 – BEFORE DREDGING QUANTITIES				
Shoal Number	Location	^{1,2} Required Dredging Prism Cy. Pl. Meas.	^{1,3} Allowable Overdepth Prism Cy. Pl. Meas.	Total C.Y. Pl. Meas.
4	Sta. 1454+00 to Sta. 1518+00			
7	Sta. 1715 +00 to Sta. 1766+00			
8	Sta. 1766+00 to Sta. 1808+00			
9	Sta. 1808+00 to Sta. 1852+00			
Totals				

TABLE 3 – AFTER DREDGING QUANTITIES				
Shoal Number	Location	^{1,2} Required Dredging Prism Cy. Pl. Meas.	^{1,3} Allowable Overdepth Prism Cy. Pl. Meas.	Total C.Y. Pl. Meas.
4	Sta. 1454+00 to Sta. 1518+00			
7	Sta. 1715 +00 to Sta. 1766+00			
8	Sta. 1766+00 to Sta. 1808+00			
9	Sta. 1808+00 to Sta. 1852+00			
Totals				

CONSOLIDATED REPORT – DREDGING

TITLE: Maintenance Dredging In Atlantic Intracoastal Waterway, Charleston to Port Royal, Charleston County, South Carolina, IFB No. W912HP-04-B-0003

Effective And Non-Effective Time:

Name of Dredge:

Pumping (Working):

Turn:

Sail:

Discharge:

Conn:

Disconn:

Cycle:

Clearing Cutter:

Changing Location on Job:

Passing Vessels:

Minor Repair:

Preparation:

Miscellaneous:

Mobilization and Demobilization:

Private Work:

Sundays and Holidays:

Major Repairs:

Lost Time:

Lost Time not Chargeable to Cost at Work:

Total Time:

Averages:

Width of Cut:

Number of Loads Per Day:

Cu. Yds Pumped/Hour - Credit:

Cu. Yds Pumped/Day - Credit:

Pumping Time - Hours Per Day

Lift:

Cubic Yards Per Load:

Cu. Yds Pumped/Hour - Gross:

Cu. Yds Pumped/Day - Gross:

Time Delays and Causes of such Delays:

Disposal Area(s): (For Each Disposal Area)

Disposal Area:

Total Gross Cu. Yds Placed in the Disposal Area:

Location:

Remarks:

Water Quality:

Note: Documentation Should List All Efforts Made To Insure Water Quality Has Been Maintained And Any Problems That Were Encountered.

Other - Explain:

Remarks, Comments, And Lessons Learned:

CONSOLIDATED REPORT – DREDGING

TITLE: Maintenance Dredging In Atlantic Intracoastal Waterway, Charleston to Port Royal, Charleston County, South Carolina, IFB No. W912HP-04-B-0003

Costs/Prices:

ORIGINAL CONTRACT PRICE:

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ESIMATED QUANTITY</u>	<u>U/I</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
0001	Mobilization and demobilization for maintenance dredging in AIWW Charleston to Port Royal, Shoals 4, 7, 8, and 9	1		Lump Sum	\$ _____
0002	Maintenance Dredging of unclassified material in AIWW Charleston to Port Royal, Shoal 4	170,200	CY	\$ _____	\$ _____
0003	Maintenance Dredging of unclassified material in AIWW Charleston to Port Royal, Shoals 7, 8, and 9	233,600	CY	\$ _____	\$ _____
TOTAL – ORIGINAL CONTRACT PRICE					\$ _____

ACTUAL CONTRACT PRICE :

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ESIMATED QUANTITY</u>	<u>U/I</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
0001	Mobilization and demobilization for maintenance dredging in AIWW Charleston to Port Royal, Shoals 4, 7, 8, and 9	1		Lump Sum	\$ _____
0002	Maintenance Dredging of unclassified material in AIWW Charleston to Port Royal, Shoal 4	170,200	CY	\$ _____	\$ _____
0003	Maintenance Dredging of unclassified material in AIWW Charleston to Port Royal, Shoals 5, 6, 7, 8, and 9	233,600	CY	\$ _____	\$ _____
TOTAL - ACTUAL CONTRACT PRICE					\$ _____

CONSOLIDATED REPORT – DREDGING

TITLE: Maintenance Dredging In Atlantic Intracoastal Waterway, Charleston to Port Royal, Charleston County, South Carolina, IFB No. W912HP-04-B-0003

Modifications:

Mod 1: (Brief Description)

Mod 2: (Brief Description)

Claims:

Claim 1: (Brief Description)

Claim 2: (Brief Description)

Additional Costs:

(Note: Include All Other Costs Not Listed Above)

