Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

**RETURN BIDS TO:**
**RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des soumissions - TPSGC**
**11 Laurier St. / 11, rue Laurier**
**Place du Portage , Phase III**
**Core 0B2 / Noyau 0B2**
**Gatineau, Québec K1A 0S5**
**Bid Fax: (819) 997-9776**

# INVITATION TO TENDER
# APPEL D'OFFRES

**Tender To: Public Works and Government Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Soumission aux: Travaux Publics et Services Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

**Title - Sujet**
CCGS C. TEATHER/C. CARRIERE DRYDOCK

| Solicitation No. - N° de l'invitation | Date |
|---|---|
| F2599-150105/A | 2016-02-04 |
| **Client Reference No. - N° de référence du client** | **GETS Ref. No. - N° de réf. de SEAG** |
| F2599-150105 | PW-$$MD-034-25660 |
| **File No. - N° de dossier** | **CCC No./N° CCC - FMS No./N° VME** |
| 034md.F2599-150105 | |

**Solicitation Closes - L'invitation prend fin**
**at - à 02:00 PM**
**on - le 2016-03-01**

**Time Zone**
**Fuseau horaire**
Eastern Standard Time
EST

**F.O.B. - F.A.B.**
**Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐

| Address Enquiries to: - Adresser toutes questions à: | Buyer Id - Id de l'acheteur |
|---|---|
| Green, Dave | 034md |
| **Telephone No. - N° de téléphone** | **FAX No. - N° de FAX** |
| (819) 956-0654 ( ) | (819) 956-0897 |

**Destination - of Goods, Services, and Construction:**
**Destination - des biens, services et construction:**

Specified Herein
Précisé dans les présentes

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**
**Raison sociale et adresse du fournisseur/de l'entrepreneur**

| Delivery Required - Livraison exigée | Delivery Offered - Livraison proposée |
|---|---|
| See Herein | |

**Vendor/Firm Name and Address**
**Raison sociale et adresse du fournisseur/de l'entrepreneur**

**Telephone No. - N° de téléphone**
**Facsimile No. - N° de télécopieur**

**Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)**
**Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)**

**Signature** **Date**

**Issuing Office - Bureau de distribution**
Ship Refits and Conversions / Radoubss et modifications de navires and / et
11 Laurier St. / 11, rue Laurier
6C2, Place du Portage
Gatineau, Québec K1A 0S5

Canada

# Invitation to Tender
# (ITT)

TABLE OF CONTENTS

## PART 1 - GENERAL INFORMATION

### 1.1 Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

Part 1 General Information: provides a general description of the requirement;

Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;

Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;

Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, if applicable, and the basis of selection;

Part 5 Certifications: includes the certifications to be provided;

Part 6 Financial and Other Requirements: includes specific requirements that must be addressed by bidders; and

Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, the Basis of Payment, the Federal Contractors Program for Employment Equity - Certification, the Insurance Requirements and any other Annexes.

### 1.2 Summary

(a) The requirement is:

i. To carry out the dry docking inspection, repair and maintenance of the Canadian Coast Guard Vessels CCGS Carriere and CCGS Teather in accordance with Annex A – Statement of Work and any associated technical information.

ii. To carry out Unscheduled Work authorized by the Contracting Authority.

(b) As per the Integrity Provisions under section 01 of Standard Instructions 2003 bidders must provide a list of all owners and/or Directors and other associated information as required. Refer to section 4.21 of the Supply Manual for additional information on the Integrity Provisions.

(c) The requirement is exempt from the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), Annex 4 and the North American Free Trade Agreement (NAFTA), Chapter 10, Annex 1001.2b, Paragraph 1(a).

The requirement is subject to the Agreement on Internal Trade (AIT). The sourcing strategy relating to this procurement will be limited to suppliers from Eastern Canada, in accordance with the Shipbuilding, Refit, Repair and Modernization Policy (2010-08-16).

(d) The Federal Contractors Program (FCP) for employment equity applies to this procurement; see Part 5 - Certifications, Part 7 - Resulting Contract Clauses and the annex titled Federal Contractors Program for Employment Equity - Certification.

### 1.3 Work Period - Marine

| | |
|---|---|
| Commencement: | April 1, 2016 (or Earlier) |
| Completion: | 14 days for each vessel after arrival at contractor's facilities. |
| Note: | Both vessels must be completed concurrently or in immediate succession |

### 1.4 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada (PWGSC). Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The SACC 2003 (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

### 2.2 Submission of Bids

Bids must be submitted only to PWGSC Bid Receiving Unit by the date, time and place designated on the front page Invitation to Tender (ITT) of the bid solicitation.

### 2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority (CA) no later than five (5) working days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as “proprietary” will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

Any clarifications or changes to the bid solicitation resulting from questions and answers will be included as an amendment to the solicitation.

### 2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

**Refer to Annex "J1" for Deliverables/Certifications.**

### 2.5 Optional Site Visit – Vessel

It is recommended that the Bidder or a representative of the Bidder visit the work site. Arrangements have been made for the site visit to be held on February 17, 2016 at 10:00am at the Canadian Coast Guard Base, Canadian Center for Inland Waters, 867 Lakeshore Road Burlington, Ontario L7S 1A1. All visitors have to report to the Main Entrance, where they will sign in.

Contractors may park in the parking lots located at the front of the building. All Contractors must have valid identification to sign in at the Canadian Center for Inland Waters building main entrance, reception desk.

Bidders are requested to communicate with the Contracting Authority (CA) no later than three (3) business days prior to the site visit date to confirm attendance and provide the name(s) of the person(s) who will attend. Bidders may be requested to sign an attendance sheet. Bidders who do not attend or do not send a representative will not be given an alternative appointment but they will not be precluded from submitting a bid. Any clarifications or changes to the bid solicitation resulting from the site visit will be included as an amendment to the bid solicitation.

### 2.6 Bidders' Conference

A bidder's conference chaired by the Contracting Authority will be held at Canadian Coast Guard Base, Canadian Center for Inland Waters, 867 Lakeshore Road Burlington, Ontario L7S 1A1 on February 17, 2016 at 1:00pm. The scope of the requirement outlined in the solicitation will be reviewed during the conference and questions will be answered. It is recommended that bidders who intend to submit a bid attend or send representation.

Bidders are requested to communicate with the CA before the conference to confirm attendance. Bidders should provide, in writing to the CA, the names of the person(s) who will be attending and a list of issues they wish to table no later than three (3) business days before the scheduled Conference.

Any clarifications or changes to the solicitation resulting from the Bidder's Conference will be included as an amendment to the solicitation. Bidders who do not attend will not be precluded from submitting a bid.

### 2.7 Additional Instructions - Work Period – Marine

By submitting a bid the Bidder certifies that they have sufficient material and human resources allocated or available and that the work period outlined in 1.3 Work Period – Marine is adequate to both complete the known work and absorb a reasonable amount of unscheduled work.

The vessels will be unmanned during the work period and will be considered to be out-of commission. The vessels during that period will be in the care or custody of the Contractor and under its control.

For details please refer to Annex I – Vessel Custody, Appendix 1 and 3 – Acceptance Certificate

Upon acceptance of the Work for this vessel, this vessel will be returned to the care, control and custody of Canada.

For details please refer to Annex I – Vessel Custody, Appendix 2 and 4 – Acceptance Certificate

## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Required Submission Sections

Canada requests that bidders provide their bid in separate sections as follows:

Section I: Technical Bid (1 hard copy)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

### 3.2 Required Submission Information

**Section I: Technical Bid**

The Bidder must provide all of the deliverables as referenced in Annex J – Deliverables / Certifications.

**Section II: Financial Bid**

The Bidder must submit their financial bid in accordance with Annex H – Financial Bid Presentation Sheet and in Annex H - Appendix 1 & 2 – Pricing Data Sheet. The total amount of applicable taxes must be shown

separately. **Section III: Certifications**

The Bidder must submit the certifications required under Part 5.

### 3.3 Submission Format

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

a. use 8.5 x 11 inch (216 mm x 279 mm) paper;
b. use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html). To assist Canada in reaching its objectives, bidders should:

1. use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and

2. use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 4.1 Evaluation Procedures

a. Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

b. An evaluation team composed of representatives of Canada will evaluate the bids.

**Technical Bid**

Notwithstanding deliverable requirements specified within the solicitation and its associated Annex A – Statement of Work, mandatory deliverables that must be submitted with the Bidder's bid to be deemed responsive are summarized in Annex J – Deliverables / Certifications – J1 Mandatory Tender Deliverables Check List.

**Financial Bid**

In order to be compliant, the Bidder's bid must to the satisfaction of Canada meet all requirements and provide all information required under Part 3, article 3.2 – Required Submission Information, Section II – Financial Bid.

**Certifications**

Bidders must submit the certifications required under Part 5 – Certifications.

Canada reserves the right to request information to support any bid requirement. The Bidder is instructed to address each requirement in sufficient depth to permit a complete analysis and assessment by the Evaluation Team. The Bid will be deemed responsive if it is found to meet all of the mandatory requirements.

### 4.2 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.

#### 4.2.1 Unscheduled Work and Evaluation Price

In any vessel refit, repair or docking contract, unscheduled work will arise after the vessel and its equipment is opened up and surveyed.

An anticipated cost for the unscheduled work will be included in the evaluation price. The evaluation price will be calculated by including an estimated amount of additional person-hours multiplied by a firm hourly charge-out rate for unscheduled work and will be added to the firm price for the known work.

The evaluation price will be used for evaluating the bid. The additional amount of person-hours for unscheduled work will be based on historical experience and there is no minimum or maximum amount of unscheduled work nor is there a guarantee of such unscheduled work.

### 4.3 Basis of Selection

A bid must comply with the requirements of the solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

Bidders should note that all contract awards are subject to Canada's internal approvals process, which includes a requirement to approve funding in the amount of any proposed contract. Notwithstanding that a Bidder may have been recommended for award of contract, issuance of any contract will be contingent upon internal approval in accordance with Canada's policies. If such approval is not given, no contract will be awarded.

### 4.4 Deliverables after Contract Award

For details refer to Annex J – Deliverables / Certifications – J2 Deliverables after Contract Award.

## PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

### 5.1 Certifications Required Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame specified will render the bid non-responsive.

#### 5.1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of SACC 2003 Standard Instructions - Goods or Services - Competitive Requirements. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

#### 5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed Annex C Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

## PART 6 - FINANCIAL AND OTHER REQUIREMENTS

### 6.1 Financial Capability

SACC Manual clauseA9033T (2012-07-16) Financial Capability

### 6.2 Vessel Transfer Costs

Vessel Transfer Costs will apply to the evaluation price of this solicitation.

1. The evaluation price must include the cost for transferring the vessel from its home port to the shipyard/ship repair facility where the Work will be performed and the cost of transferring the vessel to its home port following completion of the Work, in accordance with the following:

   a. The Bidder must provide the location of the shipyard/ship repair facility where it proposes to perform the Work together with the applicable vessel transfer cost from the list provided under article 6.2, paragraph 2 of this section and shall be entered into Annex H – Financial Bid Presentation Sheet, item D).

   b. If the list in article 6.2, paragraph 2 of this section does not provide the shipyard/ship repair location where the Bidder intends to perform the Work, then the Bidder must advise the Contracting Authority, in writing, at least ten (10) calendar days before the bid closing date, of its proposed location for performing the Work.

   c. The Contracting Authority will confirm to the Bidder, in writing, at least five (5) calendar days before the bid closing date, the location of the shipyard/ship repair and the applicable vessel transfer cost. A bid that specifies a location for executing the Work which is not on the list provided under article 6.2, paragraph 2 of this section and for which a notification in writing has not been received by the Contracting Authority as required above, will be considered non-responsive.

2. List of shipyard/ship repair facilities and applicable vessel transfer costs:

   Vessel: CCGS Constable Carriere
   Home port: Burlington, Ontario

   Vessel: CCGS Corporal Teather
   Home port: Burlington, Ontario

   Transfer costs in the case of vessels transferred using a government delivery crew include the fuel cost at the vessel's most economical speed of transit and for unmanned refits only, crew transportation costs for the delivery crew based on the location of the vessel's home port and the shipyard/ship repair facility.

   Crew transportation costs do not include any members of the delivery crew who remain at the shipyard/ship repair facility in order to discharge project responsibilities related to the vessel being transferred. Transfer costs in the case of vessels transferred unmanned by either commercial towing, railway, highway or other suitable means of transportation must be:

   (i) included as part of the Bidder's financial bid in the case where the Bidder is responsible for the transfer; or
   (ii) identified as the applicable vessel transfer cost, as given in the list below, in the case when Canada is responsible for the transfer.

**Shipyard/Ship Repair Facility - Applicable Vessel Transfer Costs (per Vessel)**
**Unmanned only: CCGS Carriere and CCGS Teather**

| Company | City/Province | Unmanned Transfer Cost (per Vessel) |
|---|---|---|
| Caraquet Marine Industry Ltd. | Caraquet, NB | $21,974.00 |
| Canadian Maritime Engineering Limited | North Sydney, NS | $39,242.00 |
| Chantier Forillon | Gaspe, QC | $19,598.00 |
| Chantier Matane | Matane, QC | $15,410.00 |
| Davie Industries Inc. | Levis, QC | $10,728.00 |
| Heddle Marine | Hamilton, ON | $212.00 |
| Hike Metal Products Ltd | Wheatley, ON | $5,717.00 |
| MetalCraft Marine Inc. | Kingston, ON | $3,882.00 |
| Oceans Industries Inc. | Saint-Bernard-Sur-Mer, QC | $11,693.00 |
| Verreault Navigation Inc. | Les Mechins, QC | $15,975.00 |

All Prices in CAD

**Proposed Dry Docking Location:** _____.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.3 Docking Facility

Before contract award, the successful Bidder may be required to demonstrate to the satisfaction of Canada that the certified capacity of the docking facility, including any means or conveyance to remove the vessel from the water, is adequate for the anticipated loading in accordance with the related dry docking plans and other documents detailed in the Contract. The successful Bidder will be notified in writing and will be allowed a reasonable period of time to provide detailed keel block load distribution sketches and blocking stability considerations, along with the calculations to show the adequacy of the proposed docking arrangement.

At the time of bid closing the Bidder must provide current and valid certification of the capacity and condition of the docking facility to be used for the Work. The certification must be provided by a recognized consultant or classification society and must have been issued within the past two years.

Although a dry docking facility may have a total capacity greater than the vessel to be docked, the weight distribution of the vessel may cause individual block loading to be exceeded. Also, while the physical dimensions of a dry docking facility may indicate acceptability for docking of a specific vessel, other limitations such as spacing of rails on a marine railway, concrete piers of abutments adjoining the dry dock may, preclude the facility from being considered as a possible dry docking site and render the bid non-responsive.

**Refer to Annex "J1" for Deliverables/Certifications**

### 6.4 Workers' Compensation - Letter of Good Standing

The Bidder must have an account in good standing with the applicable provincial or territorial Workers' Compensation Board.

The bidder must provide with the bid, a certificate or letter from the applicable Worker's Compensation Board confirming the Bidder's good standing account. Failure to comply with the request may result in the bid being declared non-responsive.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.5 Valid Labour Agreement

If the Bidder has a labour agreement, or other suitable instrument, in place with all its unionized labour, it must be valid for the proposed period of any resulting contract. Documentary evidence of the agreement or suitable instrument must be provided on or before bid closing date. If this information is not provided with the bid it will render the bid non-responsive.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.6 Preliminary Work Schedule

6.6.1 At the time of bid closing the Bidder must submit to Canada one (1) copy of its preliminary production work schedule in Gantt chart format. This schedule is to show the commencement and completion dates for the Work in the available work period, including realistic target dates for significant events. This schedule will be reviewed with the successful Bidder at the Pre-Refit Meeting.

6.6.2 The Contractor's schedule must include target dates for each of the following significant events:
a. Commencement of Work as defined at Article 7.5.1
b. Period to be in Dry-Dock
c. All priced work items listed in Annex H Appendix 1 and Appendix 2
d. FSR Scheduling for Priced Work Items
e. Completion of Work as defined at Article 7.5.1
f. Dock and Sea Trials Period
g. Resumption of custody by Canada

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.7 Safety Measures for Fueling and Disembarking Fuel

Fueling and disembarking fuel from Canadian government vessels must be conducted under the supervision of a responsible supervisor trained and experienced in these operations.
At bid closing date, the Bidder must provide details of its safety measures for fueling and disembarking fuel together with the name and qualifications of the person in charge of this activity. If this information is not provided with the bid it will render the bid non-responsive.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.8 ISO 9001:2008 - Quality Management Systems

The Bidder shall have in place a Quality Management System registered to ISO 9001:2008 or a Quality Management System modeled on ISO 9001-2008 and shall provide at time of bid closing:

- If registered its valid ISO 9001-2008 certification;
- Example of Quality Control Plan (QCP) as per article 6.16.

Documentation and procedures of bidders may be subject to a Quality System Evaluation (QSE) by the Technical Authority during bid evaluation period.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.9 Health and Safety

The Bidder must submit with its bid objective evidence that it has a documented Health and Safety system fully compliant with all current Federal, Provincial and Municipal regulations. If this information

is not provided with the bid it will render the bid non-responsive.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.10 Fire Protection, Fire Fighting and Training Procedures

The Bidder must submit with its bid objective evidence that it has documented fire protection, firefighting and training procedures compliant with current regulations and their insurance requirements. The fire protection, firefighting and training procedures will, once accepted by Canada, form part of the Contract. Please refer to article 7.27. If this information is not provided with the bid it will render the bid non-responsive.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.11 Hazardous Waste

1. The Bidder acknowledges that sufficient information has been provided by Canada with respect to the location and estimated amount of hazardous materials such as asbestos, lead PCBs, silica or other hazardous materials or toxic substances.

2. The price includes all costs associated with the removal, handling, storage, disposal and/or working in the vicinity of hazardous materials such as asbestos, lead, PCBs, silica and other hazardous materials or toxic substances on board the vessel, including those costs resulting from the need to comply with applicable laws and regulations in relation to the removal, handling, disposal or storage of hazardous materials or toxic substances.

3. The completion date for the Work takes into account the fact that the removal, handling, storage, disposal and/or working in the vicinity of hazardous materials such as asbestos, lead, PCBs, silica and other hazardous materials or toxic substances may be affected by the need to comply with applicable federal, provincial and municipal laws or regulations and that this will not be considered to be an excusable delay.

### 6.12 Insurance Requirements

The Bidder must provide with its bid a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in Annex D – Insurance Requirements. If this information is not provided with the bid it will render the bid non-responsive.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.13 Welding Certification

1. Welding must be performed by a welder certified by a Canadian Standards Association (CSA) accredited business in accordance with the requirements of the following Canadian Standards Association (CSA) standards:

   a. CSA W47.1-09 (R2014), Certification for Companies for Fusion Welding of Steel (Minimum Division Level 2); and

   b. CSA W47.2-11, Certification for Companies for Fusion Welding of Aluminum (Minimum Division Level 2.1).

The bidder shall submit proof of Certification for Companies for Fusion Welding of Steel with the bid. The certification shall remain valid for the duration of the contract. If this information is not provided with the bid, it will render the bid non- responsive.
Proof of Certification for Companies for Fusion Welding of Aluminum is not required with the bid but must be readily available before the commencement of any fabrication work, and upon request from the Technical Authority. The

certification shall remain valid for the duration of the contract.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

**6.14 Project Management Services**

The Bidder is required to provide a Project Management Team experienced and capable of successfully managing the ship refit contract as defined herein. Project management personnel, services and deliverables must comply with the requirements detailed in the contract.

1. Intent

   a. For the purposes of this solicitation, job titles used are for clarity within this document only. The Contractor is free to choose job titles that suit its organization.

   b. The Contractor, through its Project Management Team, is responsible to discharge the duties and supply the deliverables required in the Contract and the Specifications.

   c. Project Management encompasses the direction and control of such functions as engineering, planning, purchasing, manufacturing, assembly, overhauls, installations and test and trials.

2. Project Manager

   a. The Contractor must supply an experienced Project Manager (PM).

   b. The PM must have experience in managing a project of this nature.

3. Project Management Team

   Other than the Project Manager, the Contractor must assign and vary other job descriptions to suit its organization; provided however that the collective resume of its Project Management must provide for the effective control of the project elements including but not limited to:

   i. Project Management
   ii. Quality Assurance
   iii. Planning and Scheduling

4. Tender Deliverable

   Names, brief resumes, and list of duties for each of the team members that ensures that each of the project elements listed in Article 3. above have been addressed.

5. Reports

   The following Management Reports and Documentation are to be prepared and maintained by the Contractor and submitted to Canada in accordance with the Contract or upon request by the Contracting Authority.

   i. Production Work Schedule
   ii. Inspection Summary Report
   Iii. Growth Work Summary

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

**6.15 List of Proposed Subcontractors**

If the bid includes the use of subcontractors, the Bidder shall provide a list of all subcontractors including a description of the things to be purchased, a description of the work to be performed by specification

section and the location of the performance of that work. The list should not include the purchase of off-the-shelf items, software and such standard articles and materials as are ordinarily produced by manufacturers in the normal course of business, or the provision of such incidental services as might ordinarily be subcontracted in performing the Work, i.e. subcontract work valued at less than $ 5,000.00 aggregate for the project.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.16 Quality Control Plan

At the time of bid closing the Bidder must submit to Canada an example of its Quality Control Plan (QCP) as applied on previous projects of the same nature.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.17 Inspection and Test Plan

At the time of bid closing the Bidder must submit to Canada an example of an Inspection and Test Plan (ITP) complete with requirement and inspection reports as developed on previous projects of the same nature.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

### 6.18 Environmental Protection

At the time of bid closing the Bidder must submit details of its environmental emergency response plans, waste management procedures and/or formal environmental training undertaken by its employees.

For details refer to Annex J Deliverables / Certifications, J1 - Mandatory Tender Deliverables Check List.

## PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the solicitation.

### 7.1 Requirement

The requirement is:

a. To carry out the dry docking refit of the Canadian Coast Guard Vessels CCGS Carriere and Teather in accordance with associated Technical Specifications as detailed in Annex A – Statement of Work (CCGS Carriere and CCGS Teather).

b. To carry out unscheduled work authorized by the Contracting Authority.

### 7.2 Definitions:

In this Contract, unless the context otherwise requires:

‘CCGS’ – means Canadian Coast Guard Ship

‘Design Change’ - means any change to approved drawings, Specifications, or statements of requirements. Work necessary to eliminate " fouling" points or for the correction of errors made by the Contractor is not a "Design Change" within the meaning of this section;

‘DFO’ – means Department of Fisheries and Oceans Canada

Dollar, “Dollars”, or “$” - means the legal tender of Canada;

“Good Marine Quality” - means constructed of materials unaffected by or resilient to moisture, sea spray (salt water and salt air), extremes of temperature, and other hazards of the marine environment, and has been designed and constructed to perform intended function in the marine environment conditions of the Atlantic Ocean and to withstand the dynamic motions and cyclic loads imparted in a marine environment. The item must further be designed and constructed for ease and safety of operation under dynamic conditions, to have an operational life equal or superior to the useful life that can be reasonably expected from such item in similar operating conditions and to require minimum maintenance as a result of such marine operating conditions;

‘Milestone’ - means an event, the completion of which signifies a significant and measurable achievement in the performance of the Work.

‘OEM’ - means original equipment manufacturer;

‘Owner’ - means Her Majesty the Queen in right of Canada as represented by the Minister of Fisheries and Oceans

‘Owners Representative’ – means the Chief Engineer of the Henry Larsen or his/her designate.

‘PWGSC’ – means Public Works and Government Services Canada;

‘Working Day’ – means any day of the year other than a Saturday, Sunday or any statutory holiday in the Province of Newfoundland, Nova Scotia, Ontario, Quebec or in the Public Service of Canada, and any reference herein to a day or days will mean calendar days unless expressly described as a “Working Day” or “Working Days”

Capitalized terms not otherwise defined in these Articles of Agreement numbered 1 through 42 inclusive and defined in the General Conditions or Supplemental Conditions referred to at Section 7.2 will have meanings given to them in those Annexes.

### 7.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

#### 7.3.1 General Conditions

SACC Manual Clause 2030 (2015-09-03), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

SACC Manual Clause 2030 (2015-09-03) General Conditions Higher Complexity - Goods are hereby amended as follows:

Section 22 Warranty

1. The Contractor, if requested by Canada, must replace or repair at its own expense any finished work, excluding Government Issue incorporated in the Work, which becomes defective or which fails to conform to contract requirements as a result of faulty or inefficient manufacture, material or workmanship.

2. Despite acceptance of the finished work, and without restricting any other term of the Contract or any condition, warranty or provision imposed by law, the Contractor warrants that the following will be free from all defects and will conform with the requirements of the Contract:

   (a) The painting of the underwater portion of the hull for a period of 365 days commencing from the date of undocking, except that the Contractor will only be liable to repair and/or replace to a value to be determined as follows:

Original cost to Canada of the underwater painting work, divided by 365 days and multiplied by the number of days remaining in the warranty period. The resultant sum would represent the "Dollar Credit" due to Canada from the Contractor.

   (b) All other painting work for a period of 365 days commencing from the date of acceptance of the Work;

   (c) All other items of work for a period of ninety (90) days commencing from the date of acceptance of the Work, except that:

      (i) the warranty on the work related to any system or equipment not immediately placed in continuous use or service will be for a period of ninety (90) days from the date of acceptance of the vessel;

      (ii) for all outstanding defects, deviations, and work items listed on the Acceptance Document at Delivery, the warranty will be ninety (90) days from the subsequent date of acceptance for each item.

3. The Contractor agrees to pass to Canada, and exercise on behalf of Canada, all warranties on the materials supplied or held by the Contractor which exceed the periods indicated above.

4. Refer to Annex E - Appendix 1 for Warranty Defect Claim Procedures and Form.

#### 7.3.2 Supplemental General Conditions

SACC Manual Clause 1029 (2010-08-16), Ship Repairs apply to and form part of the Contract.

SACC Manual Clause 1031-2 (2012-07-16), Contract Cost Principles, apply and form part of the Contract.

### 7.4 Security Requirement

There is no security requirement applicable to this Contract.

### 7.5 Term of Contract

#### 7.5.1 Work Period – Marine

1. Work must commence and be completed as follows:

   Commencement: April 1, 2016 or earlier.
   Completion: 14 days for each vessel after arrival at contractor's facilities.
   Note: Both vessels must be completed concurrently or in immediate succession.

2. The Contractor agrees that the above times (the "Work Period") provides an adequate period to perform the subject work and absorb a reasonable amount of unscheduled work. The Contractor certifies that they have sufficient material and human resources allocated or available to complete the subject work and a reasonable amount of unscheduled work within the Work Period.

   Canada has the right to delay the arrival of the Vessel at the Contractor's facility subject to the following conditions:

   (a) Canada gives 30 calendar days advance notice of a 15 day maximum delay. The Contractor may claim no additional cost when arrival of the vessel at the Contractor's facility is delayed up to a maximum of 15 calendar days beyond the commencement date, above. The Completion Date shall be extended by a period equal to the length of the delay.

   (b) Canada does not provide 30 calendar days advance notice of a delay. The Completion Date shall be reasonably adjusted to reflect the impact of the delay on the arrival of the Vessel and Canada shall pay only the Daily Services Fee referred to in the Basis of Payment for the period of the delay.

#### 7.5.2 Additional Instructions to Work Period

The vessel will be unmanned during the work period and will be considered to be out of commission. The vessel during that period will be in the care and custody of the Contractor and under its control.

#### 7.5.3 Time is of the Essence

Refer to SACC Manual Clause 2030 (2015-09-03), sub-section 10, Time is of the Essence.

## 7.6 Authorities

### 7.6.1 Contracting Authority

The Contracting Authority for the Contract is:

Dave Green
Department of Public Works and Government Services Canada (PWGSC)
Marine Sector
PWGSC, 6C2 Place du Portage, Phase III
11 Laurier Street,
Gatineau, Quebec, K1A 0S5
Tel: (819) 956-0654
Fax: (819) 956-7725
E-Mail: dave.green@pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 7.6.2 Technical Authority

The Technical Authority for the Contract is: (To be completed at contract award)

Name:
Title:
Department:
Address:

Phone:
Fax:
Email:

The Technical Authority is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 7.6.3 Inspection Authority

The Inspection Authority for the Contract is the Canadian Coast Guard is: (To be completed at contract award)

Name:
Telephone:
Cell:
Fax:
E-mail:

The Inspection Authority named above is responsible for the inspection of the Work and acceptance of the finished work. The Inspection Authority may be represented on site by a designated Inspector and any other Government of Canada Inspector who may from time to time be assigned in support of the designated Inspector.

## 7.7 Payment

### 7.7.1 Basis of Payment – Firm Price

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid a firm price indicated in Annex B – Basis of Payment for the known Work. All Taxes are extra, if applicable.

Payment for unscheduled work shall be in accordance with Annex B as applicable.

No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Specifications, will be authorized or paid to the Contractor unless such design changes, modifications or interpretations have been authorized in writing, by the Contracting Authority prior to their incorporation in the Work.

### 7.7.2 Terms of Payment – Progress Payment

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work, up to ninety (90) percent of the amount claimed and approved by Canada if:

   a. an accurate and complete claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment (http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf), and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;

   b. the amount claimed is in accordance with the basis of payment;

   c. the total amount for all progress payments paid by Canada does not exceed ninety (90) percent of the total amount to be paid under the Contract;

   d. all certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives.

2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted.

3. Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the rights to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

### 7.7.3 Liens – Section 427 of the Bank Act

Refer to SACC Manual Clause H4500C (2010-01-11) Liens – Section 427 of the Bank Act

### 7.7.4 Limitation of Price

Refer to SACC Manual Clause C6000C (2011-05-16) Limitation of Price

### 7.7.5 Time Verification

Refer to SACC Manual Clause C0711C (2008-05-12) Time Verification

## 7.8 Invoicing Instructions

The Contractor must submit invoices in accordance with the information required in SACC Manual General

Conditions 2030 (2015-09-03) Higher Complexity – Goods, Section 13 as well as Article 7.7 – Payment and Article 7.8 – Invoicing Instructions herein.

### 7.8.1 Invoices

1. Invoices are to be addressed to:

Canadian Coast Guard Marine Engineering
520 Exmouth Street
Sarnia, ON, N7T 8B1
Attn: Gail Eyre

And;

The original invoice to be forwarded for verification to:

Public Works and Government Services Canada
Marine Systems Directorate
Ship Refit Division
6C2 Place du Portage, Phase III
11 Laurier Street
Gatineau, Quebec K1A 0S5
Attention: Dave Green

2. Canada will only make payment upon receipt of a satisfactory invoice duly supported by specified release documents and any other documents called for under the Contract.

3. The Contractor shall not submit an invoice prior to the completion and acceptance of the Work or shipment of the items to which it relates.

### 7.8.2 Invoicing Instructions – Progress Claim

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111 http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf, Claim for Progress Payment. Each claim must show:

   (a) all information required on form PWGSC-TPSGC 1111;

   (b) all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;

2. Applicable Taxes must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.

3. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Contracting Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.

   The Contracting Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

4. The Contractor must not submit claims until all work identified in the claim is completed.

### 7.8.3 Warranty Holdback

A warranty holdback of five (5) percent of the total contract price as last amended (Applicable Taxes excluded) will be applied to the final claim for payment. This holdback will be payable by Canada upon the expiry of the 90 day warranty period(s) applicable to the Work. Applicable Taxes, as appropriate, is to be calculated and paid on the total amount of the claim before the five (5) percent holdback is applied. At the time that the holdback is

released, there will be no Applicable Taxes payable, as it was included in previous payments.

## 7.9 Certifications

### 7.9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

### 7.9.2 Federal Contractors Program for Employment Equity – Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC) - Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the FCP Limited Eligibility to Bid list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

## 7.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

## 7.11 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

(a) the Articles of Agreement;
(b) the supplemental general conditions 1029 (2010-08-16) Ship Repairs;
(c) the general conditions 2030 (2015-09-03) General Conditions – Higher Complexity - Goods;
(d) the general conditions 1031-2 (2012-07-16), Contract Cost Principles;
(e) Annex A – Statement of Work;
(f) Annex B – Basis of Payment;
(g) Annex C – Federal Contractors Program for Employment Equity – Certification;
(h) Annex D - Insurance Requirements;
(i) Annex E – Warranty;
(j) Annex F – Procedure for Unscheduled Work;
(k) Annex G – Quality Control / Inspection;
(l) Annex H – Financial and Bid Presentation Sheet;
(m) Annex I – Vessel Custody;
(n) Annex J – Deliverables / Certifications;
(o) the Contractor's bid dated _____(insert date of bid), as amended on _____(insert date(s) of amendment(s) if applicable).

### 7.12 Insurance Requirements

The Contractor must comply with the insurance requirements specified in Annex D – Insurance Requirements. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) working days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. Coverage must be placed with an Insurer licensed to carry out business in Canada. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies

### 7.13 Limitation of Contractor's Liability for Damages to Canada

1. This section applies despite any other provision of the Contract and replaces the section of the general conditions entitled "Liability". Any reference in this section to damages caused by the Contractor also includes damages caused by its employees, as well as its subcontractors, agents, and representatives, and any of their employees.

2. Whether the claim is based in contract, tort, or another cause of action, the Contractor's liability for all damages suffered by Canada caused by the Contractor's performance of or failure to perform the Contract is limited to $10 million per incident or occurrence to an annual aggregate of $20 million for losses or damage caused in any one year of carrying out the Contract, each year starting on the date of coming into force of the Contract or its anniversary. This limitation of the Contractor's liability does not apply to nor include:

   (a) Any infringement of intellectual property rights;

   (b) Any breach of warranty obligations;

   (c) Any liability of Canada to a third party arising from any act or omission of the Contractor in performing the Contract; or

   (d) Any loss for which the policies of insurance specified in the Contract or any other policies of insurance held by the Contractor would provide insurance coverage.

3. Each Party agrees that it is fully liable for any damages that it causes to any third party in connection with the Contract, regardless of whether the third party makes its claim against Canada or the Contractor. If Canada is required, as a result of joint and several liability, to pay a third party in respect of damages caused by the Contractor, the Contractor must reimburse Canada for that amount.

4. The Parties agree that nothing herein is intended to limit any insurable interest of the Contractor nor to limit the amounts otherwise recoverable under any insurance policy. The Parties agree that to the extent that the insurance coverage required to be maintained by the Contractor under this Contract or any additional insurance coverage maintained by the Contractor, whichever is greater, is more than the limitations of liability described in sub article (2), the limitations provided herein are increased accordingly and the Contractor shall be liable for the higher amount to the full extent of the insurance proceeds recovered.

5. If, at any time, the total cumulative liability of the Contractor for losses or damage suffered by Canada caused by the Contractor's performance of or failure to perform the Contract, excluding liability described under subsection 2(a), (b), (c) and (d) exceeds $40 million, either Party may terminate the Contract by giving notice in writing to the other Party and neither Party will make any claim against the other for damages, costs,

expected profits or any other such loss arising out of the termination. However, no such termination or expiry of the Contact shall reduce or terminate any of the liabilities that have accrued to the effective date of the termination but which liabilities are subject to the limitations as specified in sub-article 1. through 4., above.

6. The date of termination pursuant to this Article, shall be the date specified by Canada in its notice to terminate, or, if the Contractor exercises the right to terminate, in a notice to the Contractor from Canada in response to the Contractor's notice to terminate. The date of termination shall be in Canada's discretion to a maximum of twelve (12) months after service of the original notice to terminate served by either Party pursuant to sub-article 5., above.

7. Nothing shall limit Canada's other remedies, including Canada's right to terminate the Contract for default for breach by the Contractor of any of its obligations under this Contract, notwithstanding that the

   Contractor may have reached any limitation of its liability hereunder.

**7.13.1 Environmental Impairment Liability Insurance**

1. The Contractor must obtain Contractor's Pollution Liability insurance, providing coverage for Asbestos Abatement, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than $5,000,000 per accident or occurrence and in the annual aggregate.

2. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

3. The Contractor's Pollution Liability insurance coverage provided under the remarks section above) policy must include the following:

   a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.

   b. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.

   c. Separation of Insureds: The policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

   d. Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.

   e. Incidental Transit Extension: The policy must extend to losses arising from any waste, products or materials transported, shipped, or delivered via any transportation mode to a location beyond the boundaries of a site at which the Contractor or any entity for which

   f. the Contractor is legally liable is performing or has performed the operations described in the contract.

   g. Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:
Director Business Law Directorate,
Quebec Regional Office (Ottawa),
Department of Justice,
284 Wellington Street, Room SAT-6042,
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

### 7.14 Foreign Nationals (Canadian Contractor)

The Contractor must comply with Canadian immigration requirements applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Service Canada regional office to enquire about Citizenship and Immigration Canada's requirements to issue a temporary work permit to a foreign national. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements

### 7.15 Sub-Contracts and Subcontractor List

The Contracting Authority is to be notified, in writing, of any changes to the list of subcontractors before commencing the work.

When the Contractor sub-contracts work, a copy of the sub-contract purchase order is to be passed to the Contracting Authority. In addition, the Contractor must monitor progress of sub-contracted work and inform the Inspection Authority on pertinent stages of work to permit inspection when considered necessary by the Inspection Authority.

### 7.16 Work Schedule and Reports

No later than five (5) calendar days after contract award, the preliminary work schedule provided with the bid must be revised, detailed and resubmitted in preparation to the contract award meeting.
The Contractor must provide a detailed work schedule showing the commencement and completion dates for the Work in the available work period, including realistic target dates for significant events. During the work period the schedule is to be reviewed on an ongoing basis by the Inspection Authority and the Contractor, updated when necessary, and available in the Contractor's office for review by Canada's authorities to determine the progress of the Work.

### 7.17 Insulation Materials - Asbestos Free

All materials used to insulate or re-insulate any surfaces on board the vessel must meet Transport Canada Marine standards, for commercial marine work, and, for all work, be free from asbestos in any form. The Contractor must ensure that all machinery and equipment located below or adjacent to surfaces to be re-insulated are adequately covered and protected before removing existing insulation.

### 7.18 Trade Qualifications

The Contractor must use qualified, certificated (if applicable) and competent trades people and supervision to ensure a uniform high level of workmanship. The Technical Authority may request to view and record details of the certification and/or qualifications held by the Contractor’s trades people. This request should not be unduly exercised but only to ensure qualified trades people are on the job.

### 7.19 ISO 9001:2008 - Quality Management Systems

In the performance of the Work described in the Contract, the Contractor must comply with the requirements of:

ISO 9001:2008 - Quality management systems - Requirements, published by the International Organization for Standardization (ISO), current edition at date of submission of Contractor's bid.

The Contractor's quality management system must address each requirement contained in the standard, however, the Contractor is not required to be registered to the applicable standard.

### 7.20 Project Management Services

The Bidder is required to provide a Project Management Team experienced and capable of successfully managing the ship refit contract as defined herein. Project management personnel, services and deliverables must comply with the requirements detailed in the contract.

1. Intent

   a. For the purposes of this solicitation, job titles used are for clarity within this document only. The Contractor is free to choose job titles that suit its organization.

   b. The Contractor, through its Project Management Team, is responsible to discharge the duties and supply the deliverables required in the Contract and the Specifications.

   c. Project Management encompasses the direction and control of such functions as engineering, planning, purchasing, manufacturing, assembly, overhauls, installations and test and trials.

2. Project Manager

   a. The Contractor must supply an experienced Project Manager (PM).

   b. The PM must have experience in managing a project of this nature.

3. Project Management Team

   Other than the Project Manager, the Contractor must assign and vary other job descriptions to suit its organization; provided however that the collective resume of its Project Management must provide for the effective control of the project elements including but not limited to:

   i. Project Management
   ii. Quality Assurance
   iii. Planning and Scheduling

4. Tender Deliverable

   Names, brief resumes, and list of duties for each of the team members that ensures that each of the project elements listed in Article 3. above have been addressed.

5. Reports

   The following Management Reports and Documentation are to be prepared and maintained by the Contractor and submitted to Canada in accordance with the Contract or upon request by the Contracting Authority.

i. Production Work Schedule
ii. Inspection Summary Report
Iii. Growth Work Summary

### 7.21 Quality Control Plan

The Contractor must implement and follow the Quality Control Plan (QCP) prepared according to the latest issue (at contract date) of ISO 10005:2005 Quality management - Guidelines for quality plans, approved by the Inspection and the Technical Authority. The QCP must describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of subcontractors. The Contractor must include a traceability matrix from the elements of the specified quality requirements to the corresponding paragraphs in the QCP. The QCP must be made available to the Inspection and Technical Authority for review and approval within five (5) calendar days after contract award.

The documents referenced in the QCP must be made available when requested by the Inspection Authority.

The Contractor must make appropriate amendments to the QCP throughout the term of the Contract to reflect current and planned quality activities. Amendments to the QCP must be acceptable to the Inspection Authority and the Technical Authority.

For details refer to Annex G - Quality Control / Inspection

### 7.22 Inspection and Test Plan

The Contractor must in support of its Quality Control Plan (QCP), implement an approved Inspection and Test Plan (ITP).

The Contractor must provide at no additional cost to Canada, all applicable test data, all Contractor technical data, test pieces and samples as may reasonably be required by the Inspection Authority to verify conformance to contract requirements. The Contractor must forward at his expense such technical data, test data, test pieces and samples to such location as the Inspection Authority may direct.

For details refer to Annex G - Quality Control / Inspection

### 7.23 Equipment/Systems: Inspection/Test

Inspections, Tests and Trials of Equipment, Machinery and Systems shall be conducted in accordance with the Specification. The Contractor is responsible for performing, or having performed, all Inspections, Tests and Trials necessary to substantiate that the materiel and services provided conform to contract requirements.

For details refer to Annex G - Quality Control / Inspection

### 7.24 Environmental Protection

The Contractor and its subcontractors engaged in the Work on a Crown vessel must carry out the Work in compliance with applicable municipal, provincial and federal environmental laws, regulations and industry standards.

The Contractor must have detailed procedures and processes for identifying, removing, tracking, storing, transporting and disposing of all potential pollutants and hazardous material encountered, to ensure compliance as required above. The Contractor must maintain in force their Environmental Protection procedures through the course of the contract.

All waste disposal certificates are to be provided to the Technical Authority, with information copies sent

to the Contracting Authority. Furthermore, additional evidence of compliance with municipal, provincial and federal environmental laws and regulations is to be furnished by the Contractor to the Contracting Authority when so requested.

The Contractor must have environmental emergency response plans and/or procedures in place. Contractor and subcontractor employees must have received the appropriate training in emergency preparedness and response. Contractor personnel engaging in activities which may cause environmental impacts or potential noncompliance situations, must be competent to do so on the basis of appropriate education, training, or experience.

### 7.25 Hazardous Waste

1. The Contractor acknowledges that sufficient information has been provided by Canada with respect to the location and estimated amount of hazardous materials such as asbestos, lead PCBs, silica or other hazardous materials or toxic substances.

2. The price includes all costs associated with the removal, handling, storage, disposal and/or working in the vicinity of hazardous materials such as asbestos, lead, PCBs, silica and other hazardous materials or toxic substances on board the vessel, including those costs resulting from the need to comply with applicable laws and regulations in relation to the removal, handling, disposal or storage of hazardous materials or toxic substances.

3. The completion date for the Work takes into account the fact that the removal, handling, storage, disposal and/or working in the vicinity of hazardous materials such as asbestos, lead, PCBs, silica and other hazardous materials or toxic substances may be affected by the need to comply with applicable federal, provincial and municipal laws or regulations and that this will not be considered to be an excusable delay.

### 7.26 Supervision of Fueling and Disembarking Fuel

The Contractor must ensure that fueling and disembarking of fuel from Canadian government vessels are conducted under the supervision of a responsible supervisor trained and experienced in these operations.

All fueling and disembarking of fuel on CCGS Carriere and CCGS Teather must be done is accordance with the Contractor's submitted and accepted procedures.

### 7.27 Fire Protection, Fire Fighting and Training

The Contractor must maintain in force their fire protection, firefighting and training procedures through the course of the Contract.

### 7.28 Loan of Equipment - Marine

The Contractor may apply for the loan of the Government special tools and test equipment particular to the subject vessel as identified in the Specifications. The provision of other equipment required for the execution of work in the Specifications is the sole responsibility of the Contractor.

Equipment loaned under this provision must be used only for work under this Contract and may be subject to demurrage charges if not returned on the date required by Canada. In addition, equipment loaned under the above provision must be returned in a like condition, subject to normal wear and tear. A list of Government equipment that the Contractor intends to request must be submitted to the Contracting Authority within three (3) days of Contract Award to permit timely supply or for alternate arrangements to be made. The request must state the time frame for which the equipment is required.

For details refer to Annex J Deliverables / Certifications – J2 Deliverables after Contract Award.

**7.29 Welding Certification**

1. The Contractor must ensure that welding is performed by a welder certified by the Canadian Welding Bureau (CWB) in accordance with the requirements of the following Canadian Standards Association (CSA) standards:

   (a) CSA W47.1-09, Certification for Companies for Fusion Welding of Steel (Division Level 1 or 2); and

   (b) W47.2-11 (R2015), Certification for Companies for Fusion Welding of Aluminum (Division Level 1 or 2).

2. In addition, welding must be done in accordance with the requirements of the applicable drawings and specifications.

3. Before the commencement of any fabrication work, and upon request from the Technical Authority, the Contractor must provide approved welding procedures and/or a list of welding personnel intended to be used in the completion of the work. The list must identify the CWB welding procedure qualifications attained by each of the personnel listed and must be accompanied by a copy of each person's current CWB welding certification.

**7.30 Procedures for Design Change or Additional Work**

SACC Manual Clause B5007C (2010-01-11) Procedures for Design Change or Additional Work
In addition, refer to Annex F – Procedure for Processing Unscheduled Work.

**7.31 Vessel Unmanned Refits**

SACC Manual Clause A0024C (2010-08-16) Vessel Unmanned Refits.

For details refer to Annex I – Vessel Custody

**7.32 Pre-Refit Meeting**

A Pre-Refit meeting will be convened and chaired by the Contracting Authority at the Contractor's facility at a time to be determined. At that meeting the Contractor will introduce all its management personnel as per its organization chart, and Canada will introduce authorities. Details of ship's arrival and work commencement will be discussed.

**7.33 Progress Meetings**

Progress meetings, chaired by the Contracting Authority, will take place at the Contractor's facility as and when required, generally once a month. Interim meetings may also be scheduled. Contractor attendees at these meetings will, as a minimum, be its Contract (Project) Manager, Production Manager (Superintendent) and Quality Assurance Manager. Progress meetings will generally incorporate Technical meetings to be chaired by the Technical Authority.

During each PRM the Contractor shall provide a status of the overall contracted project, including programmatic, production, test, Integrated Logistics Support, subcontract, risk issues, and progress as it relates to the Schedule, and the associated Work Breakdown Structure. For each PRM, the Contractor shall:

(a) Ensure that Contractor data, personnel and facilities are available for each formal meeting in order that the meetings may be conducted in an efficient manner; and

(b) Include the following agenda items for discussion and resolution:
   i. Contractual Issues;
   ii. Financial Issues
   iii. Technical Issues;

iv. Environmental, Health and Safety Issues; and
v. Previous action items.

### 7.34 Outstanding Work and Acceptance

1. The Inspection Authority, in conjunction with the Contractor, will prepare a list of outstanding work items at the end of the work period. This list will form the annexes to the formal acceptance document for the vessel. A contract completion meeting will be convened by the Inspection Authority on the work completion date to review and sign off the form PWGSC-TPSGC1205, Acceptance. In addition to any amount held under the Warranty Holdback Clause, a holdback of twice the estimated value of outstanding work will be held until that work is completed.

2. The Contractor must complete the above form in three (3) copies, which will be distributed by the Inspection Authority as follows:

(a) original to the Contracting Authority;

(b) one copy to the Technical Authority;

(c) one copy to the Contractor.

For details on Acceptance Procedures and Reports refer to Annex I – Vessel Custody

### 7.35 Scrap and Waste Material

Despite any other provision of the Contract, scrap and waste materials other than accountable material, derived from the Contract, will revert to the Contractor as part of the Contract Price.

### 7.36 Stability

The Contractor will be solely responsible for the stability and trim of the ship during the period the vessel is in the Contractor's facility, including docking and undocking. The Contractor must maintain weight change information pertinent to the vessel's stability during the docking period. The Technical Authority will supply the Contractor with cross curves of stability, hydrostatic curves, tank status, location of centre of gravity, and other information relevant to the ship's condition upon handing over of the vessel.

### 7.37 Vessel Access by Canada

Canada reserves the right to have its personnel carry out limited work on equipment on board the vessel. This work will be carried out at times mutually acceptable to Canada and the Contractor.

### 7.38 Title to Property - Vessel

If the Contractor is in default in carrying any of its obligations under the Contract, Canada, or its agents, will have the immediate right to enter the shipyard, without first obtaining a court order, to take possession of the vessel and all other property of Canada, including, but not limited to, work-in-process located on the premises, and to perform any further work required to enable the vessel and other such property to be removed from the shipyard.

### 7.39 Workers Compensation

The Contractor must maintain its account in good standing with the applicable provincial or territorial Workers' Compensation Board for the duration of the Contract.

### 7.40 Dispute Resolution

The parties agree to follow the procedures below for the settlement of any disputes which may arise throughout the life of this Contract prior to seeking redress through court procedures:

(a) Disputes arising from this Contract will in the first instance be resolved by the Contracting Authority and the Contractor's Contract Administrator within fifteen (15) working days or such additional time as may be agreed to by both parties.

(b) Failing resolution under (a) above, the Manager of the Ship Refit Division (MD) of the Marine Systems Directorate at PWGSC and the Contractor's Representative Supervisor will attempt to resolve the dispute within an additional fifteen (15) working days.

(c) Failing resolution under (a) or (b) above, the Senior Director of the Marine Systems Directorate at PWGSC, and the Contractor's Senior Management will attempt to resolve the dispute within an additional thirty (30) working days.

(d) Notwithstanding the above procedure, either party may seek a decision through the courts at any time during the dispute.

**7.41 Failure to Deliver**

Time is of the essence of the Contract. Changes in the Completion date not caused by Canada are Contractor defaults, will prejudice Canada and are at the Contractor's expense. The Completion date will not be extended without consideration being provided by the Contractor acceptable to Canada in the form of adjustment to the price, warranty or services to be provided.

**7.42 Care, Custody and Control**

For details refer to Annex I – Vessel Custody and Supplemental General Conditions 1029 (2010-08-16) Ship Repairs Article 09 - Where Vessel Out of Commission.

**7.43 Permits, Licenses and Certificates**

The Contractor must obtain and maintain all permits, licenses and certificates of approval required for the work to be performed under any applicable federal, provincial or municipal legislation. The Contractor is responsible for any charges imposed by such legislation or regulations. Upon request, the Contractor must provide a copy of any such permit, license or certificate to Canada.

**7.44 Export Licenses:**

Where material is to be imported into Canada, the Contractor is responsible for obtaining all necessary export licenses from the country of origin in sufficient time to enable the export.

**7.45 Equivalency of Equipment**

(a) The Contractor guarantees that the equipment to be delivered under the Contract is:

(i) equivalent in form, fit, function and quality to the existing equipment owned by Canada that was described in the bid solicitation that resulted in the Contract; and

(ii) fully compatible, interchangeable and interoperable with the existing equipment owned by Canada.

(b) The Contractor also guarantees that any warranties with third parties concerning the existing equipment owned by Canada will not be adversely affected by Canada's use of the equipment delivered under the Contract (for example, by interconnecting the equipment) or by any other services provided by the Contractor under the Contract. If Canada determines in its sole discretion that any such warranty has been adversely affected, at Canada's sole option, the Contractor must:

(i) pay to Canada the amount that Canada must pay to the original supplier (or an authorized reseller of that supplier) to re-certify Canada's existing equipment for warranty purposes and any other amounts paid by Canada to a third party in order to restore the equipment to full warranty status;

(ii) perform all warranty work on Canada's existing equipment in place of the original supplier; or

(iii) pay to Canada the amount that Canada must pay to the original supplier (or an authorized reseller of that supplier) to perform maintenance work on the equipment that otherwise would have been covered by the warranty.

(c) The Contractor agrees that, during the Contract Period, if Canada determines that any of the equipment is not equivalent in form, fit, function and quality to the existing equipment owned by Canada or is not fully compatible, interchangeable and interoperable with the existing equipment owned by Canada, the Contractor must immediately and entirely at its own expense take all steps necessary to ensure that the equipment satisfies these requirements (for example, by implementing any additional software or firmware), failing which Canada will have the immediate right to terminate the Contract for default. The Contractor agrees that, if Canada terminates the Contract for this reason, the Contractor must pay to Canada the costs of reprocuring the equipment from a third party and the difference, if any, in price paid by Canada to the third party. The Contractor acknowledges that its failure to deliver equivalent equipment that satisfies the above requirements may result in the Contractor (as well as its affiliates and any other entities with whom the Contractor or its principals do not deal at arm's length) being unable to propose equivalent substitutes in response to future PWGSC bid solicitations.

## ANNEX A - STATEMENTS OF WORK - SPECIFICATIONS

See attached documents.

ANNEX B - BASIS OF PAYMENT

Annex B will form the Basis of Payment for the resulting Contract and should not be filled in at the bid submission stage.

B1 Contract Firm Price

| | | |
|---|---|---|
| A) | Known Work<br>For work as stated in PART 7 - article 7.1, specified in Annex A and detailed in the attached Annex H – Appendix 1 & 2 - Pricing Data Sheet for the FIRM PRICE of: | $ |
| B) | Applicable taxes of line A) only: | $ |
| C) | Total firm Price including Applicable Taxes [A) + B)] | $ |

B2 Unscheduled Work

The Contractor will be paid for unscheduled work arising, as authorized by Canada. The authorized unscheduled work will be calculated as follows:

"Number of hours (to be negotiated) X $_____, being the Contractor's firm hourly charge-out labour rate which includes overhead, consumables, and profit, plus net laid-down cost of materials to which will be added a mark-up of 10%, plus applicable taxes, of the total cost of material and labour. The firm hourly charge-out labour rate and the material mark-up will remain firm for the duration of the Contract and any subsequent amendments."

B2.1: Notwithstanding definitions or usage elsewhere in this document, or in the Contractor's Cost Management System, when negotiating hours for unscheduled work, PWGSC will consider only those hours of labour directly involved in the production of the subject work package.

Elements of Related Labour Costs identified in this section B2.2 below, will not be negotiated, but will be compensated for in accordance with B2.2.

B2.2: Allowance for Related Labour Costs such as: Management, all Supervision, Purchasing and Material Handling, Quality Assurance and Reporting, First Aid, Gas Free Certification Inspecting and Reporting, Estimating, and Preparing Unscheduled Work Submissions will be included as Overhead for the purposes of determining the Charge-out Labour Rate entered in line B2 above.

B2.3: The 10% mark-up rate for materials will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Charge-out Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

Pro-rated Prices Unscheduled Work

Hours and prices for unscheduled work shall be based on comparable historical data applicable to similar work at the same facility, or shall be determined by pro-rating the quoted Work costs in the Contract when in similar areas of the vessel.

B3 Overtime

The Contractor must not perform any overtime under the Contract unless authorized in advance and in writing by the Contracting Authority. There will be no overtime payment for Known Work. Any request for payment must be accompanied by a copy of the overtime authorization and a report containing the overtime performed pursuant to the written authorization. Payment for authorized overtime will be calculated as follows:

For unscheduled work, the Contractor will be paid the authorized overtime hours at the following charge-out labour rates:

a. Time and One Half**: $ _____ per hour; or

b. Double Time***: $ _____ per hour

This rate shall be a blended rater for all classes of labour, engineering and foreperson and shall include all overheads, supervision and profit.
These rates will remain firm for the duration of the Contract, including all amendments and are subject to audit if considered necessary by Canada.

* Regular time is defined as an 8 hour work day.
** Time and One Half is defined as time in excess of the Regular Time*.
*** Double Time is defined as Sundays and Statutory Holidays.

B4 Daily Services Fee

In the event of a delay in the performance of the Work that lengthens the Work period beyond the date specified in this Contract, and if such delay is recognized and agreed upon by the Contracting Authority as being attributable to Canada, Canada agrees to pay the Contractor the daily services fee, described below, for each day of such delay. This fee shall be the sole liability of Canada to the Contractor for the delay.

The firm daily services fee is:

a. For a Working Day: $_____

b. For a Non-Working Day: $_____

The above fees shall include but not be limited to, all aspects of the following costs: Project Management Services, Administrative Support, Production Services, Quality Assurance, Material Support, Planned Maintenance and Ship Services, and all other resources and direct costs needed to maintain the Vessel at the Contractor's facility. These fees are firm and not subject to any additional charges for mark-up or profit.

B5 Vessel, Refit, Repair or Docking Cost

The following costs must be included in the price:

B5.1: Ship Services: include all costs for ship services such as water, steam, electricity, etc., required for vessel maintenance for the duration of the Contract.

B5.2: Docking and Undocking include:

a. all costs resulting from dry docking, wharfage, security, shoring, shifting and/or moving of the vessel within the successful Bidder's facility;

b. the cost of services to tie up the vessel alongside and to cast off.

Unless specified otherwise, the vessel will be delivered by Canada to the successful Bidder's facility alongside a mutually agreed safe transfer point, afloat and upright, and the successful Bidder will do the same when the Work is completed. The cost of services to tie up the vessel alongside and to cast off must be included in the evaluation price.

B5.3: Field Service Representatives/Supervisory Services: include all costs for field service Representatives / supervisory services including manufacturers' representatives, engineers, etc. The Contractor is

responsible for the performance of all subcontractors and FSRs.

These services must not be an extra charge except where unscheduled work requiring these services is added to the Contract.

B5.4: Removals: include all costs for removals necessary to carry out the Work and will be the responsibility of the successful Bidder whether or not they are identified in the specifications, except those removals not apparent when viewing the vessel or examining the drawings. The successful Bidder will also be responsible for safe storage of removed items and reinstalling them on completion of the Work. The successful Bidder will be responsible for renewal of components damaged during removal.

B5.5: Sheltering, Staging, Cranage and Transportation: include the cost of all sheltering, staging including handrails, cranage and transportation to carry out the Work as specified.

The Contractor will be responsible for the cost of any necessary modification of these facilities to meet applicable safety regulations.

B6 Pricing Data Sheets

Parameters from the Pricing Data Sheets will be used at Canada's sole discretion in the determination of unscheduled work price.

ANNEX C to PART 5 - BID SOLICITATION

FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit Employment and Social Development Canada (ESDC) – Labour's website (http://www.esdc.gc.ca/en/jobs/workplace/human_rights/employment_equity/federal_contractor_program.page).

Date:_____(YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

( ) A1. The Bidder certifies having no work force in Canada.

( ) A2. The Bidder certifies being a public sector employer.

( ) A3. The Bidder certifies being a federally regulated employer being subject to the Employment Equity Act.

( ) A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

( ) A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC-Labour.

OR

( ) A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

( ) B1. The Bidder is not a Joint Venture.

OR

( ) B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)

ANNEX D - INSURANCE REQUIREMENTS

D1. Ship Repairers' Liability Insurance

1. The Contractor must obtain Ship Repairer's Liability Insurance and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than $10,000,000 per accident or occurrence and in the annual aggregate.

2. The Ship Repairer's Liability insurance must include the following:

   a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.

   b. Waiver of Subrogation Rights: Contractor's Insurer to waive all rights of subrogation against Canada as represented by Environment Canada and Public Works and Government Services Canada for any and all loss of or damage to the vessel, however caused.

   c. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of cancellation.

   d. Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.

   e. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

D2. Commercial General Liability Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than $10,000,000 per accident or occurrence and in the annual aggregate.

2. The Commercial General Liability Insurance policy must include the following:

   a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.

   b. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.

   c. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.

   d. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

   e. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.

   f. Employees and, if applicable, Volunteers must be included as Additional Insured.

   g. Employers' Liability (or confirmation that all employees are covered by Worker's Compensation (WSIB) or a similar program)

h. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority with thirty (30) days written notice of policy cancellation.

i. If the policy is written on a claims-made basis, coverage must be in place for a period of at least twelve (12) months after the completion or termination of the Contract. Employees and, if applicable, Volunteers must be included as Additional Insured.

j. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.

k. Sudden and Accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.

D3. Environmental Impairment Liability Insurance

1. The Contractor must obtain Contractor's Pollution Liability insurance, providing coverage for Asbestos Abatement, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than $5,000,000 per accident or occurrence and in the annual aggregate.

2. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

3. The Contractor's Pollution Liability insurance policy must include the following:

   a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.

   b. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.

   c. Separation of Insureds: The policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

   d. Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.

   e. Incidental Transit Extension: The policy must extend to losses arising from any waste, products or materials transported, shipped, or delivered via any transportation mode to a location beyond the boundaries of a site at which the Contractor or any entity for which the Contractor is legally liable is performing or has performed the operations described in the contract.

   f. Lead and Asbestos Abatement: The policy must provide coverage for the removal and disposal of asbestos material.

   g. Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:
Director Business Law Directorate,
Quebec Regional Office (Ottawa),
Department of Justice,
284 Wellington Street, Room SAT-6042,
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

ANNEX E – WARRANTY

Warranty Procedures

E1. Scope

a. The following are the procedures that suit the particular requirements for warranty considerations for a vessel on completion of a refit.

E2. Reporting Failures with Warranty Potential

a. The initial purpose of a report of a failure is to facilitate the decision as to whether or not to involve warranty and to generate action to effect repairs. Therefore in addition to identification, location data, etc. the report must contain details of the defect. Warranty decisions as a general rule are to be made locally and the administrative process is to be in accordance with procedures as indicated.

b. These procedures are necessary as invoking a warranty does not simply mean that the warrantor will automatically proceed with repairs at his expense. A review of the defect may well result in a disclaimer of responsibility, therefore, it is imperative that during such a review the Department is directly represented by competent technical authority qualified to agree or disagree with the warrantor's assertions. Since the INSPECTION AUTHORITY has the closest and most active involvement of the contracted work completed this agency must assume this role.

E3. Procedures

a. Immediately it becomes known to the Ship's Staff that an equipment/system is performing below accepted standards or has become defective, the procedures for the investigation and reporting are as follows:

i. The vessel advises the Technical Authority when a defect, which is considered to be directly associated the refit work, has occurred.

ii. On review of the Specification and the Acceptance Document, the Technical Authority in consort with Ship's Staff is to complete the Tombstone Data and section 1 of the Appendix 1 – Warranty Claim Form Annex D and forward the original to the Contractor for review with a copy to the PWGSC contracting Authority. If the PWGSC Contracting or INSPECTION AUTHORITY is unable to support warranty action, the Defect Claim Form will be returned to the originator with a brief justification. (It is to be noted that in the latter instance PWGSC will inform the Contractor of its decision and no further action will be required of the Contractor.

Warranty defect claims may be forwarded in hard copy, by fax or by e-mail whichever format is the most convenient.

iii. Assuming the Contractor accepts full responsibility for repair, the Contractor completes Section 2 and 3 of the Warranty Claim Form, returns it to the INSPECTION AUTHORITY who confirms corrective action has been completed, and who then distributes the form to the Technical Authority and the PWGSC Contracting Authority.

b. In the event that the Contractor disputes the claim as a warranty defect, or agrees to share, the Contractor is to complete Part 2 and 3 of the Warranty Claim Form with the appropriate information and forward it to the Contracting Authority who will distribute copies as necessary.

c. When a warranty defect claim is disputed by the Contractor, the Technical Authority may arrange to correct the defect by in-house resources or by contracting the work out. All associated costs must be tracked and recorded as a possible charge against the contractor by PWGSC action. Material costs and manhours expended in correcting the defect are to be recorded and entered in Section 5 of the warranty defect claim by the Technical Authority who

will forward the warranty defect claim to the PWGSC Contracting Authority for action. Defective parts of equipment are to be retained pending settlement of claim.

d. Defective equipment associated with potential warranty should not normally be dismantled until the Contractor's representative has had the opportunity to observe the defect. The necessary work is to be undertaken through normal repair methods and costs must be segregated as a possible charge against a contractor by PWGSC action.

**E4. Liability**

a. Agreement between the Contracting Authority, INSPECTION AUTHORITY, Technical Authority and the Contractor will result in one of the following conditions:

i. The Contractor accepts full responsibility for costs to repair or overhaul under the warranty provisions of the contract;

ii. The Technical Authority accepts full responsibility for repair and overhaul of item concerned; or

iii. The Contractor and the Technical Authority agree to share responsibility for the costs to repair or overhaul the unserviceable item, in such cases the PWGSC Contracting Authority will negotiate the best possible sharing arrangement.

b. In the event of a disagreement as in paragraph 5c, PWGSC will take necessary action with the Contractor while the Technical Authority informs its Senior Management including pertinent data and recommendations.

c. The total cost of processing warranty claims must include accommodation and travel costs of the Contractor's employees as well as equipment/system down time and operational constraints. Accordingly, the cost to remediate the defect, in manhours and material, will be discussed between the Contracting/Inspection Authorities and the Technical Authority to determine the best course of action.

ANNEX E – APPENDIX 1

Public Works and Government Services Canada

Travaux publics et Services Gouvernementaux Canada

# Warranty Claim
# Réclamation de Garantie

| Vessel Name – nom de navire | File No. – N°. de dossier | Contract No. – N° de contrat |
|---|---|---|
| Customer Department – Ministère client | | Warranty Claim Serial No. – Numero de série de reclamation de garantie |
| Contractor - Entrepreneur | | Effect on Vessel Operations – Effet sur des opérations de navire<br>Critical / Critique ☐ Degraded / Dégradé ☐ Operational / Opérationnel ☐ Non-operational / Non-opérationnel ☐ |

1. Description of Complaint – Description de plainte

Contact Information – Information de contrat

_____ _____

Name – Nom Tel. No. – N° Tél

_____ _____

Signature – Signature Date - Date

| 2. Contractor's Investigative Report – Le rapport investigateur de l'entrepreneur |
|---|
| |

| 3. Contractor's Corrective Action – La modalité de reprise de l'entrepreneur |
|---|
| |

Contractor name and signature – Nom et signature de l'entrepreneur

Date of corrective action – Date de mesures correctives

Client name and signature – Nom et signature de client

Date - Date

| 4. PWGSC Review of Warranty Claim Action – Examen d'action de reclamation de garantie par TPSGC |
|---|
| |

Signature – Signature

Date - Date

| 5. Additional Information – Renseignements supplémentaires |
|---|
| |



Canada

ANNEX F – PROCEDURE FOR UNSCHEDULED WORK

F1. Purpose

The unscheduled work Procedure has been instituted for the following purposes:

a. To establish a uniform method of dealing with requests for unscheduled work;

b. To obtain the necessary Technical Authority approval and Contracting Authority authorization before unscheduled work commences;

c. To provide a means of maintaining a record of unscheduled work requirements including serial numbers, dates and accumulated cost. The Contractor shall have a cost accounting system that is capable of assigning job numbers for each unscheduled work requirement so that each requirement can be audited individually.

F2. Definitions

a. An unscheduled work Procedure is a contractual procedure whereby changes to the scope of work under the Contract may be defined, priced and contractually agreed to. Such changes may arise from:
   i. "Work Arising" from opening up of machinery and/or surveys of equipment and material, OR
   ii. "New Work" not initially specified but required on the Vessel.

b. The procedure does not allow for the correction of deficiencies in the Contractor's Bid.

c. No unscheduled work may be undertaken by the Contractor without written authorization by the Contracting Authority, except under emergency circumstances as described in sub paragraph 3(b) unscheduled work.

d. Work undertaken without written Contracting Authority authorization will be considered the Contractor's responsibility and cost.

e. The appropriate PWGSC form is the final summary of the definition of the unscheduled work requirement, and the costs negotiated and agreed to.

F3. Procedures

a. The procedure involves the electronic form PWGSC 1379 for refit and repair and will be the only form for authorizing all unscheduled work.

b. Emergency measures required to prevent loss or damage to the Vessel which would occur if this procedure were followed, shall be taken by the Contractor on its own authority. The responsibility for the cost of such measures shall be determined in accordance with the terms and conditions of the Contract.

c. The Technical Authority will initiate a work estimate request by defining the unscheduled work requirement. It will attach drawings, sketches, additional specifications, other clarifying details as appropriate, and allocate their serial number for the request.

d. Notwithstanding the foregoing, the Contractor may propose to the technical Authority in writing either by letter or some type of Defect Advice Form (A Contractor owned form) that certain unscheduled work should be carried out.

e. The Technical Authority will either reject or accept such proposal and advise the Contractor and Contracting Authority. Acceptance of the proposal is not to be construed as authorization for the work

to proceed. If required, the Technical Authority will then define the unscheduled work requirement in accordance with sub paragraph 3(c).

f. The Contractor will electronically submit its proposal to the Contracting Authority together with all price support and any qualifications, remarks or other information as requested.
The price support shall demonstrate the relationship between the scope of work, the Contractor's estimated costs and its selling price. It is a breakdown of the Contractor's unit rates, estimates of person hours by trade, estimate of material cost per item for both the Contractor and all of its subcontractors including quotations, estimates and any related schedule impact and an evaluation of the Contractor's time required to perform the unscheduled work.

g. The Contractor shall provide copies of purchase orders and paid invoices for subcontracts and/or material, including stocked items. The Contractor shall provide a minimum of two quotations for subcontracts or material. If other than the lowest or sole source is being recommended for quality and/or delivery considerations, this shall be noted. Upon request by the Contractor, the Contracting Authority shall be permitted to meet with any proposed subcontractor or material supplier for discussion of the price, and always with the Contractor's representative present.

h. After discussion between the Contracting Authority and the Contractor and if no negotiation is required, the Contracting Authority will seek confirmation from the Technical Authority to proceed with the work by signing the form noted above in sub paragraph 3(d). The Contracting Authority will then sign and authorize the unscheduled work to proceed.

i. In the event that the Technical Authority does not wish to proceed with the work, the Contracting Authority will cancel the proposed unscheduled work in writing.

j. In the event the negotiation involves a credit, the appropriate PWGSC form will be noted accordingly.

k. In the event that the Technical Authority requires unscheduled work of an urgent nature or an impasse has occurred in negotiations the commencement of unscheduled work should not be unduly delayed and should be processed as follows:
- The Contractor will complete PWGSC 1379 form indicating the estimated cost and provide it to the Contracting Authority.
- If the Technical Authority wishes to proceed, both the Technical Authority and the Contracting Authority will sign the completed PWGSC form. It will be understood and accepted that this cost will be a ceiling price cost and therefore only subject to downward adjustment.
- A serial number will be allocated and will include Suffix A.

The work will proceed with the understanding that following an audit of the Contractor's actual costs for completing the described work, the cost will be finalized at the ceiling price or lower, if justified by the audit. A new PWGSC form will then be completed with the finalized costs, signed and issued with the same Serial Number without the suffix "A", and bearing a notation that this form is replacing and canceling the form having the same Serial Number with the suffix "A".

NOTE: PWGSC forms bearing serial numbers with a suffix A shall not be included in any contract amendments and therefore no payment shall be made until final resolution of the prices and subsequent incorporation into the contract have been completed.

F4. Amendment to Contract or Formal Agreement

The contract will be amended from time to time in accordance with the contract terms in order to incorporate costs that have been authorized on the proper PWGSC form(s).

ANNEX G – QUALITY CONTROL / INSPECTION

G1 Quality Control Plan

The Contractor must implement and follow the Quality Control Plan (QCP), prepared in accordance with the latest issue (at contract date) of the ISO 10005 : 2005 Quality Management – Guidelines for quality plans, approved by both the Inspection and the Technical Authority. The QCP must describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of subcontractors. The Contractor must include a traceability matrix form the elements of the specified quality requirements to the corresponding paragraphs in the QCP. The QCP must be made available to both the Inspection and Technical Authority for review and approval within five (5) calendar days after contract award.

The documents referenced in the QCP must be made available within two (2) working days as and when requested by the Inspection Authority. The Contractor must make appropriate amendments to the QCP throughout the term of the Contract to reflect current and planned quality activities. Amendments to the QCP must be acceptable to the Inspection Authority and the Technical Authority.

G2 Inspection and Test Plan (ITP)

1. The Contractor must prepare an Inspection and Test Plan (ITP) comprising individual inspection and test plans for each specification item of this project in accordance with the Quality Standard and its Quality Control Plan (QCP). The ITP must be submitted to the Inspection Authority for review and amended by the Contractor to the satisfaction of the Inspection Authority.

    a. Each ITP must contain all inspection points identified in the Specification highlighting any mandatory points that must be witnessed by the Inspection Authority and other “hold” points imposed by the Contractor to ensure the quality of the work.

    b. Milestone delivery date for the ITP is given in the Contract however individual ITPs should be forwarded for review as developed.

2. Coding:

    a. Each ITP is to be coded for identification clearly demonstrating a systematic approach similar to the following (Contractor’s system should be defined in its QCP):
        i. Prefixes for Inspections, Tests and Trials:
            • prefix “1” is a contractor inspection – i.e.: 1H-10-01, 1H-10-02
            • prefix “2” is a contractor post repair test – i.e.: 2H-10-01; and
            • prefix “3” is a contractor post repair test – i.e.: 3H-10-01

    b. Specification items followed by assigned sequence numbers for inspection processes within each Specification item; and

    c. Cross reference to a verification document number.

G3 Inspection and Test Plan Criteria

Inspection criteria, procedures and requirements are stated in the specifications, drawings, technical orders and reference standards invoked by the Specification. Test and trial documentation may also be included or referenced in the Specification. An individual ITP is required for each specification item.

1. All ITPs must be prepared by the Contractor in accordance with the above criteria, its quality plan and must provide the following reference information:
    a. the ship’s name;
    b. the specification number item;

c. equipment/system description and a statement defining the parameter which is being inspected;
d. a list of applicable documents referenced or specified in the inspection procedure;
e. the inspection, test or trial requirements specified in the specification;
f. the tools and equipment required to accomplish the inspection;
g. the environmental conditions under which the inspections are to be conducted and the tolerances on the inspection conditions;
h. a detailed step by step procedure of how each inspection is to be performed, conformance parameters, accept/reject criteria and recording of results, deficiencies found and description of corrective action(s) required;
i. name and signature of the person who prepared the plan, date prepared and amendment level; and
j. names and signatures of the persons conducting and witnessing the inspection, test or trial.

2. Contractor Imposed Testing:

   a. Tests and trials in addition to those given in the specification must be approved by the Inspection Authority.

   b. Amendments: Amendment action for the ITPs must be ongoing throughout the refit and reflect the inspection requirements for unscheduled work. Amendments must be submitted as developed, but not less frequently than once every second week.

G4 Conduct of Inspection

1. Inspections must be conducted in accordance with the ITP and as detailed in G4.

2. The Contractor must provide its own staff or subcontracted staff to conduct inspections, test and trials; excepting that Technical Authority or Inspection Authority personnel may be designated in the specification in which case the Contractor must ensure that its own staff are provided in support of such inspection, test and/or trial.

3. The Contractor must ensure that the required conditions stated in the ITP prevail at the commencement of and for the duration of each inspection, test and/or trial.

4. The Contractor must ensure that personnel required for equipment operation and records taking during the inspection, test and/or trial are briefed and available at the start and throughout the duration of the inspection, test and/or trial. Tradesmen or FSRs who may be required to effect minor changes or adjustments in the installation must be available at short notice.

5. The Contractor is to coordinate the activities of all personnel taking part in each inspection, test and/or trial and ensure that safe conditions prevail throughout the inspection, test and/or trial.

G5 Inspection Records and Reports

1. The Contractor on the inspection record, test or trials sheets as applicable must record the results of each inspection. The Contractor must maintain files of completed inspection records consistent with the Quality Standard and its Quality Plan for this project.

2. The Contractor's QC representative (and the FSR when required) must sign as having witnessed the inspection, test or trial on the inspection record. The Contractor must forward originals of completed inspection records, together with completed test(s) and/or trials sheets to the Inspection Authority as they are completed.

3. Unsatisfactory inspection, test and/or trial results for which corrective action cannot be completed during the normal course of the inspection, test and/or trial will require the Contractor to establish and record the cause of the unsatisfactory condition to the satisfaction of the Inspection Authority. Representatives to Canada may assist in identification where appropriate.

4. Corrective action to remove the cause of unsatisfactory inspections must be submitted to the Inspection Authority in writing by the Contractor for approval before affecting such repairs and rescheduling of the unsatisfactory inspection, test and/or trial. Such notices must be included in the final records passed to the Inspection Authority.

5. The Contractor must undertake rectification of defects and deficiencies in the Contractor's installation or repair as soon as practicable. The Contractor is responsible to schedule such repairs at its own risk.

6. The Contractor must reschedule unsatisfactory inspections after any required repairs have been completed.

7. Quality Control, Inspection and Test records that substantiate conformance to the specified requirements including records of corrective actions must be retained by the Contractor for three (3) years from the date of completion or termination of the Contract and must be made available to the Inspection Authority upon request.

G6 Inspection and Trials Process

1. Drawing and purchase orders:

   a. Upon receipt of two (2) copies of each drawing or purchase order, the designated Inspection Authority will review its content against the provisions of the specification. Where discrepancies are noted the Inspection Authority will formally advise all concerned in writing, using the Discrepancy Notice. The resolution of any such discrepancy is a matter for consultation between the Contractor and other Crown Authorities.

NOTE: The Inspection Authority is NOT responsible for the resolution of discrepancies.

2. Inspection:

   a. Upon receipt and acceptance of the Contractor's ITP, inspection will consist of a number of inspection points supplemented by such other inspections, tests, demonstrations and/or trials as may be deemed necessary by the Inspection Authority to permit them to certify that the work has been performed in compliance with the provisions of the specification. The Contractor must be responsible for notifying the designated Inspection Authority of when the work will be available for inspection sufficiently in advance to permit the designated Inspection Authority to arrange for the appropriate inspection.

   b. The Inspection Authority will inspect the materials, equipment and work throughout the project against the provisions of the specification and where non-conformances are noted, will issue appropriate inspection non-conformance reports (NCR).

   c. The Contract requires the implementation of a Quality Assurance/Quality Control (QA/QC) system so the Inspection Authority requires the Contractor to provide a copy of its internal inspection report pertaining to a work item, before conducting the requested inspection. If third party inspections are required by the Contract the reports of these inspections must be submitted before the Work is inspected by the PWGSC Inspection Authority.

   d. Incorrect or false QA/QC documentation submitted to the Inspection Authority prior to inspection of the Work the Inspection Authority may issue an Inspection non-conformance report against the Work. In addition, a separate report may be issued against the Contractor's QA/QC system.

   e. Before carrying out any inspection, the PWGSC Inspection Authority must review the requirements for the Work and the acceptance and/or rejections standards to be applied. Where more than one standard or requirement are applicable, the order of precedence in the Contract will identify the priority.

3. Inspection Non-Conformance Report:

   a. An Inspection Non-Conformance Report will be issued for each non-conformance noted by the Inspection Authority. Each report will be uniquely numbered for reference purposes, will be signed and dated by the Inspection Authority and will describe the non-conformance.

   b. When the non-conformance has been corrected by the Contractor and has been re-inspected and accepted by the Inspection Authority, the Inspection Authority will update the report with applicable signature and date.

   c. At completion of the project the content of all Inspection Non-Conformance Reports which have not been signed off by the Inspection Authority will be transferred to the Acceptance documents before the Inspection Authority's certification of such documents.

4. Tests, trials and demonstrations

   a. To enable the Inspection Authority to certify that the Work has been performed satisfactorily and in accordance with the Contract and specification, the Contractor must schedule, co-ordinate, perform and record all specified tests, trials and demonstrations required.

   b. Where the specification contains a specific performance requirements for any component, equipment, sub-system or system the Contractor must test each component, equipment, sub-system or system to the satisfaction of the Inspection Authority to prove that the specified performance has been achieved and that the component, equipment, sub-system or system perform as per specification.

   c. Tests, trials and demonstrations must be conducted in accordance with a logical, systematic schedule which must ensure that all associated components and equipment are proven before sub-system demonstrations or testing, and that the sub-systems are proven before system demonstration or testing.

   d. Where the specification does not contain specific performance requirements of any component, equipment, sub-system or system, the Contractor must demonstrate such component, equipment, sub-system or system to the satisfaction of the Inspection Authority.

   e. The Contractor must submit its ITP as detailed in G2.

   f. The Contractor must co-ordinate each test, trial and demonstration with all interested parties including the Inspection Authority, Contracting and Technical Authorities, regulatory authorities, Classification Society, subcontractors etc. The Contractor must provide the Inspection Authority and other Crown Authorities with a minimum of five (5) working days notice of each scheduled test, trial or demonstration.

   g. The Contractor must keep written records of all tests, trials and demonstrations conducted as detailed in G5. The Contractor may utilize the PWGSC Standards Tests & Trials Record Sheets which can be customized by the Contractor to suit individual test or trial requirements. These record sheets are available from the Inspection Authority in digital format.

   h. The Contractor must in all respects be responsible for the conduct of all tests and trials in accordance with the requirements of the Contract.

   i. The Inspection Authority and the Technical Authority reserve the right to defer commencement of or continuation with any sea trials for any reasonable cause, including but not limited to:

      i. adverse weather;
      ii. visibility;

iii. equipment failure or degradation;
iv. lack of qualified personnel; and
v. inadequate or non-compliance with safety standards.

ANNEX H – FINANCIAL BID PRESENTATION SHEET

H1 Price for Evaluation:

| | | |
|---|---|---|
| A) | Known Work<br><br>For work as stated in Part 1 – GENERAL INFORMATION, article 1.2, specified in Annex A – Statements of Work (CCGS Carriere and CCGS Teather) and detailed in the attached ANNEX H – Financial Bid Presentation Sheet – Appendix 1 - Pricing Data Sheet (CCGS Carriere) and Appendix 2 - Pricing Data Sheet (CCGS Teather) for a FIRM PRICE of: | $_____ |
| B) | Unscheduled Work – Contractor labour cost<br><br>Estimated labour hours at a firm charge out labour rate including overhead and profit for evaluation purposes only:<br><br>1000 person hours x $_____per hour for a PRICE of: See Annex H, article H2.1 and H2.2 below.<br><br>Overtime premium for time and one half: Estimated hours for evaluation purposes only: 100 person hours x $_____per hour for a PRICE of: See Annex H, article H3 below.<br><br>Overtime premium for double time: Estimated hours for evaluation purposes only: 100 person hours x $_____ per hour for a PRICE of: See Annex H, article H3 below. | $_____<br><br>$_____<br><br>$_____ |
| C) | Daily Service Fees<br><br>For evaluation purpose only as per Annex H, article H4:<br><br>Ten (10) working days x $_____firm daily service fee<br><br>Four (4) non-working days x $_____firm daily service fee | $_____<br><br>$_____ |
| D) | Vessel Transfer Cost<br><br>For evaluation purpose only as per Annex H, article H6:<br><br>Proposed shipyard/ship repair facility _____ | $_____ |
| E) | Ventilated and Heated Shelter<br><br>For evaluation purposes only as per Annex H, article H7:<br><br>Ventilated and heated shelter $_____ | $_____ |
| F) | EVALUATION PRICE<br><br>[A + B + C + D + E] for an EVALUATION PRICE (applicable taxes excluded) of: | $_____ |

H2 Unscheduled Work

The Contractor will be paid for unscheduled work arising as authorized by Canada. The authorized unscheduled work will be calculated as follows:

Number of hours (to be negotiated) x $ _____for the Contractor's firm hourly charge-out labour rate. This rate is to include consumables, overhead and profit. The net laid-down cost of materials which may include a mark-up of ten (10) percent plus applicable taxes. The firm hourly charge-out labour rate and the material mark- up will remain firm for the duration of the Contract including any subsequent amendments.

H2.1: Notwithstanding definitions or usage elsewhere in the Contract or in the Contractor's Cost Management System, when negotiating hours for unscheduled work PWGSC will consider only those hours of labour directly involved in the production of the subject work package.

H2.2: Allowance for related labour costs such as management, all supervision, purchasing and material handling, quality assurance and reporting, first aid, gas free certification inspecting and reporting and estimating and preparing unscheduled work submissions will be included as overhead for the purposes of determining the charge-out labour rate as entered in section H2 above.

H2.3: The ten (10) percent mark-up rate for material will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowable in the charge out labour rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

**Pro-rated Prices Unscheduled Work**

Hours and prices for unscheduled work shall be based on comparable historical data applicable to similar work at the same facility, or shall be determined by pro-rating the quoted Work costs in the Contract when in similar areas of the vessel.

H3 Overtime

The Contractor must not perform any overtime under the Contract unless authorized in advance in writing by the Contracting Authority. There will be no overtime payment for Known Work. Any request for payment must be accompanied by a copy of the overtime authorization and a report containing the overtime performed pursuant to the written authorization. Overtime shall not be paid unless authorized in writing by the Contracting Authority. Payment for authorized overtime will be calculated as follows:

For unscheduled work, the Contractor will be paid the authorized overtime hours at the following charge-out labour rates:

a. Time and One Half**: $ _____ per hour; or

b. Double Time***: $ _____ per hour

This rate shall be a blended rate for all classes of labor, engineering and foreperson and shall include all overheads, supervision and profit.

These rates will remain firm for the duration of the Contract, including all amendments and are subject to audit if considered necessary by Canada.

* Regular time is defined as an 8 hour work day

** Overtime Time and One-Half Rate is defined as time in excess of the regular time*,.

*** Overtime Double Time Rate is defined as Sundays and Statutory Holidays Pro-rated Prices

H4 Daily Services Fees

In the event of a delay in the performance of the Work and if such delay is recognized and agreed upon by the Contracting Authority as being attributable to Canada, Canada agrees to pay the Contractor the daily service fee described below for each day the Work is delayed. This fee shall be the sole liability of Canada to the Contractor for the delay.

The firm daily services fee is:

a. For a working day: $_____

b. For a non-working day: $_____

The above fees shall include but not be limited to all aspects of the following costs: project management services, administrative support, production services, quality assurance, material support, planned maintenance and ship services and all other resources and direct costs required to maintain the vessel at the Contractor's facility. These fees are firm and not subject to any additional charges for mark up or profit.

H5 Vessel, Refit, Repair or Docking Costs

The following costs must be included in the price:

1. Ship services: include all costs for ship services such as water, steam, electricity etc. that are required for vessel maintenance for the duration of the Contract.

2. Docking and undocking includes:

   a. all costs resulting from dry docking, wharfage, security, shoring, shifting and/or moving of the vessel within the successful Bidder's facility;

   b. the cost of services to tie up the vessel alongside and to cast off.

   Unless specified otherwise, the vessel will be delivered by Canada to the successful Bidder's facility alongside a mutually agreed safe transfer point, afloat and upright, and the successful Bidder will do the same when the Work is completed. The cost of services to tie up the vessel alongside and to cast of must be included in the evaluation price.

3. Field services representatives/supervisory services: consist of the costs for field service representatives and/or supervisory services including manufacturers' representatives, engineers, etc.

   These services must not be an extra charge except where unscheduled work requiring these services is added to the Contract.

4. Removals: include all costs for removals necessary to carry out the Work and will be the responsibility of the successful Bidder regardless if they are identified in the specification, except those removals not apparent when viewing the vessel or examining the drawings. The successful Bidder will also be responsible for safe storage of removed items and reinstallation of all items on completion of the Work. The successful Bidder will be responsible for renewal of components damaged while in their custody including during removal or reinstallation.

5. Sheltering, staging, cranage and transportation: include the cost of all sheltering, staging including handrails, carnage and transportation to carry out the Work as specified.

The successful Bidder will be responsible for the cost of any necessary modification of these facilities in order to meet applicable safety regulations.

H6 Vessel Transfer Costs

1. The evaluation price must include the cost for transferring the vessel from its home port to the shipyard/ship repair facility where the Work will be performed and the cost of transferring the vessel to its home port following completion of the Work, in accordance with the following:

   a. The Bidder must provide the location of the shipyard/ship repair facility where it proposes to perform the Work together with the applicable vessel transfer cost from the list provided under H6, paragraph 2 of this section, which shall be entered into Annex H – Financial Bid Presentation Sheet, H1 Price for Evaluation, item D);

   b. If the list provided under H6, paragraph 2 of this section does not provide the shipyard/ship repair location where the Bidder intends to perform the Work, the Bidder must advise the Contracting Authority of its proposed location for performing the Work in writing at least ten (10) calendar days prior to bid closing date. The Contracting Authority will confirm to the Bidder, in writing, at least five (5) calendar days before the bid closing date, the location of the shipyard/ship repair and the applicable vessel transfer cost.

      A bid that specifies a location for executing the Work which is not on the list under H6, paragraph 2 of this section and for which a notification in writing has not been received by the Contracting Authority as required, will be considered non-responsive.

2. Vessel information and list of shipyard/ship repair facilities and applicable vessel transfer costs

   Vessels: CCGS Carriere and CCGS Teather
   Home Port: Burlington, Ontario

   Transfer costs in the case of vessels transferred using a government delivery crew include the fuel cost at the vessel's most economical speed of transit and for unmanned refits only, crew transportation costs for the delivery crew based on the location of the vessel's home port and the shipyard/ship repair facility. Crew transportation costs do not include any members of the delivery crew who remain at the shipyard/ship repair facility in order to discharge project responsibility related to the vessel being transferred.

   Transfer costs in the case of the vessels transferred unmanned by either commercial towing, railway, highway or other suitable means of transportation must be:

   i. included as part of the Bidder's financial bid in the case where the Bidder is responsible for the transfer; or
   ii. identified as the applicable vessel transfer cost, as given in the list below, in the case when Canada is responsible for the transfer.

**Shipyard/Ship Repair Facility - Applicable Vessel Transfer Costs (per Vessel)**
**Unmanned only: CCGS Carriere and CCGS Teather**

| Company | City/Province | Unmanned Transfer Cost (per Vessel) |
|---|---|---|
| Caraquet Marine Industry Ltd. | Caraquet, NB | $21,974.00 |
| Canadian Maritime Engineering Limited | North Sydney, NS | $39,242.00 |
| Chantier Forillon | Gaspe, QC | $19,598.00 |
| Chantier Matane | Matane, QC | $15,410.00 |
| Davie Industries Inc. | Levis, QC | $10,728.00 |
| Heddle Marine | Hamilton, ON | $212.00 |
| Hike Metal Products Ltd | Wheatley, ON | $5,717.00 |
| MetalCraft Marine Inc. | Kingston, ON | $3,882.00 |
| Oceans Industries Inc. | Saint-Bernard-Sur-Mer, QC | $11,693.00 |
| Verreault Navigation Inc. | Les Mechins, QC | $15,975.00 |

All Prices in CAD

## H7 Ventilated and Heated Shelter

The evaluation price must include the cost for providing and maintaining a ventilated and heated shelter as required. The requirement to provide the shelter lies solely with the Contractor. Failure to protect the Work and/or the Ship that causes deficiencies and/or damages will result in the Contractor repairing the damage to the level of Annex A - Statement of Work at no additional cost to Canada.

ANNEX H – Appendix 1 – PRICING DATA SHEET (CCGS CARRIERE)

| Ref # | Spec # | Description | Total Hours | Total Labour Cost ($) | Total Material Cost ($) | Total FSR & Sub-Contractor Cost ($) | Total Firm Price ($) | Unit Cost ($) |
|---|---|---|---|---|---|---|---|---|
| 2.0 | | SERVICES | | $ | $ | $ | $ | |
| | 2.5.5 | Unit rate/Kw-Hr for estimated consumption of 10,000 kw-hr | | | | | | $ |
| | 2.7.1 | Unit rate/hr for crane supply | | | | | | $ |
| 4.0 | | DRY DOCKING | | $ | $ | $ | $ | |
| 5.0 | | UNDERWATER HULL INSPECTION | | $ | $ | $ | $ | |
| | 5.3.1.7 | Unit price/m² painting | | | | | | $ |
| | 5.3.1.7 | 200 $m^2$ Painting Services | | $ | $ | $ | $ | |
| | 5.3.1.10 | Bead/m Welding Services | | | | | | $ |
| | 5.3.1.10 | 50 m Welding Services | | $ | $ | $ | $ | |
| 6.0 | | ANODES | | $ | $ | $ | $ | |
| | 6.3.1.3 | Replacement of 10 Anodes | | | | | | $ |
| | 6.3.1.4 | Unit rate/ bolted anode replacement | | | | | | $ |
| | 6.3.1.4 | Unit rate/ welded anode replacement | | | | | | $ |
| | 6.3.2 | Per Sea Chest Removal and Replacement | | | | | | $ |
| | 6.3.2.2 | Replacement of 7 type MME26AA hull anodes | | $ | $ | $ | $ | |
| | 6.3.2.3 | Replacement of 5 type MME28AB disk anodes | | $ | $ | $ | $ | |
| | 6.3.3.1 | Replacement of 4 type MME26AA thruster tunnel anodes | | $ | $ | $ | $ | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7.0 | | STORM VALVES AND SEA CONNECTIONS INSPECTION | | $ | $ | $ | $ | |
| 8.0 | | RUDDERS AND BEARING INSPECTION | | $ | $ | $ | $ | |
| 9.0 | | ANCHOR AND CHAIN INSPECTION | | $ | $ | $ | $ | |
| 10.0 | | PROPELLER SHAFT SEALS AND SHAFT CLEARANCES | | $ | $ | $ | $ | |
| | | TOTALS | | $ | $ | $ | $ | |

ANNEX H – Appendix 2 – PRICING DATA SHEET (CCGS TEATHER)

| Ref # | Spec # | Description | Total Hours | Total Labour Cost ($) | Total Material Cost ($) | Total FSR & Sub-Contractor | Total Firm Price ($) | Unit Cost ($) |
|---|---|---|---|---|---|---|---|---|
| 2.0 | | SERVICES | | $ | $ | $ | $ | |
| | 2.5.5 | Unit rate/Kw-Hr for estimated consumption of | | | | | | $ |
| | 2.7.1 | Unit rate/hr for crane supply | | | | | | $ |
| 4.0 | | DRY DOCKING | | $ | $ | $ | $ | |
| 5.0 | | UNDERWATER HULL INSPECTION | | $ | $ | $ | $ | |
| | 5.3.1.7 | Unit price/$m^2$ painting | | | | | | $ |
| | 5.3.1.7 | 200 $m^2$ Painting Services | | $ | $ | $ | $ | |
| | 5.3.1.10 | Bead/m Welding Services | | | | | | $ |
| | 5.3.1.10 | 50 m Welding Services | | $ | $ | $ | $ | |
| 6.0 | | ANODES | | $ | $ | $ | $ | |
| | 6.3.1.3 | Replacement of 10 Anodes | | | | | | $ |
| | 6.3.1.4 | Unit rate/ bolted anode replacement | | | | | | $ |
| | 6.3.1.4 | Unit rate/ welded anode replacement | | | | | | $ |
| | 6.3.2 | Per Sea Chest Removal and Replacement | | | | | | $ |
| | 6.3.2.2 | Replacement of 7 type MME26AA hull anodes | | $ | $ | $ | $ | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 6.3.2.3 | Replacement of 5 type MME28AB disk anodes | | $ | $ | $ | $ | |
| | 6.3.3.1 | Replacement of 4 type MME26AA thruster tunnel | | $ | $ | $ | $ | |
| 7.0 | | STORM VALVES AND SEA CONNECTIONS INSPECTION | | $ | $ | $ | $ | |
| 8.0 | | RUDDERS AND BEARING | | $ | $ | $ | $ | |
| 9.0 | | ANCHOR AND CHAIN INSPECTION | | $ | $ | $ | $ | |
| 10.0 | | PROPELLER SHAFT SEALS AND SHAFT CLEARANCES | | $ | $ | $ | $ | |
| | | TOTALS | | $ | $ | $ | $ | |

ANNEX I – VESSEL CUSTODY

I1 Vessel Custody

1. This work is going to take place with the vessel “out of commission” and therefore in the care, control and custody of the Contractor.

2. An ACCEPTANCE CERTIFICATE – ASSUMPTION OF CUSTODY OF CANADIAN GOVERNMENT SHIPS BY CONTRACTORS (attached as Annex I - Appendix 1) shall be completed as required and a copy passed to the Inspection Authority.

3. To facilitate this turnover, representatives of the Contractor and Canada shall confirm the vessel condition of the vessel.

4. A vessel condition report shall be appended to the above noted Certificate and shall be accompanied by colour photographs and/or video in either conventional or digital format.

5. When the vessel is to be returned to the care, control and custody of Canada, an ACCEPTANCE CERTIFICATE – RESUMPTION OF CUSTODY OF CANADIAN GOVERNMENT SHIPS BY THE CLIENT DEPARTMENT (attached as Annex I - Appendix 2) shall be completed and a signed copy passed to Canada for distribution.

ANNEX I – Appendix 1 - ACCEPTANCE CERTIFICATE

ASSUMPTION OF CUSTODY OF CANADIAN GOVERNMENT SHIPS BY CONTRACTORS

ACCEPTANCE OF _____.

1. The undersigned, on behalf of the Department of Canadian Coast Guard and of _____ acknowledge to have handed over and receive respectively CCGS Carriere for the purpose of refit, all in accordance with the terms and conditions of PWGSC Contract Number _____ and such documents which form part of said Contract.

2. It is mutually agreed by all parties that the condition report by compartment or area shall be considered as an addendum to this agreement; and shall be a valid document in the taking over of the vessel by the Contractor, even if the inspection and signing occur after the signing of the agreement but within the agreed ten (10) day period.

SIGNED AT _____PROVINCE _____ ON

THE _____ DAY OF _____ (Month), 2014,

AT _____HOURS.

FOR: _____
(CONTRACTOR)

FOR: _____
Department of Canadian Coast Guard

WITNESSED BY: _____
Public Works and Government Services Canada

ANNEX I – Appendix 2 - ACCEPTANCE CERTIFICATE

ACCEPTANCE CERTIFICATE

RESUMPTION OF CUSTODY OF CANADIAN GOVERNMENT SHIPS BY THE CLIENT DEPARTMENT

ACCEPTANCE OF _____.

1. The undersigned, on behalf of _____and of the Department of Canadian Coast Guard, acknowledge to have handed over and to have received respectively the CCGS Carriere, said vessel having been received by _____on _____(date), for the purpose of refit in accordance with the terms and conditions of PWGSC Contract Number _____.

2. It is mutually agreed by all parties that the liabilities and responsibilities of _____, as defined in Article 9 of PWGSC 1029 – Supplemental General Conditions for Ship Repairs, for a vessel out of commission, shall automatically cease as at _____ (hours) on _____ (date).

3. That effective from _____(hours) on the _____(date), Article 8 of PWGSC 1029 for a vessel in commission shall apply, and that responsibility of the care and protection of said vessel shall revert to Canada.

SIGNED AT _____PROVINCE _____ ON

THE _____ DAY OF _____ (Month), 2014,

AT _____HOURS.

FOR: _____
(CONTRACTOR)

FOR: _____
Department of Canadian Coast Guard

WITNESSED BY: _____
Public Works and Government Services Canada

ANNEX I – Appendix 3 - ACCEPTANCE CERTIFICATE

ASSUMPTION OF CUSTODY OF CANADIAN GOVERNMENT SHIPS BY CONTRACTORS

ACCEPTANCE OF _____.

1. The undersigned, on behalf of the Department of Canadian Coast Guard and of _____ acknowledge to have handed over and receive respectively CCGS Teather for the purpose of refit, all in accordance with the terms and conditions of PWGSC Contract Number _____ and such documents which form part of said Contract.

2. It is mutually agreed by all parties that the condition report by compartment or area shall be considered as an addendum to this agreement; and shall be a valid document in the taking over of the vessel by the Contractor, even if the inspection and signing occur after the signing of the agreement but within the agreed ten (10) day period.

SIGNED AT _____PROVINCE _____ ON

THE _____ DAY OF _____ (Month), 2014,

AT _____HOURS.

FOR: _____
(CONTRACTOR)

FOR: _____
Department of Canadian Coast Guard

WITNESSED BY: _____
Public Works and Government Services Canada

ANNEX I – Appendix 4 - ACCEPTANCE CERTIFICATE

ACCEPTANCE CERTIFICATE

RESUMPTION OF CUSTODY OF CANADIAN GOVERNMENT SHIPS BY THE CLIENT DEPARTMENT

ACCEPTANCE OF _____.

1. The undersigned, on behalf of _____and of the Department of Canadian Coast Guard, acknowledge to have handed over and to have received respectively the CCGS Teather, said vessel having been received by _____on _____(date), for the purpose of refit in accordance with the terms and conditions of PWGSC Contract Number _____.

2. It is mutually agreed by all parties that the liabilities and responsibilities of _____, as defined in Article 9 of PWGSC 1029 – Supplemental General Conditions for Ship Repairs, for a vessel out of commission, shall automatically cease as at _____ (hours) on _____ (date).

3. That effective from _____(hours) on the _____(date), Article 8 of PWGSC 1029 for a vessel in commission shall apply, and that responsibility of the care and protection of said vessel shall revert to Canada.

SIGNED AT _____PROVINCE _____ ON

THE _____ DAY OF _____ (Month), 2014,

AT _____HOURS.

FOR: _____
(CONTRACTOR)

FOR: _____
Department of Canadian Coast Guard

WITNESSED BY: _____
Public Works and Government Services Canada

ANNEX J - DELIVERABLES / CERTIFICATIONS

J1 Mandatory Tender Deliverables Check List

Notwithstanding deliverable requirements specified within the bid solicitation and its associated Statement of Work (Annex A), mandatory deliverables that must be submitted with the Bidder's tender to be deemed responsive, are summarized below.

The Bidder must submit a completed Annex J1 – Deliverables/Certifications.

The following are mandatory and the Bidder's submission will be evaluated against the requirements as defined herein. The Bidder must be determined to be compliant on each item to be considered responsive.

| Item | Description | Completed and Attached |
|---|---|---|
| 1 | Invitation to Tender document part 1, page 1, completed and signed; | |
| 2 | Completed Annex H - Financial Bid Presentation Sheet, clauses H1 through H7; | |
| 3 | Completed Pricing Data Sheet, as per Annex H – Appendix 1 & 2, as detailed in PART 3, article 3.2, Section II; | |
| 4 | Completed Annex J1 Deliverables/Certifications; | |
| 5 | Changes to any applicable laws as per PART 2 – Bidder Instructions, article 2.4; | |
| 6 | Integrity provisions – Associated information, as per PART 5 – Certifications, 5.1.1; | |
| 7 | Vessel transfer cost as per Annex H – article H6, 2; | |
| 8 | Docking Facility, as per clause 6.3 | |
| 9 | Proof of good standing with the Workers' Compensation Board, as per PART 6 – Financial and other Requirements, article 6.4; | |
| 10 | Proof of valid Labour Agreement or similar instrument covering the work period, as per PART 6 – Financial and other Requirements, article 6.5; | |
| 11 | Preliminary work schedule as per PART 6 – Financial and other Requirements, article 6.6; | |
| 12 | Fueling and Disembarking Procedures as per PART 6 – Financial and other Requirements, article 6.7; | |
| 13 | If registered its valid ISO 9001-2008 Certification, as per PART 6 – Financial and other Requirements, article 6.8; | |
| 14 | Objective evidence of documented Health and Safety System as per PART 6 – Financial and other Requirements, article 6.9; | |
| 15 | Objective evidence of documented Fire Protection, Fire Fighting and Training Procedure as per PART 6 – Financial and other Requirements, article 6.10; | |
| 16 | Insurance Requirements as per PART 6 – Financial and other Requirements, article 6.12; | |
| 17 | Proof of welding certification as per PART 6 – Financial and other Requirements, article 6.13; | |
| 18 | Project Management as per PART 6 – Financial and other Requirements, article 6.14; | |
| 19 | List of subcontractors as per PART 6 – Financial and other Requirements, article 6.15; | |
| 20 | Example of its Quality Control Plan as per PART 6 – Financial and other Requirements, article 6.16; | |
| 21 | Example of an Inspection and Test Plan as per PART 6 – Financial and other Requirements, article 6.17; | |
| 22 | Details of Environmental Emergency Response Plan, Details of Formal Environmental Training as per PART 6 – Financial and other Requirements, article 6.18. | |

J2 Deliverables after Contract Award

| Item | Description | Reference | Due by: |
|---|---|---|---|
| 1 | Insurance requirements as per Annex D | Article 7.12 and Annex D | Ten (10) working days after Contract Award |
| 2 | Revised work schedule | Article 7.16 | five (5) calendar days after Contract Award |
| 3 | The Contractor's Quality Control Plan | Article 7.21 | five (5) calendar days after Contract Award |
| 4 | The list of Government specialized loaned equipment that the Contractor intends to request | Article 7.28 | Three (3) calendar days after Contract Award |

# CCGS Constable Carriere
# Dry-Docking 2015

Specification No: 804.15

Date: 2015-10-13

Prepared by Marine Engineering
Canadian Coast Guard
Central & Arctic Region
Marine Engineering
Integrated Technical Services
520 Exmouth Street, Sarnia, ON N7T 8B1

## TABLE OF CONTENTS

## 1.0 GENERAL NOTES

## 1.1 IDENTIFICATION

1.1.1 These General Notes describe the CCG requirements applicable to all accompanying Technical Specifications.

## 1.2 REFERENCES

1.2.1 Applicable regulations and documentation:

| FSSM Procedures | Title | References |
|---|---|---|
| 7.B.2. | Fall Protection | https://buyandsell.gc.ca/cds/public/2014/07/28/9747369257f68915028d19bbe5942a0c/ABES.PROD.PW_OLZ.B008.E6139.ATTA012.PDF |
| 7.A.1 | Assessing Risk | |
| 7.B.3 | Entry Into Confined Spaces | |
| 7.B.4 | Hotwork | |
| 7.B.5 | Lockout and Tagout | |
| 7.E.5 | Handling, Storage & Disposal of Hazardous Material | |
| 10.A.6 | Paint and Other Coatings | |
| 7.B.8 | Use of Halocarbons | |
| 7.A.12 | Potable Water Quality | |
| 10.A.7 | Contractor Safety and Security | |
| Ship Specific per 7.A.10 | Vessel Specific - Asbestos Management Plan | Available from: CCG Chief Engineer |
| | | |
| **Publications** | | |
| TP3177E | Standard for the Control of Gas Hazards in Vessels to be Repaired or Altered | Transport Canada |
| TP127E | Transport Canada Marine Safety Electrical Standard | Transport Canada |
| IEEE 45 | Recommended Practice for Electrical Installation on Ships | |
| CGTS-3(E) | Specification for the Installation of Shipboard Electronic Equipment | Available from: CCG/ITS |
| CSA W47.1 | Certification of Companies for Fusion Welding of Steel Structures Division 2 Certification | CSA |
| CSA W47.2 | Certification of Companies for Fusion | CSA |

| | | |
|---|---|---|
| | Welding of Aluminum | |
| CSA W59 | Welded Steel Construction – Metal Arc Welding | CSA |
| CSA W59.2 | Welded Aluminum Construction | CSA |
| **Acts** | | |
| CSA | Canada Shipping Act | |
| CLC | Canada Labour Code | |
| | | |
| **Regulations** | | |
| MOHS | Maritime Occupational Health and Safety | |
| | | |

## 1.3 OCCUPATIONAL HEALTH AND SAFETY

1.3.1 The Contractor and all sub-contractors shall follow Occupational Health and Safety (OHS) procedures in accordance with applicable federal and provincial OHS regulations ensuring that Contractor activities are carried out in a safe manner and do not endanger the safety of any personnel.

1.3.2 The Contractor and Contractor's employees will not have access to the vessel's washrooms and crew mess facilities. The Contractor shall provide the necessary amenities for the Contractor's and sub-contractors employees as required.

1.3.3 The Contractor shall ensure all applicable safety precautions including equipment lock outs and tag outs are implemented prior to the start of work.

## 1.4 ACCESS TO WORKSITE

1.4.1 The Contractor shall ensure the TA and CG staffs have unrestricted access to the worksite at all times during the contract period.

## 1.5 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

1.5.1 The Contractor shall provide the TA with Material Safety Data Sheets (MSDS) for all Contractor supplied WHMIS controlled products.

1.5.2 The TA will provide the Contractor with access to MSD sheets for all controlled products on the ship for all specified work items.

## 1.6 SMOKING IN THE WORK SPACE

1.6.1 The Contractor shall ensure compliance with the Non- Smokers' Health Act. The Contractor shall ensure that every employer, and any person acting on behalf of an employer, shall ensure that persons refrain from smoking in any work space under the control of the employer. The Contractor shall ensure that there is absolutely no smoking onboard the vessel.

## 1.7 CLEAN AND HAZARD FREE WORKSITE

1.7.1 The Contractor, during the work period shall maintain those areas of the vessel which Contractor personnel use to access those areas where work is to be undertaken, in a clean condition, free from debris and remove garbage daily.

1.7.2 Areas that pose a hazard as a result of the specification work are to be secured and clearly identified by the Contractor with signage to advise and protect all personnel from the hazard in accordance with applicable Canada Labour Code requirements.

1.7.3 The Contractor shall be responsible for the removal of all garbage generated from the work of this specification and for returning the vessel to the state of cleanliness in which the vessel was at the start of the contract period.

## 1.8 FIRE PROTECTION

1.8.1 The Contractor shall ensure the isolation, removal and installation of fire detection and suppression systems or any components thereof, is performed by a qualified technician. When the fire detection or fire suppression system is deactivated or disabled by the Contractor during the contract, the system(s) shall be recertified by a qualified technician as fully functional. A signed and dated original copy of the certificate shall be delivered to the TA before the end of the contract.

1.8.2 The Contractor shall notify the TA and obtain written approval from the TA prior to disturbing, removing, isolating, deactivating / disabling or locking out any part of the fire detection or suppression systems, including heat and smoke sensors.

1.8.3 The Contractor shall ensure protection against fire at all times including when working on the ship’s fire detection and / or suppression system(s) in a means acceptable to and approved by the TA and the FSSM.

1.8.4 Failure to take the necessary precautions while performing work on the vessel’s fire suppression system(s) could result in the accidental discharge of the fire suppression agent(s). The systems shall be returned to its original condition and adhere to all federal

and provincial regulations. The Contractor must recharge and certify systems related to all accidental discharges at no charge to Canada.

## 1.9 TOUCH-UP / DISTURBED PAINT

1.9.1 Unless stated otherwise the Contractor shall supply and apply two coats of marine primer compatible with the vessel's existing coating system to all new and/or disturbed metal surfaces.

## 1.10 CCG EMPLOYEES AND OTHERS ON THE VESSEL

1.10.1 CCG / DFO employees and other personnel such as manufacturer's representatives and/or TCMS or Class surveyors may carry-out other work including work items not included in this specification, onboard the vessel during this work period. Every effort will be made by the TA to ensure this work and the associated inspections and/or surveys do not interfere with the Contractor's work. The Contractor will not be responsible for coordinating the related inspections or payment of inspection fees for this work unless otherwise specified.

## 1.11 REGULATORY INSPECTIONS AND/OR CLASS SURVEYS

1.11.1 The Contractor shall contact, coordinate and schedule all regulatory inspections and/or class surveys by the applicable authority: i.e. Lloyd's, TCMS, HC, Environment Canada or others as required by the specification.

1.11.2 Any documentation generated by the above inspections and/or surveys to show that the inspections and/or surveys were conducted (i.e. original signed and dated certificates) shall be provided to the TA.

1.11.3 The Contractor shall not substitute inspection by the TA for the required regulatory inspections or class surveys.

1.11.4 The Contractor shall provide timely advance notification (minimum of 24 hours) of scheduled regulatory inspections and/or class surveys to the TA so they may witness the inspection.

## 1.12 DOCUMENTATION

1.12.1 Prior to the close of contract, the Contractor shall submit original hard copies and PDF copies of all requested readings, reports and other documentation to the TA. Hard copies shall be printed on Contractor, sub-Contractor or Manufacturer's letterhead, signed by the

originator, bound in standard 3-ring binders and indexed by specification number. PDF copies shall be emailed as scanned originals.

1.12.2 Recorded dimensions shall be to a precision of three decimal places (unless otherwise stated) in the measuring system currently in use on the vessel.

1.12.3 The Contractor shall provide to the TA current and valid calibration certificates for all instrumentation used during specified tests and trials.

## 1.13 CONTRACTOR SUPPLIED MATERIALS AND TOOLS

1.13.1 The Contractor shall ensure all materials are new and unused.

1.13.2 The Contractor shall ensure replacement material such as jointing, packing, insulation, small hardware, oils, lubricants, cleaning solvents, preservatives, paints, coatings etc. are in accordance with the equipment manufacturer's drawings, manuals and/or instructions.

1.13.3 Where no particular item is specified or where substitution shall be made, the TA shall approve the substituted item in writing. The Contractor shall provide information about materials used, certificate of grade and quality of various materials to the TA prior to use.

1.13.4 The Contractor shall provide all equipment, devices, tools and machinery such as cranage, staging, scaffolding and rigging necessary for the completion of the work in this specification.

1.13.5 The Contractor shall provide waste disposal services for any oil, oily waste or other hazardous or controlled waste generated by the work of this specification. The Contractor shall provide waste disposal certificates for all of the above generated waste and the disposal certificates shall indicate that the disposal was in accordance with Federal, Provincial and Municipal regulations in effect.

## 1.14 GOVERNMENT SUPPLIED MATERIALS & TOOLS

1.14.1 All tools are Contractor supplied unless otherwise stated in the technical specifications.

1.14.2 Where tools are supplied by the TA they shall be returned by the Contractor in the same condition as when they were borrowed. Borrowed tools shall be inventoried and signed for by the Contractor on receipt and return to the TA.

1.14.3 Any Government supplied material (GSM) shall be received by the Contractor and stored in a secure warehouse or storeroom having a controlled environment appropriate for the equipment as per manufacturer's instructions.

## 1.15 RESTRICTED AREAS

1.15.1 The Contractor shall not enter the following areas except to perform work as required by the specifications: all cabins, offices, workshops, Engineers' office, Wheelhouse, Control Room, all washrooms, Galley, Mess Rooms, Lounge areas and any other areas restricted by signage.

1.15.2 The Contractor shall give the TA 24 hours advance notice prior to working in any accommodation areas or office spaces. This will allow CCG adequate time to move personnel and secure the areas.

## 1.16 CONTRACTOR INSPECTIONS AND PROTECTION OF EQUIPMENT AND THE WORKSITE

1.16.1 Before the Contractor starts any work on the vessel the Contractor's Quality Assurance Representative and the TA shall walk through each space and area where work is to take place, including access and removal routes and areas adjacent to those where the work is to be done as a result of this specification. The Contractor's Quality Assurance Representative shall take digital pictures of each area showing the outfit therein and download the photos in JPG format onto a CD or DVD. Each picture shall be dated and labeled as to the location on the vessel. Two copies of this CD or DVD are to be provided to the TA for reference purposes within 48 hours of the start of the contract.

1.16.2 The Contractor shall coordinate an inspection with the TA on the condition and location of items to be removed prior to carrying out the specified work or to gain access to a location to carry out the work.

1.16.3 Any damage incurred as a result of the Contractor's work and that is attributable to the Contractor's work performance shall be repaired by the Contractor at no cost to Canada. Materials used in any replacement or repairs shall meet the criteria for Contractor supplied material noted above in section Contractor Supplied Materials and Tools.

1.16.4 The Contractor shall protect all equipment and surrounding areas from damage. Work areas are to be protected from the ingress of water, welding and blasting grit etc. Temporary covers to work areas shall be installed.

1.16.5 The Contractor shall protect the vessel from the possibility of vermin infestation (insect/mammal). If an infestation does occur during the contract period the Contractor

shall bear all costs to ensure the vessel is made vermin free before the vessels departure and contract completion.

1.16.6 Once all known work and final clean-up has been completed the Contractor's QA Representative and the TA shall perform a 'walk through' of the vessel to view all areas where work was performed by the Contractor. Any deficiencies or damage shall be noted and compared with the pictures, and if deemed to be caused by the Contractor, shall be the responsibility of the Contractor and shall be repaired by the Contractor at no cost to the Coast Guard.

## 1.17 RECORDING OF WORK IN PROGRESS

1.17.1 The TA may record any work in progress using various means including, but not limited to photography and video, digital or film.

## 1.18 LIST OF CONFINED SPACES

1.18.1 The list of the vessel's identified confined spaces is available from the Chief Engineer.

## 1.19 LEAD PAINT AND PAINT COATINGS

1.19.1 The Contractor shall not use lead based paints.

1.19.2 CG ships have been painted with lead based paints in the past and as a result some of the Contractor's processes such as grinding, welding and burning may release this lead from the coatings. The Contractor shall ensure that coatings in the affected work areas are tested for lead content and that the work is performed in accordance with applicable Federal and Provincial regulations. The Contractor shall have in place a Lead Abatement Program in order to deal with any lead paint discovered in the course of this statement of work.

1.19.3 The Contractor shall provide HC product approval for underwater hull surface paints controlled by HC and the Pest Management Regulatory Agency.

## 1.20 ASBESTOS CONTAINING MATERIALS

1.20.1 The Contractor shall not use any asbestos containing materials.

1.20.2 Handling of any asbestos containing materials shall be performed by personnel trained and certified in the removal of asbestos in accordance with Federal, Provincial and

Municipal regulations in effect and in accordance with the Fleet Safety and Security Manual. The Contractor shall provide the TA with disposal certificates for all asbestos containing material removed from the vessel indicating that the disposal was in accordance with Federal, Provincial and Municipal regulations in effect.

## 1.21 REMOVED MATERIALS AND EQUIPMENT

1.21.1 All removed equipment as a result of this specification shall remain the property of the CCG unless otherwise instructed.

## 1.22 WELDING CERTIFICATION

1.22.1 For any item requiring the application of fusion welding for steel structures, the Contractor or his Sub-Contractors shall be certified by the Canadian Welding Bureau, in accordance with CSA\ACNOR W47.1 -– latest revision, Division 1 or 2.

1.22.2 For any item requiring the application of fusion welding for stainless steel structures, the Contractor or his Sub-Contractors shall be certified by the Canadian Welding Bureau, in accordance with AWS D1.6 as permitted by CSA\ACNOR W47.1 – latest revision.

1.22.3 For any item requiring the application of fusion welding to aluminum structures, the Contractor or his Sub-Contractors shall be certified by the Canadian Welding Bureau, in accordance with CSA\ACNOR W47.2 – latest revision, Division 1 or 2.

1.22.4 The Contractor shall provide documentation to the TA clearly identifying the welding certification of all employees performing any welding included in this specification.

## 1.23 ELECTRICAL INSTALLATIONS

1.23.1 All electrical installations and repairs shall be carried out in accordance with the latest revisions of Transport Canada Marine Safety Electrical Standard TP127E and IEEE Standard 45 Recommended Practice for Electrical Installation on Ships.

1.23.2 All installations of electronic equipment shall be carried out in accordance with Canadian Coast Guard Telecommunications and Electronics publication CGTS-3(E) entitled “General Specification for the Installation of Shipboard Electronic Equipment”

## 2.0 SERVICES

### 2.1 GENERAL

2.1.1 The Contractor shall supply the following services to the vessel for the entire work period and disconnect upon completion of the work period. The Contractor shall be responsible for the re-establishment of services if the vessel is moved during the work period.

2.1.2 Each of the services noted in section 2 shall be separately priced in the Contractor's submitted bid.

2.1.3 The Contractor shall be responsible for supplying all material, hoses, cables etc. and labour required to connect and disconnect the services to the vessel. Unless otherwise stated these services shall be available 24 hours a day 7 days a week for the entire contract period.

2.1.4 All staging, cranage, screens, lighting and any other support services, equipment and materials necessary to carry out the work identified in these specifications shall be Contractor supplied.

2.1.5 All deficiencies resulting from work carried out in this specification must be repaired at contractor's expense.

2.1.6 Prior to the start of disassembly, precautions shall be taken to ensure that the reassembly and reinstallation of all system and equipment components will be as per original and in accordance with manufacturer's specifications.

2.1.7 The Contractor shall report by email all deficiencies as they are identified, to the TA and TI and make recommendations for their prompt remedial action.

2.1.8 The Contractor shall responsible for removing to gain access to work site, for example, floor, frames, pumps, insulation and etc.

Upon completion of the work carried out in this specification the contractor must restore everything removed for gain access to original installed condition.

## 2.2 BERTHING

2.2.1 The berthing and mooring facilities shall be suitable for a vessel of this size in local weather / tide / sea conditions. Fenders shall be supplied by the Contractor to prevent the vessel from contacting the wharf in local weather / tide / sea conditions.

2.2.2 The length of the dock shall be a minimum of 90% of the length of the vessel (LOA).

2.2.3 During the contract period, when the ship is not in the dry dock, the ship shall be berthed at the Contractor's wharf at a safe and secure location with a minimum clearance of one meter under the vessel at extreme low water level conditions to ensure the vessel will not touch bottom.

2.2.4 The Contractor shall be responsible for all movements of the vessel, including berthing and mooring of the vessel for the contract period and arrangements and costs for line handlers, tugs and pilots.

## 2.3 MOORING LINES

2.3.1 The Contractor shall be responsible for providing the necessary mooring lines and labour required to secure the vessel alongside the facilities. Ship's mooring lines are not to be used.

## 2.4 GANGWAYS

2.4.1 Contractor shall supply the labour and services required for the installation and removal of one gangway, complete with handrails, safety nets and lighting for the duration of the contract while the vessel is moored.

2.4.2 Any movement of the gangway required by the Contractor will be at the expense of the Contractor.

## 2.5 ELECTRICAL POWER

2.5.1 The Contractor shall be responsible for supplying 600 Volt Alternating Current, 3 phase 4 wire with a floating neutral, 60 Hertz, 200 Ampere service electrical power for the duration of the contract.

2.5.2 The vessel's shore power cable and associated plug connection may be used by the Contractor. However, the Contractor is responsible to replace the entire length of cable with an equal quality, size and length of cable should the shore power cable be damaged during the contract period. Damage to the shore power cable also includes damage to the

plug-in connections which shall be replaced if damaged. Splicing any section of the cable is not acceptable.

2.5.3 The Contractor shall be responsible for ensuring that the correct phase rotation on a 3 – phase system is established prior to energizing the ship's distribution system. Any changes to the ship's power system to accommodate the Contractor supplied shore power connections shall be returned to the original setup by the Contractor upon the disconnection of the Contractor supplied power cable and equipment. All work shall be carried out by certified electricians.

2.5.4 The Contractor shall supply all power to the vessel through a Contractor supplied kilowatt-hour meter. The Contractor shall read the kilowatt-hour meter when the connection is made and once again when the power is disconnected. Both readings of the meter shall be witnessed by the TA. The Contractor shall provide a calibration certificate for the kilowatt-hour meter.

2.5.5 Supplying (power cable) and labor to plug and unplug a power supply 220 VAC, 1 phase 100A capacity. Provide a price for total con-sum estimated at 10,000 kw-hr.

2.5.6 The final price of kwatt/hour must be determined at the end of the contract period, when a meter reading was made. The cost of electricity consumption will be adjusted upwards or downwards on a PWGSC-TPSGC 1379.

## 2.6 FIRE MAIN SYSTEM

2.6.1 The Contractor shall supply a separate and continuous uninterrupted water supply through isolation valves via a calibrated pressure regulator to the ship's fire main system. Supply pressure shall be at 80 to 110 psig. Pressure shall be maintained at all times to the vessel. The isolation valves shall be Contractor supply and install in a double block and drain valve arrangement.

## 2.7 CRANAGE

2.7.1 The Contractor shall quote on 20 hours for the general services of a crane, including an operator and a rigger, for the support of the vessel's day-to-day activities, i.e. the moving of stores from the vessel to the Contractor's facilities ashore while the vessel is in the dry-dock. The Contractor shall provide a Log Book of crane activities which shall contain the printed name and signature of the CCG representative that required this service. The duration of time for each use of the crane services shall also be recorded in this log book. The Log Book shall be available for viewing by the TA at all times. The contractor shall inform the TA and Contracting Authority when 16 hours of usage has been accumulated. Actual usage shall be prorated accordingly.

## 2.8 GARBAGE REMOVAL

2.8.1 A garbage container or dumpster a minimum of 16 cubic meters shall be located adjacent to the vessel. Garbage shall be removed from the vessel daily including week-ends and holidays. Ship's personnel shall comply with any recycling programs that the Contractor has in place, provided the appropriate containers are made available adjacent to the vessel.

2.8.2 The Contractor shall also supply a green bin for food waste, the bin shall be located adjacent to the vessel. The green bin shall also be emptied daily.

## 2.9 PORTABLE TOILET

2.9.1 The contractor shall provide a portable toilet to the vessel forward of the wheel house while vessel is on the dry dock. This shall consist of a single stall, unisex, lockable, portable toilet equipped with either wash basin or equivalent method of cleansing and sanitizing hands. This facility must be serviced, cleaned and sanitized by the Contractor as necessary and at least once per week to maintain it in a clean, stocked and sanitary condition. The minimum requirement for this facility will comply with all Federal and Provincial OSH regulations.

## 2.10 VESSEL SECURITY DURING QUIET HOURS

2.10.1 The Contractor shall maintain security for the vessel outside of Contractor regular scheduled work hours. Please refer to FSSM 8.B.1 Security of the Vessel.

2.10.2 In the event of any ‘hot work’ procedures being carried out during the day, surveillance rounds shall be carried out hourly for at least 3 hours in the surrounding area of the hot work after the beginning of quiet hours.

2.10.3 If the Contractor has additional work shifts scheduled for the vessel during the contract period, the Contractor may start the surveillance rounds at the end of the last shift, recognizing that the Contractor is fully responsible for the safety and security of the vessel at all times.

2.10.4 The Contractor shall provide a Log Book on the vessel which shall contain the printed name and signature of the security staff upon completion of each round. The Log Book shall be available for viewing by the TA at all times.

## 2.11 PARKING AT CONTRACTOR’S FACILITY

2.11.1 The contractor shall provide three (3) parking spaces for exclusive use of the TA and Project Team for duration of the contract period.

## 3.0 VESSEL PARTICULARS

| | |
|---|---|
| Name: | CCGS Constable Carriere |
| Type: | Twin Screw, Mid Shore Patrol Vessel |
| Class: | Near Coastal Class I |
| Year Built: | 2012 |

Principal Dimensions:

| | |
|---|---|
| Gross Tonnage: | 253 t |
| Net Tonnage: | 75 t |
| Construction: | Material Steel |
| Vessel Length: | 39.72 m |
| Vessel Breadth: | 7.00 m |
| Vessel Depth: | 3.80 m |

Propulsion: Twin screw, Controllable Pitch Propeller, MTU S4000 M93L 12V

## 4.0 DRY-DOCKING

### 4.1 IDENTIFICATION

4.1.1 The Contractor shall supply all labor, materials and facilities required for the berthing, mooring, dry-docking and storage of the vessel.

4.1.2 The Contractor shall prepare dry-docking blocks and necessary shoring to maintain the true alignment of the vessel's hull and machinery throughout the docking period.

4.1.3 The vessel shall be dry-docked such that all docking plugs, transducers, anodes and sea inlet grids are clear and accessible. A minimum clearance of 1.3 meters (4 feet) shall be available between the keel and the dry-dock. If any hull fittings are covered, the Contractor shall be responsible for all labor and materials required for making alternative arrangements to drain tanks and/or move blocks to gain access to areas of specified work. Please refer to Docking plan.

4.1.4 The Contractor shall provide a ground cable between the vessel and the dock while the vessel is dry-docked as per TCMS Ship Safety Bulletin 6/89.

4.1.5 The Contractor shall supply and erect at least one vessel access-way in compliance with WCB regulations for the duration of the docking period. The Contractor shall be responsible for the safe maintenance of the access-way.

4.1.6 The Contractor shall advise the Technical Authority of the details of any major changes in the distribution of weights on the vessel while the vessel is dry-docked. This information shall be given to the Technical Authority prior to close of contract.

### 4.2 REFERENCE MANUAL

4.2.1 CCGS Constable Carriere Stability Book

### 4.3 DELIVERABLES

4.3.1 The Contractor shall provide documentation of the following information to the TA prior to the close of the contract:

- Kilowatt hour meter readings at connection and at disconnection
- Oil Disposal Certificate
- Electrical connections for steering gear units

4.3.2 Once the drain plugs placed back in the right places, all tanks that have been emptied should be filled to the same level as that which they were prior to dry docking.

4.3.3 Before the refloating of the ship, all the transducers are required be leached with a solution of mild detergent and water to be free of any contaminants and all marine fouling. Once washed, transducers should be rinsed with a large volume of fresh water to ensure that no soap residue is left on their surface.

## 5.0 UNDERWATER HULL INSPECTION

### 5.1 IDENTIFICATION

5.1.1 The Contractor shall make arrangements for Lloyd's Class inspection of the underwater hull area shell plating and an FSR paint system condition inspection.

5.1.2 The underwater hull survey inspection shall be carried out in accordance with the Classification Society's survey requirements for a type of this vessel.

5.1.3 The underwater Hull Inspection shall identify areas of the hull that need to be grit blasted and recoated to the paint manufacturer's requirements. This inspection shall be completed within 48 hours of docking the vessel.

5.1.4 The Contractor shall carry out all Lloyd's Class prescribed repairs and TA approved FSR recommended repairs; this work will be negotiated using form PWGSC 1379, as applicable.

### 5.2 REFERENCES

5.2.1 Product Data

5.2.1.1 Interspeed 640, Intershield 300, Intergard 263, Intershield 300, Intergard 263, Interthane 990 Product Data and Application Sheets

5.2.2 Drawings

| **Drawing Number** | **Description** | Electronic # |
|---|---|---|
| AF6097-10000-14 | Docking Plan 1-2 and 2-2 | |

| | | |
|---|---|---|
| AF6097-10000-01 | Midship and Other Sections Plan | |
| AF6097-10000-03_01 | Shell Expansion | |
| AF6097-10000-04 | Watertight Bulkheads Plans | |
| AF6097-50000-03 | Valve Schedule | |
| AF6097-63100-01_01 | Paint Schedule | |
| AF6097-63300-01 | Scheme of Cathodic Protection | |
| AF6097-89940-01_01 | General Arrangement Plan 1-2 | |
| AF6097-89940-01_02 | General Arrangement Plan 2-2 | |
| AF6097-89940-02_01 | Tank Arrangement & Capacity Plan | |
| AF6097-89940-03_01 | Line Plan | |
| AF6097-89940-08_01 | Draft Marks and Load Line Marks Plan | |

5.2.3 Regulations

5.2.3.1 Canada Shipping Act, 2001 (2001, c. 26) Hull Inspection Regulations (C.R.C., c.1432)

5.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

5.2.4 Standard

5.2.4.1 Coating Manufacturer's Specifications

5.2.4.2 CG Fleet Circular FC 08-2007

## 5.3 TECHNICAL

### 5.3.1 General

5.3.1.1 Underwater Hull Area ≈ 330 $m^2$ (≈3,552 $ft^2$)

5.3.1.2 The Contractor shall hydro-blast the underwater hull area of the vessel to the deep load line within 24 hours of docking. Hydro-blasting shall be done with a minimum of 5,000 PSI pressure.

5.3.1.3 The Contractor shall remove all the sea-chest grates and clean the sea chest. The Contractor shall be responsible to reinstall the sea-chest grates after the Lloyd's inspection. The grates shall be reinstalled in the same manner as originally found.

5.3.1.4 Once clean, the Contractor shall schedule the Lloyd's inspection of the underwater hull structure and condition for the earliest opportunity following vessel dry-docking but within the 48 hours of docking.

5.3.1.5 The Contractor shall supply all necessary staging and man lifts for the work of this specification, including inspection by Surveyors, TA and IA.

5.3.1.6 During the vessel underwater hull inspection up to the deep load line all areas with poor coating adhesion or lack of coating shall be recorded on a copy of the shell expansion plan by the Contractor and verified by the Inspection Authority. These areas shall be recoated as per Paint Manufacturer specification.

5.3.1.7 The Contractor shall quote on 200 square meters of painting to be recorded on the Price Data Sheet. Actual painting service shall be prorated accordingly.

5.3.1.8 This inspection shall also include the inside of the bow thruster tunnel.

5.3.1.9 The Contractor shall carry out all Lloyd's surveyor prescribed repairs in accordance with all applicable standards and regulations including those identified in 1.19. This work will be negotiated using form PWGSC 1379, as applicable

5.3.1.10 The Contractor shall quote on 50 meters of welding, one (1) welding pass. Actual welding services shall be prorated accordingly. Price per meter cost shall be recorded on the Price Data Sheet.

5.3.1.11 All materials used for the prescribed repairs shall meet or exceed original specifications and shall be in compliance with applicable regulations and standards.

5.3.1.12 The Contractor shall schedule the Lloyd's inspection of all prescribed repairs following their completion and prior to the coating application.

5.3.1.13 All new and disturbed metal resulting from the prescribed repairs shall be prepared and coated in accordance with Coating Manufacturer's Specification.

5.3.1.14 All surface preparation and recoating shall be performed by a Contractor specialized in the application of marine exterior hull coatings for ships. The Contractor shall prepare the surface of the underwater hull area in accordance with the coating manufacturer's

requirements and as follows: The area to be recoated shall be blasted to SSPC-SP10 (Sa2-½ Swedish Standard) with abrasive providing minimum amplitude of 80 microns. All necessary steps shall be taken after blasting to minimize steel oxidation by applying the coating in accordance with the paint manufacturer's instructions. All edges to the existing coating shall be feathered and blown clean with compressed air prior to the coating application. According to our record, coating on the underwater hull is one coat of Intersheild 300 @5 mils, one coat of Intergard 263@4 mils, and one coat of Interspeed 640@4 mils.

5.3.1.15 Where ambient air temperatures may become a problem, the Contractor shall take steps to ensure that the painting and curing of the underwater hull coating system will be completed before the completion date of the contract.

5.3.1.16 All existing coatings on all surfaces identified for recoating, shall be completely removed, contained and disposed of by the Contractor in accordance with applicable territorial and federal environmental regulations.

5.3.1.17 All underwater areas, not requiring grit blasting, shall be protected from damage and contamination during surface preparation and recoating. These areas include all ship side valves, port and starboard propellers, all rudder bearings and it's cover, bow thruster blades, all anodes, speed log and all depth sounding appliances, etc.

5.3.1.18 All above water line surfaces, accommodation area, scuttles, port holes, windows, deck machinery, susceptible to damage from surface preparation and coating application overspray shall be protected accordingly.

5.3.1.19 The Contractor shall be responsible for the cleanup of all blasting grit, debris and overspray from the vessel's interior and exterior decks.

5.3.1.20 The Contractor shall ensure that all coatings are applied within the allotted dry dock time period in order to allow for the full and proper curing of the coating to the vessel's hull prior to immersion. Any application that results in an unacceptable coating to the National Association of Corrosion Engineers (NACE) certified FSR and TA shall be redone (blasting included) at the Contractor's expense.

5.3.1.21 The Contractor shall have the attending Lloyd's surveyor inspect the shell plating. A survey credit shall be obtained from Lloyd's for the inspection and certification of the shell plating. The Contractor shall present this survey credit to the Inspection Authority and the Technical Authority prior to the flooding of the dock to re-float the vessel. The Contractor shall notify the Inspection Authority and the Technical Authority so that these authorities may witness the shell plating inspection by the Lloyd's Surveyor.

### 5.3.2 Draft Markings

5.3.2.1 The Contractor shall renew the following draft markings on the vessel by grit blasting clean each draft mark to the bare steel, re-punch the outline of the draft mark if required and applying the Interspeed 640 for under parts. The Contractor shall supply and apply

2 coats of International Interthane 990 white paint (white) to each of the below mentioned markings within the punch outlines marked. The renewal of these marks shall be done after the final painting and curing of the underwater hull coating.

5.3.2.2 Forward: Both Port and Starboard side draft markings including the 2.4M and 1.6M meter markings for a total of 10 markings to be renewed.

5.3.2.3 Aft: Both Port and Starboard side draft markings including the 2.0M and 2.8M meter markings for a total of 10 markings to be renewed.

5.3.2.4 When renewing the draft markings the Contractor shall ensure that the draft markings are the correct height and obliqueness to the hull, representing the true draft of the marking and vessel and are acceptable to the attending Lloyd's Inspector.

5.3.2.5 The Contractor shall renew the Port and Starboard Plimsoll markings at mid-ship including all load lines and mid-ship markings via the same procedure as outlined above for the draft marks.

## 5.4 PROOF OF PERFORMANCE

### 5.4.1 Inspections

5.4.1.1 The Contractor shall afford the IA and TA the opportunity to witness the Lloyd's inspection of the underwater hull prior to and following all prescribed repairs.

### 5.4.2 Testing/Trials

5.4.2.1 The Contractor shall perform nondestructive testing as requested by the attending Lloyd's Surveyor on completed underwater hull repairs. This work will be negotiated using form PWGSC 1379, as applicable.

5.4.2.2 The Contractor shall perform and record Wet Film Thickness readings during each application of underwater surface area as required by the FSR. The readings and their locations shall be contained in the final report.

### 5.4.3 Certification

5.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 5.5 DELIVERABLES

### 5.5.1 Documentation (Reports/Drawings/Manuals)

5.5.1.1 Following the Lloyd's underwater hull inspection and prior to carrying out the prescribed repairs, the Contractor shall submit to the TA in PDF format a copy of drawing AF6097-10000-03_01 Shell Expansion outlining in red all proposed plate repairs.

5.5.1.2 Prior to the close of contract, the Contractor shall submit a copy of drawing AF6097-10000-03_01 Shell Expansion outlining in red all completed plate repairs.

5.5.1.3 The Contractor shall provide a coating application report from the FSR to the TA that details all of the particulars of the coating application process as completed by the Contractor. The report shall include details of all environmental conditions at the time any hull coatings were applied and at which areas on the hull the coating was applied. This shall include but not be limited to the dry and wet bulb temperatures, relative humidity, dew point and the times when painting was started and stopped. Also to be included in the report shall be the temperature of the product at application time as well as wet and dry film thickness gauge readings.

5.5.1.4 Prior to the close of contract, a comprehensive report covering all completed work shall be submitted to the IA and TA in accordance with 1.11.

## 6.0 ANODES

## 6.1 IDENTIFICATION

The Contractor shall remove and replace all wasted and/or defective hull anodes on the underwater hull of the vessel.

## 6.2 REFERENCES

### 6.2.1 Manual:

| NO. | Description |
|---|---|
| 1 | Hydraulic Thruster (PKK 24 TRAC (24) 75 kw) Installation and Operation |
| 2 | 24 TRAC ASSY drawing # 29351 |

**6.2.2 Drawings:**

| Drawing Number | Drawing Title | Electronic File Name |
|---|---|---|
| AF6097-89940-01_01 | GENERAL ARRANGEMENT PLAN_1_2 | |
| AF6097-89940-01_01 | GENERAL ARRANGEMENT PLAN_2_2 | |
| AF6097-63300-01 | Scheme of Cathodic Protection | |
| 6097-O-6330-001 | Anodes Plan | |

**6.2.3 Regulations**

6.2.3.1 Canada Shipping Act, 2001 (2001, c. 26) Hull Inspection Regulations (C.R.C., c.1432)

6.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

**6.2.4 Standard**

6.2.4.1 N/A

**6.3 TECHNICAL**

**6.3.1 Anodes**

6.3.1.1 All sacrificial hull anodes (AF6097-89940-01_01) shall be visually inspected for defects and findings recorded. Recommendations for replacement shall be made accordingly. List of 29 anodes.

6.3.1.2 The Contractor shall make arrangements for Llyod's inspection of the anodes prior to, and following all prescribed renewing. The Contractor shall remove all wasted and/or damaged anodes of the vessel and grind smooth all previous anode weld connections. The Contractor shall fit new anodes in the same locations as the removed anodes. This shall be done after the hull coating has been applied. All weld areas shall be touched up with the hull coating after the anodes have been fitted. All anodes not identified for replacement shall be protected prior to the application of any hull coatings. Any anodes that are covered with coating are to be renewed at the Contractor's expense.

6.3.1.3 The Contractor shall quote on replacing 10 of the 29 total anodes of the vessel. Anodes shall be Aluminum Disc Anode MME 28AB and Aluminum Hull Anode MME 26AA anodes type as per dwg 6097-O-6330-001.

6.3.1.4 A unit price per anode for removal and replacement is to be included in the pricing data sheet.

### 6.3.2 Sea Chest and Sea Bay Anodes

6.3.2.1 The Contractor shall remove all wasted and/or damaged sea bay and sea chest anodes.

6.3.2.2 The Contractor shall quote on replacing 7 of type MME26AA hull anodes include removing and installation.

6.3.2.3 The Contractor shall quote on replacing 5 of type MME28AB disc anodes include removing and installation.

6.3.2.4 All anodes shall be protected from the coating material to be applied in the sea chest and sea bay areas during the work execution of paint process if require. All anode protection shall be removed after completion of the coating application. Any anodes that are covered with coating are to be renewed at the Contractor's expense.

6.3.2.5 A unit price per anode removal and replacement is to be included in the pricing data sheet.

### 6.3.3 Bow thruster Anodes

6.3.3.1 The Contractor shall remove and replace all wasted and/or damaged thruster tunnel anodes. There are 2 anodes, Aluminum MME26AA each side of the thruster unit and total is 4.

## 6.4 PROOF OF PERFORMANCE

### 6.4.1 Inspection

6.4.1.1 The Contractor shall afford the IA and TA the opportunity to witness the Lloyd's inspection of the anodes prior to, and following all prescribed renewing.

### 6.4.2 Tests & Trials

6.4.2.1 The Contractor shall notify the Inspection Authority upon completion of this work item to afford the Authority the opportunity to verify the work has been completed as detailed in this Section. Verification of this work shall be performed before the ship undocking.

### 6.4.3 Certification

6.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 6.5 DELIVERABLES

### 6.5.1 Documentation (Reports/Drawings/Manuals)

6.5.1.1 Prior to the close of contract, a comprehensive report covering all work and replacements shall be submitted to the TI and TA in accordance with 1.11.

## 7.0 STORM VALVES & SEA CONNECTIONS INSPECTION

## 7.1 IDENTIFICATION

7.1.1 The Contractor shall remove, disassemble, clean and layout for Lloyd's inspection all storm valves and sea connections.

## 7.2 REFERENCES

### 7.2.1 Equipment Data

7.2.1.1 List of Sea Water Valves: (Total 10)

| ID # | Description | Location | Size mm |
|---|---|---|---|
| V256001 | Main Isolation Valve (P) | Engine Room FWD | 250 |
| V256002 | Main Isolation Valve (Stbd.) | Engine Room FWD | 250 |
| V256003 | FWD Sea Chest Isolation Valve | Bow Thruster RM | 100 |
| V256007 | Port Sea Chest Circulation Valve | Engine Room FWD | 100 |
| V256008 | Stbd Sea Chest Circulation Valve | Engine Room FWD | 100 |
| V256010 | Port Sea Chest Vent | Engine Room FWD | 150 |
| V256011 | Stbd Sea Chest Vent | Engine Room FWD | 150 |
| V256012 | FWD Sea Chest Vent Valve | Bow Thruster RM | 65 |
| V256013 | P Sea Strainer outlet<br>-To replace (valve provided by the ship) | Engine Room FWD | 250 |
| V256014 | Stbd Sea Strainer outlet<br>-To replace (valve provided by the ship) | Engine Room FWD | 250 |
| | | | |

7.2.1.2 List of Storm Valves (Total 4)

| ID # | Description | Location | Size |
|---|---|---|---|
| V526023 | Fuel Oil Spill LCR O/B Discharge | | 50 |
| V526029 | HVAC/DK LCR O/B Discharge | | 50 |
| V526031 | Wet Gear RM O/B Discharge | | 50 |
| V593091 | Sewage Treatment Plant O/B Disc | | 50 |
| | | | |

7.2.1.3 List of Overboard Valves: (Total 10)

| ID # | Description | Location | Size |
|---|---|---|---|
| V256032 | P O/B Discharge | Engine Room | 150 |

| | | | |
|---|---|---|---|
| V256035 | Stbd O/B Discharge | Engine Room | 150 |
| V256065 | ACU O/B Discharge | Engine Room | 65 |
| V256114 | Stbd ME Gear Box O/B Discharge | Engine Room | 40 |
| V256115 | P ME Gear Box O/B Discharge | Engine Room | 40 |
| V256131 | Cyclone Filter O/B Discharge | Engine Room | 25 |
| V520018 | Bilge O/B | Engine Room | 50 |
| V520019 | MMR Bilge O/B | Engine Room | 50 |
| V520056 | Bilge Eductor O/B | Engine Room | 80 |
| V593071 | O/B Discharge | | 32 |
| V530001 | RO units O/B Discharge | Bow Thruster Room | |
| V555009 | Fire main drain O/B | Bow Thruster Room | |

7.2.1.4 List of Blow down Air Valves (Total 10)

| **ID #** | **Description** | **Location** | **Size** |
|---|---|---|---|
| V551061 | Blow down Air Sea Chest (P) | | 25 |
| V551062 | Blow down Air Sea Chest (Stbd.) | | 25 |
| V551070 | Blow down Air RO Unit | | 15 |
| V551074 | Blow down Air FWD Sea Chest | Bow Thruster Room | 25 |
| V551075 | Blow down Air Bilge O/B valve | | 15 |
| V551076 | Blow down Air HVAC ACU O/B | | 15 |
| V551089 | Blow down Air Fire Water O/B | | 15 |
| V551126 | Blow down Air Gear Box P O/B | | 15 |
| V551127 | Blow down Air Gear Box Stbd O/B | | 15 |
| V551128 | Blow down Air Cyclone Filter O/B | | 15 |
| V551073 | Blow down Air AMR Bilge O/B | AMR (Port) | |
| V551071 | Blow down Air MMR Bilge O/B | MMR (Port) | |
| V551068 | Blow down Air Sewage O/B | MMR (Port) | |
| V551063 | Blow down Air Port O/B | MMR (Port) | |
| V551064 | Blow down Air Stbd O/B | MMR (Stbd) | |

### 7.2.2 Drawings

| **Drawing Number** | **Description** | Electronic # |
|---|---|---|
| AF6097-25600-01_01 | As Build Cooling Water System | |
| AF6097-52000-01_01 | Bilge Drainage & Dewatering System | |
| AF6097-52600-01_01 | Scuppers and Drains | |
| AF6097-55100-01_01 | Compressed Air System | |
| AF6097-59300-02_01 | Black Grey Water & Sanitary System | |

### 7.2.3 Regulations

7.2.3.1 Canada Shipping Act 2001, Hull Inspection Regulations (C.R.C., c. 1432)

7.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

**7.2.4 Standard**

7.2.4.1 N/A

## 7.3 TECHNICAL

7.3.1 The Contractor shall ensure, prior to the start of disassembly, that all precautions are taken to ensure that the reassembly and reinstallation of all system and equipment components will be as per original and in accordance with manufacturer's specifications.

7.3.2 The Contractor shall visually inspect all removed valves and report by email all deficiencies as they are identified, to the IA and TI and make recommendations for their repair or replacement. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable. Replacement cost to be recorded on Pricing Data Sheet.

7.3.3 The Contractor shall remove, disassemble, clean and layout for Lloyd's inspection all valves listed above.

7.3.4 Prior to reassembly and installation by the contractor, the Contractor shall arrange the attending Lloyd's Surveyor, the IA and TA the opportunity to visually inspect all valves as listed above.

7.3.5 Following inspection, all original and new valves shall be re-seated and reassembled using new CSM packing and gaskets.

7.3.6 All flange gaskets disturbed as a result of the valve servicing process shall be renewed using new CSM gasket material.

## 7.4 PROOF OF PERFORMANCE

**7.4.1 Inspections**

7.4.1.1 Following all valves servicing and prior to installation, the Contractor shall demonstrate to the attending Lloyd's Surveyor, the IA and TA the opportunity to inspect all valves as listed above.

### 7.4.2 Testing/Trials

7.4.2.1 Following the completion of all valve work, the Contractor shall test all valves as listed above for functionality and sealing integrity at their respective maximum system operating pressures. All deficiencies shall be repaired at the Contractor's expense prior to the closing of contract.

7.4.2.2 The Contractor shall arrange the attending Lloyd's Surveyor, the IA and TA the opportunity to witness the successful testing of all valves as listed above.

### 7.4.3 Certification

7.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 7.5 DELIVERABLES

### 7.5.1 Documentation (Reports/Drawings/Manuals)

7.5.1.1 Prior to the close of contract, a comprehensive report covering all work and replacements shall be submitted to the TI and TA in accordance with 1.11.

## 8.0 RUDDERS & BEARINGS INSPECTION

## 8.1 IDENTIFICATION

8.1.1 All rudders, rudder stocks and rudder bearings shall be prepared for Lloyd's inspection.

## 8.2 REFERENCES

### 8.2.1 Manual

| NO. | Description |
|---|---|
| 1 | Jastram Steering System Installation and Service Manual |

### 8.2.2 Drawings

| Drawing Number | Description | Electronic Number |
|---|---|---|
| AF6097-56100-02_01 | STEERING SYSTEM SCHEMATIC OF THE HYDRAULIC SYSTEM | |
| AF6097-56100-03_01 | STEERING GEAR ROOM ARRANGEMENT | |
| AF6097-10000-11_01 | Rudder construction Plan Sheet 1 of 2 | |
| AF6097-10000-11_02 | Rudder construction Plan Sheet 2 of 2 | |

### 8.2.3 Regulations

8.2.3.1 Canada Shipping Act, 2001: Marine Machinery Regulations (SOR/90-264)

8.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

### 8.2.4 Standard

8.2.4.1 N/A

## 8.3 TECHNICAL

8.3.1 The Contractor shall ensure that the vessel is docked such that a minimum height of 1.3 meters is maintained between the keel of the vessel and the dry dock.

8.3.2 The Contractor shall ensure all applicable safety precautions including equipment lock outs and tag outs are implemented prior to the start of work. The Contractor shall

disconnect and remove the Rudders from the vessel. Where electrical circuits and position switches are removed or disconnected, the connections shall be clearly marked and recorded and all disconnected wiring shall be marked and the connections recorded. Where linkages are fitted, their fitted distance shall be recorded prior to disconnection such that these distances can be re-established upon re-assembly.

8.3.3 The Contractor shall ensure, prior to the start of disassembly, precautions are taken to ensure the reassembly and reinstallation of all system and equipment components are as per original and in accordance with manufacturer's specifications.

8.3.4 The Contractor shall report by email all deficiencies as they are identified, to the TA and IA and make recommendations for their prompt remedial action.

8.3.5 The Contractor shall measure and record all rudder bearing clearances prior to removal of rudder stocks.

8.3.6 The Contractor shall be disconnect, remove and lay out for Lloyd's inspection two rudders and rudder stock assemblies.

8.3.7 The two rudders shall be visually inspected and also pressure tested for defects and the findings recorded. The Contractor shall remove the drain plug and shall perform the pressure test of not more than 3 psi for 1 hour witnessed by Lloyd's Surveyor, TA and IA. Recommendations for repairs shall be made accordingly. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.8 The all rudder stocks shall be visually inspected for defects, diameters measured and findings recorded. Recommendations for repairs shall be made accordingly. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.9 All rudder stock keyways shall be inspected for defects using NDT LP Level II testing in full compliance with standards. All findings shall be recorded. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.10 The top rudder bearings and bearing fasteners for both rudder stocks shall be visually inspected for defects and findings recorded. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.11 The rudder carrier bearings for both rudder stocks shall be visually inspected for defects and findings recorded. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.12 Following inspection, both rudder assemblies shall be reassembled by the Contractor as per original and in accordance with manufacturer's specifications.

8.3.13 The Contractor shall remove the drain plugs from Port and Stbd. Skegs for inspection of tightness and vacuum or pressure test.

8.3.14 Before removing the Skegs drain plugs the Contractor shall ensure all applicable safety & environmental precautions are taken, to collect if any liquid inside in the Skegs.

8.3.15 The Contractor shall reinstall drain plugs from Skegs to original condition.

8.3.16 The Contractor shall re-install the rudders and reconnect all equipment and items removed during the removal of the rudders.

8.3.17 Care shall be taken to ensure that all values recorded prior to disassembly are achieved during assembly and that all electrical connections and otherwise are re-established as recorded.

8.3.18 The Contractor shall ensure that the tiller achieves a proper fit in accordance with manufacturer's specifications and that the tiller nut is hardened up in the presence of the Technical Authority.

8.3.19 Following the completion of all work, operational testing under full load shall be conducted on all disturbed equipment and systems until such time as all identified deficiencies have been corrected and full system functionality has been established.

## 8.4 PROOF OF PERFORMANCE

### 8.4.1 Inspections

8.4.1.1 Following the completion of all cleaning, inspection and repairs, and prior to reassembly, the Contractor shall afford the attending Lloyd's Surveyor, the TA and IA the opportunity to inspect all disassembled components. The Contractor shall set to work the rudder system, verifying that the rudder moves hard over to hard over and performs as per the installation manual.

8.4.1.2 The Contractor shall conduct a dock trial in the presence of the TA and the IA where the both the rudders systems are tested for correct operation in both directions and to ensure that proper indication is received on all system gauges.

8.4.1.3 Upon successful completion of the dock trial a 1 hour sea trial up to 100% engine load shall be conducted to verify the normal operation of all systems.

8.4.1.4 Sea trials will be completed once the Commanding Officer has confirmed that weather and seaway conditions permit.

### 8.4.2 Testing/Trials

8.4.2.1 Following initial testing and subsequent repairs, the Contractor shall afford the attending Lloyd's Surveyor, the TI and TA the opportunity to witness a comprehensive operational test under full load of all disturbed equipment and systems.

### 8.4.3 Certification

8.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 8.5 DELIVERABLES

### 8.5.1 Documentation (Reports/Drawings/Manuals)

8.5.1.1 A comprehensive report of all inspections including all findings, recommendations, test results and recorded measurements shall be prepared in accordance with 1.11. and submitted to the TA and IA prior to the close of contract.

## 9.0 ANCHOR AND CHAIN INSPECTION

## 9.1 IDENTIFICATION

9.1.1 The anchor and anchor chain shall be laid out for Lloyd's Surveyor inspection.

## 9.2 REFERENCE

### 9.2.1 Manual

9.2.1.1 N/A

### 9.2.2 Drawing

| Drawing Number | Drawing Title | Electronic File Name |
|---|---|---|
| AF6097-58100-01_01 | Anchor System Arrangement Plan | |

### 9.2.3 Regulation

9.2.3.1 Canada Shipping Act, 2001: Marine Machinery Regulations (SOR/90-264)

9.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

### 9.2.4 Standard

9.2.4.1 ISO 9712:2005, International Standards for Qualification and Certification of NDT Personnel

9.2.4.2 ANSI/ASNT CP-189-2006, ASNT Standard for Qualification and Certification of NDT Personnel

## 9.3 TECHNICAL

9.3.1 The Contractor shall clean and lay out the anchors and chains for Lloyd's Surveyor's inspection.

9.3.2 The Contractor shall arrange for the lowering and raising of the anchor, due to no hydraulic power available for operating the winch.

9.3.3 The Contractor shall ensure prior to the start of disassembly, precautions are taken to ensure the reassembly and reinstallation of all system and equipment are as per original and in accordance with manufacturer's specification.

9.3.4 The Contractor shall perform a thorough visual inspection of the anchor and chain for indications of excessive wear, wastage and other defects. All evidence of defects shall be recorded and brought to the attention of the attending Lloyd's Surveyor, the IA and TA.

9.3.5 Areas of concern shall be assessed in accordance within this specification; required repairs shall be actioned by the Contractor prior to the close of contract as unscheduled work. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

9.3.6 The Contractor shall have the anchor eye and anchor shackles inspected using liquid penetrant testing performed by a NDT LPT Level II certified Technician in full compliance with standards identified in 9.2.4. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

9.3.7 Following all repairs and replacements, the Contractor shall mark the anchor chain with stainless steel wire at each joining shackle. Links s adjacent to the joining shackle shall be prepped and painted white in accordance with paint manufacturer's recommendations. The number of painted links each side of the joining shackle shall correspond with the order number of the adjacent anchor side shot.

9.3.8 The Contractor shall arrange the chain locker for Lloyd's Surveyor inspection. The Contractor shall establish the confine space entry procedure prior to start of the inspection.

9.3.9 Prior to undocking, the chain and anchor shall be stowed as per original.

## 9.4 PROOF OF PERFORMANCE

### 9.4.1 Inspections

9.4.1.1 The Contractor shall afford the attending Lloyd's Surveyor, the IA and TA the opportunity to visually inspect the ranged anchor and anchor chain.

### 9.4.2 Testing/Trials

9.4.2.1 The Contractor shall afford the attending Lloyd's Surveyor, the IA and TA the opportunity to witness the successful operation of anchor and anchor chain during sea trials.

9.4.2.2 All defects associated with the contracted work shall be repaired at the Contractor's expense prior to closing the contract.

### 9.4.3 Certification

Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications including but not limited to shackles, links and other components replaced on the anchor and anchor chain assembly.

## 9.5 DELIVERABLES

### 9.5.1 Documentation (Reports/Drawings/Manuals)

9.5.1.1 Prior to the close of contract, a comprehensive report covering all work and replacements shall be submitted to the IA and TA in accordance with 1.11.

# 10.0 PROPELLER SHAFT SEALS AND SHAFT CLEARANCES

## 10.1 IDENTIFICATION

10.1.1 Port and Stbd shaft seals, shall be opened up for Lloyd's inspection

10.1.2 Port and Stbd propeller shafts clearances, inner, intermediate and outer, shall be measured and recorded for Lloyd's inspection

## 10.2 REFERENCE

### 10.2.1 Manual

| NO. | Description |
|---|---|
| 1 | Kamewa CP-A D Installation Manual (10Sooo239/49341-E) |
| 2 | Simplan Seal Manual |

### 10.2.2 Drawings

| Drawing Number | Drawing Title | Electronic File Name |
|---|---|---|
| 6097-24300-01_1 | Shaft Line arrangement | |

**10.2.3 Regulations**

10.2.3.1 Canada Shipping Act, 2001: Marine Machinery Regulations (SOR/90-264)

10.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

**10.2.4 Standard**

10.2.4.1 N/A

**10.3 TECHNICAL**

10.3.1 The Contractor shall release the inboard side of the shaft seals Port and Stbd side. The Contractor shall take measures to protect all sealing surfaces of the shaft seal as described in the Simplan Seal Manual.

10.3.2 The Contractor shall ensure that prior to the start of disassembly, precautions are taken to ensure the reassembly and reinstallation of all system and equipment will as per original and in accordance with manufacturer's specification.

10.3.3 The Contractor shall open the FWD Sterntube Bearing covers to measure the bearing clearances. The Contractor shall measure and record the clearance reading between shaft and FWD Sterntube bearings in four places, which are top, bottom, Port and Stbd positions, to be witnessed by the Lloyd's Surveyor, IA and TA.

10.3.4 The Contractor shall open the Aft Sterntube Bearing covers from Port and Stbd sides to measure the bearing clearance. The Contractor shall measure and record the clearance readings between shaft and Aft Sterntube Bearing in four locations, which are top, bottom, Port and Stbd position witnessed by the Lloyd's Surveyor, IA and TA.

10.3.5 The Contractor shall remove the Rope Guard with Net Cutters from Port and Stbd side to measure and record the bearing clearance. The Contractor shall measure and record the clearance reading between shaft and Aft Bracket Bearing, in four locations, which are top, bottom, Port and Stbd position to be witnessed by the Lloyd's Surveyor, IA and TA.

10.3.6 The Contractor shall reassemble and reinstall shaft seals, Port and Stbd, in accordance with the Simplan Manual and shall be tensioned as per the manual.

10.3.7 The Contractor shall reassemble and reinstall the Aft Sterntube Bearing covers from Port and Stbd side and the contractor shall lock the screws, to original position original lock style.

10.3.8 The Contractor shall reassemble and reinstall the Rope Guard with Net Cutters from Port and Stbd side to original position original lock style.

Any deficiencies found during the inspection, shall be brought to the TA & IA for approval. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

## 10.4 PROOF OF PERFORMANCE

### 10.4.1 Inspection

10.4.1.1 Following the completion of taking the bearing clearances, and prior to reinstall, the Contractor shall afford the attending surveyor, TA and IA the opportunity to inspect the condition and witness the bearing clearance. The Contractor shall conduct a dock trial where the both the shaft systems are tested for correct operation in both directions and to ensure that proper indication is received on all system gauges.

### 10.4.2 Test and Trials

10.4.2.1 The Contractor shall notify the TA and IA upon completion of this work item to afford the Authorities the opportunity to verify the work has been completed as detailed in this section. Verification of this work shall be performed before the ship undocking.

10.4.2.2 The Contractor shall conduct a dock trial where the both propeller and shaft systems are tested for correct operation in all directions and to ensure that proper indication is received on all system gauges.

10.4.2.3 Upon successful completion of the dock trial a 1 hour sea trial up to 100% engine load shall be conducted to verify the normal operation of all systems.

10.4.2.4 Sea trials will be completed once the Commanding Officer has confirmed that weather and seaway conditions permit.

### 10.4.3 Certification

10.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 10.5 DELIVERABLES

### 10.5.1 Documentation (Reports/Drawings/Manual)

10.5.1.1 Prior to the close of contract, a comprehensive report covering all measurements, work and replacements shall be submitted to the IA and TA accordance with 1.11.

## 11.0 LIST OF ACRONYMS

| | |
|---|---|
| CA | Contract Authority (PWGSC) |
| CCG | Canadian Coast Guard |
| CLC | Canada Labour Code |
| CSM | Contractor Supplied Material |
| CSA | Canadian Standards Association |
| CWB | Canadian Welding Bureau |
| DFO | Department of Fisheries and Oceans |
| FSSM | Fleet Safety & Security Manual (CCG) |
| FSR | Field Service Representative |
| GSM | Government Supplied Materials |
| HC | Health Canada |
| IEEE | Institute of Electrical and Electronic Engineers |
| IA | Inspection Authority (CCG) |
| LOA | Length Over All |
| MSDS | Material Safety Data Sheet |
| OHS | Occupational Health and Safety |
| PWGSC | Public Works and Government Services Canada |
| SSMS | Safety & Security Management System |
| TBS | Treasury Board of Canada Secretariat |
| TCMS | Transport Canada Marine Safety |
| TA | Technical Authority – Owner's Representative (CCG) |
| WCB | Worker's Compensation Board |
| WHMIS | Workplace Hazardous Material Information System |

# CCGS Corporal Teather
# Dry-Docking 2015

Specification No: 805.15

Date: 2015-10-13

Prepared by Marine Engineering
Canadian Coast Guard
Central & Arctic Region
Marine Engineering
Integrated Technical Services
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## 1.0 GENERAL NOTES

## 1.1 IDENTIFICATION

1.1.1 These General Notes describe the CCG requirements applicable to all accompanying Technical Specifications.

## 1.2 REFERENCES

1.2.1 Applicable regulations and documentation:

| FSSM Procedures | Title | References |
|---|---|---|
| 7.B.2. | Fall Protection | https://buyandsell.gc.ca/cds/public/2014/07/28/9747369257f68915028d19bbe5942a0c/ABES.PROD.PW_OLZ.B008.E6139.ATTA012.PDF |
| 7.A.1 | Assessing Risk | |
| 7.B.3 | Entry Into Confined Spaces | |
| 7.B.4 | Hotwork | |
| 7.B.5 | Lockout and Tagout | |
| 7.E.5 | Handling, Storage & Disposal of Hazardous Material | |
| 10.A.6 | Paint and Other Coatings | |
| 7.B.8 | Use of Halocarbons | |
| 7.A.12 | Potable Water Quality | |
| 10.A.7 | Contractor Safety and Security | |
| Ship Specific per 7.A.10 | Vessel Specific - Asbestos Management Plan | Available from: CCG Chief Engineer |
| | | |
| **Publications** | | |
| TP3177E | Standard for the Control of Gas Hazards in Vessels to be Repaired or Altered | Transport Canada |
| TP127E | Transport Canada Marine Safety Electrical Standard | Transport Canada |
| IEEE 45 | Recommended Practice for Electrical Installation on Ships | |
| CGTS-3(E) | Specification for the Installation of Shipboard Electronic Equipment | Available from: CCG/ITS |
| CSA W47.1 | Certification of Companies for Fusion Welding of Steel Structures Division 2 Certification | CSA |
| CSA W47.2 | Certification of Companies for Fusion | CSA |

| | | |
|---|---|---|
| | Welding of Aluminum | |
| CSA W59 | Welded Steel Construction – Metal Arc Welding | CSA |
| CSA W59.2 | Welded Aluminum Construction | CSA |
| **Acts** | | |
| CSA | Canada Shipping Act | |
| CLC | Canada Labour Code | |
| | | |
| **Regulations** | | |
| MOHS | Maritime Occupational Health and Safety | |
| | | |

## 1.3 OCCUPATIONAL HEALTH AND SAFETY

1.3.1 The Contractor and all sub-contractors shall follow Occupational Health and Safety (OHS) procedures in accordance with applicable federal and provincial OHS regulations ensuring that Contractor activities are carried out in a safe manner and do not endanger the safety of any personnel.

1.3.2 The Contractor and Contractor's employees will not have access to the vessel's washrooms and crew mess facilities. The Contractor shall provide the necessary amenities for the Contractor's and sub-contractors employees as required.

1.3.3 The Contractor shall ensure all applicable safety precautions including equipment lock outs and tag outs are implemented prior to the start of work.

## 1.4 ACCESS TO WORKSITE

1.4.1 The Contractor shall ensure the TA and CG staffs have unrestricted access to the worksite at all times during the contract period.

## 1.5 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

1.5.1 The Contractor shall provide the TA with Material Safety Data Sheets (MSDS) for all Contractor supplied WHMIS controlled products.

1.5.2 The TA will provide the Contractor with access to MSD sheets for all controlled products on the ship for all specified work items.

## 1.6 SMOKING IN THE WORK SPACE

1.6.1 The Contractor shall ensure compliance with the Non- Smokers' Health Act. The Contractor shall ensure that every employer, and any person acting on behalf of an employer, shall ensure that persons refrain from smoking in any work space under the control of the employer. The Contractor shall ensure that there is absolutely no smoking onboard the vessel.

## 1.7 CLEAN AND HAZARD FREE WORKSITE

1.7.1 The Contractor, during the work period shall maintain those areas of the vessel which Contractor personnel use to access those areas where work is to be undertaken, in a clean condition, free from debris and remove garbage daily.

1.7.2 Areas that pose a hazard as a result of the specification work are to be secured and clearly identified by the Contractor with signage to advise and protect all personnel from the hazard in accordance with applicable Canada Labour Code requirements.

1.7.3 The Contractor shall be responsible for the removal of all garbage generated from the work of this specification and for returning the vessel to the state of cleanliness in which the vessel was at the start of the contract period.

## 1.8 FIRE PROTECTION

1.8.1 The Contractor shall ensure the isolation, removal and installation of fire detection and suppression systems or any components thereof, is performed by a qualified technician. When the fire detection or fire suppression system is deactivated or disabled by the Contractor during the contract, the system(s) shall be recertified by a qualified technician as fully functional. A signed and dated original copy of the certificate shall be delivered to the TA before the end of the contract.

1.8.2 The Contractor shall notify the TA and obtain written approval from the TA prior to disturbing, removing, isolating, deactivating / disabling or locking out any part of the fire detection or suppression systems, including heat and smoke sensors.

1.8.3 The Contractor shall ensure protection against fire at all times including when working on the ship’s fire detection and / or suppression system(s) in a means acceptable to and approved by the TA and the FSSM.

1.8.4 Failure to take the necessary precautions while performing work on the vessel’s fire suppression system(s) could result in the accidental discharge of the fire suppression agent(s). The systems shall be returned to its original condition and adhere to all federal

and provincial regulations. The Contractor must recharge and certify systems related to all accidental discharges at no charge to Canada.

## 1.9 TOUCH-UP / DISTURBED PAINT

1.9.1 Unless stated otherwise the Contractor shall supply and apply two coats of marine primer compatible with the vessel's existing coating system to all new and/or disturbed metal surfaces.

## 1.10 CCG EMPLOYEES AND OTHERS ON THE VESSEL

1.10.1 CCG / DFO employees and other personnel such as manufacturer's representatives and/or TCMS or Class surveyors may carry-out other work including work items not included in this specification, onboard the vessel during this work period. Every effort will be made by the TA to ensure this work and the associated inspections and/or surveys do not interfere with the Contractor's work. The Contractor will not be responsible for coordinating the related inspections or payment of inspection fees for this work unless otherwise specified.

## 1.11 REGULATORY INSPECTIONS AND/OR CLASS SURVEYS

1.11.1 The Contractor shall contact, coordinate and schedule all regulatory inspections and/or class surveys by the applicable authority: i.e. Lloyd's, TCMS, HC, Environment Canada or others as required by the specification.

1.11.2 Any documentation generated by the above inspections and/or surveys to show that the inspections and/or surveys were conducted (i.e. original signed and dated certificates) shall be provided to the TA.

1.11.3 The Contractor shall not substitute inspection by the TA for the required regulatory inspections or class surveys.

1.11.4 The Contractor shall provide timely advance notification (minimum of 24 hours) of scheduled regulatory inspections and/or class surveys to the TA so they may witness the inspection.

## 1.12 DOCUMENTATION

1.12.1 Prior to the close of contract, the Contractor shall submit original hard copies and PDF copies of all requested readings, reports and other documentation to the TA. Hard copies shall be printed on Contractor, sub-Contractor or Manufacturer's letterhead, signed by the

originator, bound in standard 3-ring binders and indexed by specification number. PDF copies shall be emailed as scanned originals.

1.12.2 Recorded dimensions shall be to a precision of three decimal places (unless otherwise stated) in the measuring system currently in use on the vessel.

1.12.3 The Contractor shall provide to the TA current and valid calibration certificates for all instrumentation used during specified tests and trials.

## 1.13 CONTRACTOR SUPPLIED MATERIALS AND TOOLS

1.13.1 The Contractor shall ensure all materials are new and unused.

1.13.2 The Contractor shall ensure replacement material such as jointing, packing, insulation, small hardware, oils, lubricants, cleaning solvents, preservatives, paints, coatings etc. are in accordance with the equipment manufacturer's drawings, manuals and/or instructions.

1.13.3 Where no particular item is specified or where substitution shall be made, the TA shall approve the substituted item in writing. The Contractor shall provide information about materials used, certificate of grade and quality of various materials to the TA prior to use.

1.13.4 The Contractor shall provide all equipment, devices, tools and machinery such as cranage, staging, scaffolding and rigging necessary for the completion of the work in this specification.

1.13.5 The Contractor shall provide waste disposal services for any oil, oily waste or other hazardous or controlled waste generated by the work of this specification. The Contractor shall provide waste disposal certificates for all of the above generated waste and the disposal certificates shall indicate that the disposal was in accordance with Federal, Provincial and Municipal regulations in effect.

## 1.14 GOVERNMENT SUPPLIED MATERIALS & TOOLS

1.14.1 All tools are Contractor supplied unless otherwise stated in the technical specifications.

1.14.2 Where tools are supplied by the TA they shall be returned by the Contractor in the same condition as when they were borrowed. Borrowed tools shall be inventoried and signed for by the Contractor on receipt and return to the TA.

1.14.3 Any Government supplied material (GSM) shall be received by the Contractor and stored in a secure warehouse or storeroom having a controlled environment appropriate for the equipment as per manufacturer's instructions.

## 1.15 RESTRICTED AREAS

1.15.1 The Contractor shall not enter the following areas except to perform work as required by the specifications: all cabins, offices, workshops, Engineers' office, Wheelhouse, Control Room, all washrooms, Galley, Mess Rooms, Lounge areas and any other areas restricted by signage.

1.15.2 The Contractor shall give the TA 24 hours advance notice prior to working in any accommodation areas or office spaces. This will allow CCG adequate time to move personnel and secure the areas.

## 1.16 CONTRACTOR INSPECTIONS AND PROTECTION OF EQUIPMENT AND THE WORKSITE

1.16.1 Before the Contractor starts any work on the vessel the Contractor's Quality Assurance Representative and the TA shall walk through each space and area where work is to take place, including access and removal routes and areas adjacent to those where the work is to be done as a result of this specification. The Contractor's Quality Assurance Representative shall take digital pictures of each area showing the outfit therein and download the photos in JPG format onto a CD or DVD. Each picture shall be dated and labeled as to the location on the vessel. Two copies of this CD or DVD are to be provided to the TA for reference purposes within 48 hours of the start of the contract.

1.16.2 The Contractor shall coordinate an inspection with the TA on the condition and location of items to be removed prior to carrying out the specified work or to gain access to a location to carry out the work.

1.16.3 Any damage incurred as a result of the Contractor's work and that is attributable to the Contractor's work performance shall be repaired by the Contractor at no cost to Canada. Materials used in any replacement or repairs shall meet the criteria for Contractor supplied material noted above in section Contractor Supplied Materials and Tools.

1.16.4 The Contractor shall protect all equipment and surrounding areas from damage. Work areas are to be protected from the ingress of water, welding and blasting grit etc. Temporary covers to work areas shall be installed.

1.16.5 The Contractor shall protect the vessel from the possibility of vermin infestation (insect/mammal). If an infestation does occur during the contract period the Contractor

shall bear all costs to ensure the vessel is made vermin free before the vessels departure and contract completion.

1.16.6 Once all known work and final clean-up has been completed the Contractor's QA Representative and the TA shall perform a 'walk through' of the vessel to view all areas where work was performed by the Contractor. Any deficiencies or damage shall be noted and compared with the pictures, and if deemed to be caused by the Contractor, shall be the responsibility of the Contractor and shall be repaired by the Contractor at no cost to the Coast Guard.

## 1.17 RECORDING OF WORK IN PROGRESS

1.17.1 The TA may record any work in progress using various means including, but not limited to photography and video, digital or film.

## 1.18 LIST OF CONFINED SPACES

1.18.1 The list of the vessel's identified confined spaces is available from the Chief Engineer.

## 1.19 LEAD PAINT AND PAINT COATINGS

1.19.1 The Contractor shall not use lead based paints.

1.19.2 CG ships have been painted with lead based paints in the past and as a result some of the Contractor's processes such as grinding, welding and burning may release this lead from the coatings. The Contractor shall ensure that coatings in the affected work areas are tested for lead content and that the work is performed in accordance with applicable Federal and Provincial regulations. The Contractor shall have in place a Lead Abatement Program in order to deal with any lead paint discovered in the course of this statement of work.

1.19.3 The Contractor shall provide HC product approval for underwater hull surface paints controlled by HC and the Pest Management Regulatory Agency.

## 1.20 ASBESTOS CONTAINING MATERIALS

1.20.1 The Contractor shall not use any asbestos containing materials.

1.20.2 Handling of any asbestos containing materials shall be performed by personnel trained and certified in the removal of asbestos in accordance with Federal, Provincial and

Municipal regulations in effect and in accordance with the Fleet Safety and Security Manual. The Contractor shall provide the TA with disposal certificates for all asbestos containing material removed from the vessel indicating that the disposal was in accordance with Federal, Provincial and Municipal regulations in effect.

## 1.21 REMOVED MATERIALS AND EQUIPMENT

1.21.1 All removed equipment as a result of this specification shall remain the property of the CCG unless otherwise instructed.

## 1.22 WELDING CERTIFICATION

1.22.1 For any item requiring the application of fusion welding for steel structures, the Contractor or his Sub-Contractors shall be certified by the Canadian Welding Bureau, in accordance with CSA\ACNOR W47.1 -– latest revision, Division 1 or 2.

1.22.2 For any item requiring the application of fusion welding for stainless steel structures, the Contractor or his Sub-Contractors shall be certified by the Canadian Welding Bureau, in accordance with AWS D1.6 as permitted by CSA\ACNOR W47.1 – latest revision.

1.22.3 For any item requiring the application of fusion welding to aluminum structures, the Contractor or his Sub-Contractors shall be certified by the Canadian Welding Bureau, in accordance with CSA\ACNOR W47.2 – latest revision, Division 1 or 2.

1.22.4 The Contractor shall provide documentation to the TA clearly identifying the welding certification of all employees performing any welding included in this specification.

## 1.23 ELECTRICAL INSTALLATIONS

1.23.1 All electrical installations and repairs shall be carried out in accordance with the latest revisions of Transport Canada Marine Safety Electrical Standard TP127E and IEEE Standard 45 Recommended Practice for Electrical Installation on Ships.

1.23.2 All installations of electronic equipment shall be carried out in accordance with Canadian Coast Guard Telecommunications and Electronics publication CGTS-3(E) entitled “General Specification for the Installation of Shipboard Electronic Equipment”

## 2.0 SERVICES

### 2.1 GENERAL

2.1.1 The Contractor shall supply the following services to the vessel for the entire work period and disconnect upon completion of the work period. The Contractor shall be responsible for the re-establishment of services if the vessel is moved during the work period.

2.1.2 Each of the services noted in section 2 shall be separately priced in the Contractor's submitted bid.

2.1.3 The Contractor shall be responsible for supplying all material, hoses, cables etc. and labour required to connect and disconnect the services to the vessel. Unless otherwise stated these services shall be available 24 hours a day 7 days a week for the entire contract period.

2.1.4 All staging, cranage, screens, lighting and any other support services, equipment and materials necessary to carry out the work identified in these specifications shall be Contractor supplied.

2.1.5 All deficiencies resulting from work carried out in this specification must be repaired at contractor's expense.

2.1.6 Prior to the start of disassembly, precautions shall be taken to ensure that the reassembly and reinstallation of all system and equipment components will be as per original and in accordance with manufacturer's specifications.

2.1.7 The Contractor shall report by email all deficiencies as they are identified, to the TA and TI and make recommendations for their prompt remedial action.

2.1.8 The Contractor shall responsible for removing to gain access to work site, for example, floor, frames, pumps, insulation and etc.

Upon completion of the work carried out in this specification the contractor must restore everything removed for gain access to original installed condition.

## 2.2 BERTHING

2.2.1 The berthing and mooring facilities shall be suitable for a vessel of this size in local weather / tide / sea conditions. Fenders shall be supplied by the Contractor to prevent the vessel from contacting the wharf in local weather / tide / sea conditions.

2.2.2 The length of the dock shall be a minimum of 90% of the length of the vessel (LOA).

2.2.3 During the contract period, when the ship is not in the dry dock, the ship shall be berthed at the Contractor's wharf at a safe and secure location with a minimum clearance of one meter under the vessel at extreme low water level conditions to ensure the vessel will not touch bottom.

2.2.4 The Contractor shall be responsible for all movements of the vessel, including berthing and mooring of the vessel for the contract period and arrangements and costs for line handlers, tugs and pilots.

## 2.3 MOORING LINES

2.3.1 The Contractor shall be responsible for providing the necessary mooring lines and labour required to secure the vessel alongside the facilities. Ship's mooring lines are not to be used.

## 2.4 GANGWAYS

2.4.1 Contractor shall supply the labour and services required for the installation and removal of one gangway, complete with handrails, safety nets and lighting for the duration of the contract while the vessel is moored.

2.4.2 Any movement of the gangway required by the Contractor will be at the expense of the Contractor.

## 2.5 ELECTRICAL POWER

2.5.1 The Contractor shall be responsible for supplying 600 Volt Alternating Current, 3 phase 4 wire with a floating neutral, 60 Hertz, 200 Ampere service electrical power for the duration of the contract.

2.5.2 The vessel's shore power cable and associated plug connection may be used by the Contractor. However, the Contractor is responsible to replace the entire length of cable with an equal quality, size and length of cable should the shore power cable be damaged during the contract period. Damage to the shore power cable also includes damage to the

plug-in connections which shall be replaced if damaged. Splicing any section of the cable is not acceptable.

2.5.3 The Contractor shall be responsible for ensuring that the correct phase rotation on a 3 – phase system is established prior to energizing the ship's distribution system. Any changes to the ship's power system to accommodate the Contractor supplied shore power connections shall be returned to the original setup by the Contractor upon the disconnection of the Contractor supplied power cable and equipment. All work shall be carried out by certified electricians.

2.5.4 The Contractor shall supply all power to the vessel through a Contractor supplied kilowatt-hour meter. The Contractor shall read the kilowatt-hour meter when the connection is made and once again when the power is disconnected. Both readings of the meter shall be witnessed by the TA. The Contractor shall provide a calibration certificate for the kilowatt-hour meter.

2.5.5 Supplying (power cable) and labor to plug and unplug a power supply 220 VAC, 1 phase 100A capacity. Provide a price for total con-sum estimated at 10,000 kw-hr.

2.5.6 The final price of kwatt/hour must be determined at the end of the contract period, when a meter reading was made. The cost of electricity consumption will be adjusted upwards or downwards on a PWGSC-TPSGC 1379.

## 2.6 FIRE MAIN SYSTEM

2.6.1 The Contractor shall supply a separate and continuous uninterrupted water supply through isolation valves via a calibrated pressure regulator to the ship's fire main system. Supply pressure shall be at 80 to 110 psig. Pressure shall be maintained at all times to the vessel. The isolation valves shall be Contractor supply and install in a double block and drain valve arrangement.

## 2.7 CRANAGE

2.7.1 The Contractor shall quote on 20 hours for the general services of a crane, including an operator and a rigger, for the support of the vessel's day-to-day activities, i.e. the moving of stores from the vessel to the Contractor's facilities ashore while the vessel is in the dry-dock. The Contractor shall provide a Log Book of crane activities which shall contain the printed name and signature of the CCG representative that required this service. The duration of time for each use of the crane services shall also be recorded in this log book. The Log Book shall be available for viewing by the TA at all times. The contractor shall inform the TA and Contracting Authority when 16 hours of usage has been accumulated. Actual usage shall be prorated accordingly.

## 2.8 GARBAGE REMOVAL

2.8.1 A garbage container or dumpster a minimum of 16 cubic meters shall be located adjacent to the vessel. Garbage shall be removed from the vessel daily including week-ends and holidays. Ship's personnel shall comply with any recycling programs that the Contractor has in place, provided the appropriate containers are made available adjacent to the vessel.

2.8.2 The Contractor shall also supply a green bin for food waste, the bin shall be located adjacent to the vessel. The green bin shall also be emptied daily.

## 2.9 PORTABLE TOILET

2.9.1 The contractor shall provide a portable toilet to the vessel forward of the wheel house while vessel is on the dry dock. This shall consist of a single stall, unisex, lockable, portable toilet equipped with either wash basin or equivalent method of cleansing and sanitizing hands. This facility must be serviced, cleaned and sanitized by the Contractor as necessary and at least once per week to maintain it in a clean, stocked and sanitary condition. The minimum requirement for this facility will comply with all Federal and Provincial OSH regulations.

## 2.10 VESSEL SECURITY DURING QUIET HOURS

2.10.1 The Contractor shall maintain security for the vessel outside of Contractor regular scheduled work hours. Please refer to FSSM 8.B.1 Security of the Vessel.

2.10.2 In the event of any ‘hot work’ procedures being carried out during the day, surveillance rounds shall be carried out hourly for at least 3 hours in the surrounding area of the hot work after the beginning of quiet hours.

2.10.3 If the Contractor has additional work shifts scheduled for the vessel during the contract period, the Contractor may start the surveillance rounds at the end of the last shift, recognizing that the Contractor is fully responsible for the safety and security of the vessel at all times.

2.10.4 The Contractor shall provide a Log Book on the vessel which shall contain the printed name and signature of the security staff upon completion of each round. The Log Book shall be available for viewing by the TA at all times.

## 2.11 PARKING AT CONTRACTOR’S FACILITY

2.11.1 The contractor shall provide three (3) parking spaces for exclusive use of the TA and Project Team for duration of the contract period.

## 3.0 VESSEL PARTICULARS

| | |
|---|---|
| Name: | CCGS Corporal Teather |
| Type: | Twin Screw, Mid Shore Patrol Vessel |
| Class: | Near Coastal Class I |
| Year Built: | 2012 |

Principal Dimensions:

| | |
|---|---|
| Gross Tonnage: | 253 t |
| Net Tonnage: | 75 t |
| Construction: | Material Steel |
| Vessel Length: | 39.72 m |
| Vessel Breadth: | 7.00 m |
| Vessel Depth: | 3.80 m |

Propulsion: Twin screw, Controllable Pitch Propeller, MTU S4000 M93L 12V

## 4.0 DRY-DOCKING

### 4.1 IDENTIFICATION

4.1.1 The Contractor shall supply all labor, materials and facilities required for the berthing, mooring, dry-docking and storage of the vessel.

4.1.2 The Contractor shall prepare dry-docking blocks and necessary shoring to maintain the true alignment of the vessel's hull and machinery throughout the docking period.

4.1.3 The vessel shall be dry-docked such that all docking plugs, transducers, anodes and sea inlet grids are clear and accessible. A minimum clearance of 1.3 meters (4 feet) shall be available between the keel and the dry-dock. If any hull fittings are covered, the Contractor shall be responsible for all labor and materials required for making alternative arrangements to drain tanks and/or move blocks to gain access to areas of specified work. Please refer to Docking plan.

4.1.4 The Contractor shall provide a ground cable between the vessel and the dock while the vessel is dry-docked as per TCMS Ship Safety Bulletin 6/89.

4.1.5 The Contractor shall supply and erect at least one vessel access-way in compliance with WCB regulations for the duration of the docking period. The Contractor shall be responsible for the safe maintenance of the access-way.

4.1.6 The Contractor shall advise the Technical Authority of the details of any major changes in the distribution of weights on the vessel while the vessel is dry-docked. This information shall be given to the Technical Authority prior to close of contract.

### 4.2 REFERENCE MANUAL

4.2.1 CCGS Corporal Teather Stability Book

### 4.3 DELIVERABLES

4.3.1 The Contractor shall provide documentation of the following information to the TA prior to the close of the contract:

- Kilowatt hour meter readings at connection and at disconnection
- Oil Disposal Certificate
- Electrical connections for steering gear units

4.3.2 Once the drain plugs placed back in the right places, all tanks that have been emptied should be filled to the same level as that which they were prior to dry docking.

4.3.3 Before the refloating of the ship, all the transducers are required be leached with a solution of mild detergent and water to be free of any contaminants and all marine fouling. Once washed, transducers should be rinsed with a large volume of fresh water to ensure that no soap residue is left on their surface.

## 5.0 UNDERWATER HULL INSPECTION

### 5.1 IDENTIFICATION

5.1.1 The Contractor shall make arrangements for Lloyd's Class inspection of the underwater hull area shell plating and an FSR paint system condition inspection.

5.1.2 The underwater hull survey inspection shall be carried out in accordance with the Classification Society's survey requirements for a type of this vessel.

5.1.3 The underwater Hull Inspection shall identify areas of the hull that need to be grit blasted and recoated to the paint manufacturer's requirements. This inspection shall be completed within 48 hours of docking the vessel.

5.1.4 The Contractor shall carry out all Lloyd's Class prescribed repairs and TA approved FSR recommended repairs; this work will be negotiated using form PWGSC 1379, as applicable.

### 5.2 REFERENCES

5.2.1 Product Data

5.2.1.1 Interspeed 640, Intershield 300, Intergard 263, Intershield 300, Intergard 263, Interthane 990 Product Data and Application Sheets

5.2.2 Drawings

| **Drawing Number** | **Description** | Electronic # |
|---|---|---|
| AF6096-10000-14 | Docking Plan 1-2 and 2-2 | |

| | | |
|---|---|---|
| AF6096-10000-01 | Midship and Other Sections Plan | |
| AF6096-10000-03_01 | Shell Expansion | |
| AF6096-10000-04 | Watertight Bulkheads Plans | |
| AF6096-50000-03 | Valve Schedule | |
| AF6096-63100-01_01 | Paint Schedule | |
| AF6096-63300-01 | Scheme of Cathodic Protection | |
| AF6096-89940-01_01 | General Arrangement Plan 1-2 | |
| AF6096-89940-01_02 | General Arrangement Plan 2-2 | |
| AF6096-89940-02_01 | Tank Arrangement & Capacity Plan | |
| AF6096-89940-03_01 | Line Plan | |
| AF6096-89940-08_01 | Draft Marks and Load Line Marks Plan | |

5.2.3 Regulations

5.2.3.1 Canada Shipping Act, 2001 (2001, c. 26) Hull Inspection Regulations (C.R.C., c.1432)

5.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

5.2.4 Standard

5.2.4.1 Coating Manufacturer's Specifications

5.2.4.2 CG Fleet Circular FC 08-2007

## 5.3 TECHNICAL

### 5.3.1 General

5.3.1.1 Underwater Hull Area ≈ 330 $m^2$ (≈3,552 $ft^2$)

5.3.1.2 The Contractor shall hydro-blast the underwater hull area of the vessel to the deep load line within 24 hours of docking. Hydro-blasting shall be done with a minimum of 5,000 PSI pressure.

5.3.1.3 The Contractor shall remove all the sea-chest grates and clean the sea chest. The Contractor shall be responsible to reinstall the sea-chest grates after the Lloyd's inspection. The grates shall be reinstalled in the same manner as originally found.

5.3.1.4 Once clean, the Contractor shall schedule the Lloyd's inspection of the underwater hull structure and condition for the earliest opportunity following vessel dry-docking but within the 48 hours of docking.

5.3.1.5 The Contractor shall supply all necessary staging and man lifts for the work of this specification, including inspection by Surveyors, TA and IA.

5.3.1.6 During the vessel underwater hull inspection up to the deep load line all areas with poor coating adhesion or lack of coating shall be recorded on a copy of the shell expansion plan by the Contractor and verified by the Inspection Authority. These areas shall be recoated as per Paint Manufacturer specification.

5.3.1.7 The Contractor shall quote on 200 square meters of painting to be recorded on the Price Data Sheet. Actual painting service shall be prorated accordingly.

5.3.1.8 This inspection shall also include the inside of the bow thruster tunnel.

5.3.1.9 The Contractor shall carry out all Lloyd's surveyor prescribed repairs in accordance with all applicable standards and regulations including those identified in 1.19. This work will be negotiated using form PWGSC 1379, as applicable

5.3.1.10 The Contractor shall quote on 50 meters of welding, one (1) welding pass. Actual welding services shall be prorated accordingly. Price per meter cost shall be recorded on the Price Data Sheet.

5.3.1.11 All materials used for the prescribed repairs shall meet or exceed original specifications and shall be in compliance with applicable regulations and standards.

5.3.1.12 The Contractor shall schedule the Lloyd's inspection of all prescribed repairs following their completion and prior to the coating application.

5.3.1.13 All new and disturbed metal resulting from the prescribed repairs shall be prepared and coated in accordance with Coating Manufacturer's Specification.

5.3.1.14 All surface preparation and recoating shall be performed by a Contractor specialized in the application of marine exterior hull coatings for ships. The Contractor shall prepare the surface of the underwater hull area in accordance with the coating manufacturer's

requirements and as follows: The area to be recoated shall be blasted to SSPC-SP10 (Sa2-½ Swedish Standard) with abrasive providing minimum amplitude of 80 microns. All necessary steps shall be taken after blasting to minimize steel oxidation by applying the coating in accordance with the paint manufacturer's instructions. All edges to the existing coating shall be feathered and blown clean with compressed air prior to the coating application. According to our record, coating on the underwater hull is one coat of Intersheild 300 @5 mils, one coat of Intergard 263@4 mils, and one coat of Interspeed 640@4 mils.

5.3.1.15 Where ambient air temperatures may become a problem, the Contractor shall take steps to ensure that the painting and curing of the underwater hull coating system will be completed before the completion date of the contract.

5.3.1.16 All existing coatings on all surfaces identified for recoating, shall be completely removed, contained and disposed of by the Contractor in accordance with applicable territorial and federal environmental regulations.

5.3.1.17 All underwater areas, not requiring grit blasting, shall be protected from damage and contamination during surface preparation and recoating. These areas include all ship side valves, port and starboard propellers, all rudder bearings and it's cover, bow thruster blades, all anodes, speed log and all depth sounding appliances, etc.

5.3.1.18 All above water line surfaces, accommodation area, scuttles, port holes, windows, deck machinery, susceptible to damage from surface preparation and coating application overspray shall be protected accordingly.

5.3.1.19 The Contractor shall be responsible for the cleanup of all blasting grit, debris and overspray from the vessel's interior and exterior decks.

5.3.1.20 The Contractor shall ensure that all coatings are applied within the allotted dry dock time period in order to allow for the full and proper curing of the coating to the vessel's hull prior to immersion. Any application that results in an unacceptable coating to the National Association of Corrosion Engineers (NACE) certified FSR and TA shall be redone (blasting included) at the Contractor's expense.

5.3.1.21 The Contractor shall have the attending Lloyd's surveyor inspect the shell plating. A survey credit shall be obtained from Lloyd's for the inspection and certification of the shell plating. The Contractor shall present this survey credit to the Inspection Authority and the Technical Authority prior to the flooding of the dock to re-float the vessel. The Contractor shall notify the Inspection Authority and the Technical Authority so that these authorities may witness the shell plating inspection by the Lloyd's Surveyor.

### 5.3.2 Draft Markings

5.3.2.1 The Contractor shall renew the following draft markings on the vessel by grit blasting clean each draft mark to the bare steel, re-punch the outline of the draft mark if required and applying the Interspeed 640 for under parts. The Contractor shall supply and apply

2 coats of International Interthane 990 white paint (white) to each of the below mentioned markings within the punch outlines marked. The renewal of these marks shall be done after the final painting and curing of the underwater hull coating.

5.3.2.2 Forward: Both Port and Starboard side draft markings including the 2.4M and 1.6M meter markings for a total of 10 markings to be renewed.

5.3.2.3 Aft: Both Port and Starboard side draft markings including the 2.0M and 2.8M meter markings for a total of 10 markings to be renewed.

5.3.2.4 When renewing the draft markings the Contractor shall ensure that the draft markings are the correct height and obliqueness to the hull, representing the true draft of the marking and vessel and are acceptable to the attending Lloyd's Inspector.

5.3.2.5 The Contractor shall renew the Port and Starboard Plimsoll markings at mid-ship including all load lines and mid-ship markings via the same procedure as outlined above for the draft marks.

## 5.4 PROOF OF PERFORMANCE

### 5.4.1 Inspections

5.4.1.1 The Contractor shall afford the IA and TA the opportunity to witness the Lloyd's inspection of the underwater hull prior to and following all prescribed repairs.

### 5.4.2 Testing/Trials

5.4.2.1 The Contractor shall perform nondestructive testing as requested by the attending Lloyd's Surveyor on completed underwater hull repairs. This work will be negotiated using form PWGSC 1379, as applicable.

5.4.2.2 The Contractor shall perform and record Wet Film Thickness readings during each application of underwater surface area as required by the FSR. The readings and their locations shall be contained in the final report.

### 5.4.3 Certification

5.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 5.5 DELIVERABLES

### 5.5.1 Documentation (Reports/Drawings/Manuals)

5.5.1.1 Following the Lloyd's underwater hull inspection and prior to carrying out the prescribed repairs, the Contractor shall submit to the TA in PDF format a copy of drawing AF6096-10000-03_01 Shell Expansion outlining in red all proposed plate repairs.

5.5.1.2 Prior to the close of contract, the Contractor shall submit a copy of drawing AF6096-10000-03_01 Shell Expansion outlining in red all completed plate repairs.

5.5.1.3 The Contractor shall provide a coating application report from the FSR to the TA that details all of the particulars of the coating application process as completed by the Contractor. The report shall include details of all environmental conditions at the time any hull coatings were applied and at which areas on the hull the coating was applied. This shall include but not be limited to the dry and wet bulb temperatures, relative humidity, dew point and the times when painting was started and stopped. Also to be included in the report shall be the temperature of the product at application time as well as wet and dry film thickness gauge readings.

5.5.1.4 Prior to the close of contract, a comprehensive report covering all completed work shall be submitted to the IA and TA in accordance with 1.11.

## 6.0 ANODES

## 6.1 IDENTIFICATION

The Contractor shall remove and replace all wasted and/or defective hull anodes on the underwater hull of the vessel.

## 6.2 REFERENCES

### 6.2.1 Manual:

| NO. | Description |
|---|---|
| 1 | Hydraulic Thruster (PKK 24 TRAC (24) 75 kw) Installation and Operation |
| 2 | 24 TRAC ASSY drawing # 29351 |

**6.2.2 Drawings:**

| Drawing Number | Drawing Title | Electronic File Name |
|---|---|---|
| AF6096-89940-01_01 | GENERAL ARRANGEMENT PLAN_1_2 | |
| AF6096-89940-01_02 | GENERAL ARRANGEMENT PLAN_2_2 | |
| AF6096-63300-01 | Scheme of Cathodic Protection | |
| 6096-O-6330-001 | Anodes Plan | |

**6.2.3 Regulations**

6.2.3.1 Canada Shipping Act, 2001 (2001, c. 26) Hull Inspection Regulations (C.R.C., c.1432)

6.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

**6.2.4 Standard**

6.2.4.1 N/A

**6.3 TECHNICAL**

**6.3.1 Anodes**

6.3.1.1 All sacrificial hull anodes (AF6096-89940-01_01) shall be visually inspected for defects and findings recorded. Recommendations for replacement shall be made accordingly. List of 29 anodes.

6.3.1.2 The Contractor shall make arrangements for Llyod's inspection of the anodes prior to, and following all prescribed renewing. The Contractor shall remove all wasted and/or damaged anodes of the vessel and grind smooth all previous anode weld connections. The Contractor shall fit new anodes in the same locations as the removed anodes. This shall be done after the hull coating has been applied. All weld areas shall be touched up with the hull coating after the anodes have been fitted. All anodes not identified for replacement shall be protected prior to the application of any hull coatings. Any anodes that are covered with coating are to be renewed at the Contractor's expense.

6.3.1.3 The Contractor shall quote on replacing 10 of the 29 total anodes of the vessel. Anodes shall be Aluminum Disc Anode MME 28AB and Aluminum Hull Anode MME 26AA anodes type as per dwg 6096-O-6330-001.

6.3.1.4 A unit price per anode for removal and replacement is to be included in the pricing data sheet.

### 6.3.2 Sea Chest and Sea Bay Anodes

6.3.2.1 The Contractor shall remove all wasted and/or damaged sea bay and sea chest anodes.

6.3.2.2 The Contractor shall quote on replacing 7 of type MME26AA hull anodes include removing and installation.

6.3.2.3 The Contractor shall quote on replacing 5 of type MME28AB disc anodes include removing and installation.

6.3.2.4 All anodes shall be protected from the coating material to be applied in the sea chest and sea bay areas during the work execution of paint process if require. All anode protection shall be removed after completion of the coating application. Any anodes that are covered with coating are to be renewed at the Contractor's expense.

6.3.2.5 A unit price per anode removal and replacement is to be included in the pricing data sheet.

### 6.3.3 Bow thruster Anodes

6.3.3.1 The Contractor shall remove and replace all wasted and/or damaged thruster tunnel anodes. There are 2 anodes, Aluminum MME26AA each side of the thruster unit and total is 4.

## 6.4 PROOF OF PERFORMANCE

### 6.4.1 Inspection

6.4.1.1 The Contractor shall afford the IA and TA the opportunity to witness the Lloyd's inspection of the anodes prior to, and following all prescribed renewing.

### 6.4.2 Tests & Trials

6.4.2.1 The Contractor shall notify the Inspection Authority upon completion of this work item to afford the Authority the opportunity to verify the work has been completed as detailed in this Section. Verification of this work shall be performed before the ship undocking.

### 6.4.3 Certification

6.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 6.5 DELIVERABLES

### 6.5.1 Documentation (Reports/Drawings/Manuals)

6.5.1.1 Prior to the close of contract, a comprehensive report covering all work and replacements shall be submitted to the TI and TA in accordance with 1.11.

## 7.0 STORM VALVES & SEA CONNECTIONS INSPECTION

## 7.1 IDENTIFICATION

7.1.1 The Contractor shall remove, disassemble, clean and layout for Lloyd's inspection all storm valves and sea connections.

## 7.2 REFERENCES

### 7.2.1 Equipment Data

7.2.1.1 List of Sea Water Valves: (Total 10)

| ID # | Description | Location | Size mm |
|---|---|---|---|
| V256001 | Main Isolation Valve (P) | Engine Room FWD | 250 |
| V256002 | Main Isolation Valve (Stbd.) | Engine Room FWD | 250 |
| V256003 | FWD Sea Chest Isolation Valve | Bow Thruster RM | 100 |
| V256007 | Port Sea Chest Circulation Valve | Engine Room FWD | 100 |
| V256008 | Stbd Sea Chest Circulation Valve | Engine Room FWD | 100 |
| V256010 | Port Sea Chest Vent | Engine Room FWD | 150 |
| V256011 | Stbd Sea Chest Vent | Engine Room FWD | 150 |
| V256012 | FWD Sea Chest Vent Valve | Bow Thruster RM | 65 |
| V256013 | P Sea Strainer outlet<br>-To replace (valve provided by the ship) | Engine Room FWD | 250 |
| V256014 | Stbd Sea Strainer outlet<br>-To replace (valve provided by the ship) | Engine Room FWD | 250 |
| | | | |

7.2.1.2 List of Storm Valves (Total 4)

| ID # | Description | Location | Size |
|---|---|---|---|
| V526023 | Fuel Oil Spill LCR O/B Discharge | | 50 |
| V526029 | HVAC/DK LCR O/B Discharge | | 50 |
| V526031 | Wet Gear RM O/B Discharge | | 50 |
| V593091 | Sewage Treatment Plant O/B Disc | | 50 |
| | | | |

7.2.1.3 List of Overboard Valves: (Total 10)

| ID # | Description | Location | Size |
|---|---|---|---|
| V256032 | P O/B Discharge | Engine Room | 150 |

| | | | |
|---|---|---|---|
| V256035 | Stbd O/B Discharge | Engine Room | 150 |
| V256065 | ACU O/B Discharge | Engine Room | 65 |
| V256114 | Stbd ME Gear Box O/B Discharge | Engine Room | 40 |
| V256115 | P ME Gear Box O/B Discharge | Engine Room | 40 |
| V256131 | Cyclone Filter O/B Discharge | Engine Room | 25 |
| V520018 | Bilge O/B | Engine Room | 50 |
| V520019 | MMR Bilge O/B | Engine Room | 50 |
| V520056 | Bilge Eductor O/B | Engine Room | 80 |
| V593071 | O/B Discharge | | 32 |
| V530001 | RO units O/B Discharge | Bow Thruster Room | |
| V555009 | Fire main drain O/B | Bow Thruster Room | |

7.2.1.4 List of Blow down Air Valves (Total 10)

| **ID #** | **Description** | **Location** | **Size** |
|---|---|---|---|
| V551061 | Blow down Air Sea Chest (P) | | 25 |
| V551062 | Blow down Air Sea Chest (Stbd.) | | 25 |
| V551070 | Blow down Air RO Unit | | 15 |
| V551074 | Blow down Air FWD Sea Chest | Bow Thruster Room | 25 |
| V551075 | Blow down Air Bilge O/B valve | | 15 |
| V551076 | Blow down Air HVAC ACU O/B | | 15 |
| V551089 | Blow down Air Fire Water O/B | | 15 |
| V551126 | Blow down Air Gear Box P O/B | | 15 |
| V551127 | Blow down Air Gear Box Stbd O/B | | 15 |
| V551128 | Blow down Air Cyclone Filter O/B | | 15 |
| V551073 | Blow down Air AMR Bilge O/B | AMR (Port) | |
| V551071 | Blow down Air MMR Bilge O/B | MMR (Port) | |
| V551068 | Blow down Air Sewage O/B | MMR (Port) | |
| V551063 | Blow down Air Port O/B | MMR (Port) | |
| V551064 | Blow down Air Stbd O/B | MMR (Stbd) | |

### 7.2.2 Drawings

| **Drawing Number** | **Description** | Electronic # |
|---|---|---|
| AF6096-25600-01_01 | As Build Cooling Water System | |
| AF6096-52000-01_01 | Bilge Drainage & Dewatering System | |
| AF6096-52600-01_01 | Scuppers and Drains | |
| AF6096-55100-01_01 | Compressed Air System | |
| AF6096-59300-02_01 | Black Grey Water & Sanitary System | |

### 7.2.3 Regulations

7.2.3.1 Canada Shipping Act 2001, Hull Inspection Regulations (C.R.C., c. 1432)

7.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

**7.2.4 Standard**

7.2.4.1 N/A

## 7.3 TECHNICAL

7.3.1 The Contractor shall ensure, prior to the start of disassembly, that all precautions are taken to ensure that the reassembly and reinstallation of all system and equipment components will be as per original and in accordance with manufacturer's specifications.

7.3.2 The Contractor shall visually inspect all removed valves and report by email all deficiencies as they are identified, to the IA and TI and make recommendations for their repair or replacement. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable. Replacement cost to be recorded on Pricing Data Sheet.

7.3.3 The Contractor shall remove, disassemble, clean and layout for Lloyd's inspection all valves listed above.

7.3.4 Prior to reassembly and installation by the contractor, the Contractor shall arrange the attending Lloyd's Surveyor, the IA and TA the opportunity to visually inspect all valves as listed above.

7.3.5 Following inspection, all original and new valves shall be re-seated and reassembled using new CSM packing and gaskets.

7.3.6 All flange gaskets disturbed as a result of the valve servicing process shall be renewed using new CSM gasket material.

## 7.4 PROOF OF PERFORMANCE

**7.4.1 Inspections**

7.4.1.1 Following all valves servicing and prior to installation, the Contractor shall demonstrate to the attending Lloyd's Surveyor, the IA and TA the opportunity to inspect all valves as listed above.

### 7.4.2 Testing/Trials

7.4.2.1 Following the completion of all valve work, the Contractor shall test all valves as listed above for functionality and sealing integrity at their respective maximum system operating pressures. All deficiencies shall be repaired at the Contractor's expense prior to the closing of contract.

7.4.2.2 The Contractor shall arrange the attending Lloyd's Surveyor, the IA and TA the opportunity to witness the successful testing of all valves as listed above.

### 7.4.3 Certification

7.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 7.5 DELIVERABLES

### 7.5.1 Documentation (Reports/Drawings/Manuals)

7.5.1.1 Prior to the close of contract, a comprehensive report covering all work and replacements shall be submitted to the TI and TA in accordance with 1.11.

## 8.0 RUDDERS & BEARINGS INSPECTION

## 8.1 IDENTIFICATION

8.1.1 All rudders, rudder stocks and rudder bearings shall be prepared for Lloyd's inspection.

## 8.2 REFERENCES

### 8.2.1 Manual

| NO. | Description |
|---|---|
| 1 | Jastram Steering System Installation and Service Manual |

### 8.2.2 Drawings

| Drawing Number | Description | Electronic Number |
|---|---|---|
| AF6096-56100-02_01 | STEERING SYSTEM SCHEMATIC OF THE HYDRAULIC SYSTEM | |
| AF6096-56100-03_01 | STEERING GEAR ROOM ARRANGEMENT | |
| AF6096-10000-11_01 | Rudder construction Plan Sheet 1 of 2 | |
| AF6096-10000-11_02 | Rudder construction Plan Sheet 2 of 2 | |

### 8.2.3 Regulations

8.2.3.1 Canada Shipping Act, 2001: Marine Machinery Regulations (SOR/90-264)

8.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

### 8.2.4 Standard

8.2.4.1 N/A

## 8.3 TECHNICAL

8.3.1 The Contractor shall ensure that the vessel is docked such that a minimum height of 1.3 meters is maintained between the keel of the vessel and the dry dock.

8.3.2 The Contractor shall ensure all applicable safety precautions including equipment lock outs and tag outs are implemented prior to the start of work. The Contractor shall

disconnect and remove the Rudders from the vessel. Where electrical circuits and position switches are removed or disconnected, the connections shall be clearly marked and recorded and all disconnected wiring shall be marked and the connections recorded. Where linkages are fitted, their fitted distance shall be recorded prior to disconnection such that these distances can be re-established upon re-assembly.

8.3.3 The Contractor shall ensure, prior to the start of disassembly, precautions are taken to ensure the reassembly and reinstallation of all system and equipment components are as per original and in accordance with manufacturer's specifications.

8.3.4 The Contractor shall report by email all deficiencies as they are identified, to the TA and IA and make recommendations for their prompt remedial action.

8.3.5 The Contractor shall measure and record all rudder bearing clearances prior to removal of rudder stocks.

8.3.6 The Contractor shall be disconnect, remove and lay out for Lloyd's inspection two rudders and rudder stock assemblies.

8.3.7 The two rudders shall be visually inspected and also pressure tested for defects and the findings recorded. The Contractor shall remove the drain plug and shall perform the pressure test of not more than 3 psi for 1 hour witnessed by Lloyd's Surveyor, TA and IA. Recommendations for repairs shall be made accordingly. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.8 The all rudder stocks shall be visually inspected for defects, diameters measured and findings recorded. Recommendations for repairs shall be made accordingly. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.9 All rudder stock keyways shall be inspected for defects using NDT LP Level II testing in full compliance with standards. All findings shall be recorded. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.10 The top rudder bearings and bearing fasteners for both rudder stocks shall be visually inspected for defects and findings recorded. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.11 The rudder carrier bearings for both rudder stocks shall be visually inspected for defects and findings recorded. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

8.3.12 Following inspection, both rudder assemblies shall be reassembled by the Contractor as per original and in accordance with manufacturer's specifications.

8.3.13 The Contractor shall remove the drain plugs from Port and Stbd. Skegs for inspection of tightness and vacuum or pressure test.

8.3.14 Before removing the Skegs drain plugs the Contractor shall ensure all applicable safety & environmental precautions are taken, to collect if any liquid inside in the Skegs.

8.3.15 The Contractor shall reinstall drain plugs from Skegs to original condition.

8.3.16 The Contractor shall re-install the rudders and reconnect all equipment and items removed during the removal of the rudders.

8.3.17 Care shall be taken to ensure that all values recorded prior to disassembly are achieved during assembly and that all electrical connections and otherwise are re-established as recorded.

8.3.18 The Contractor shall ensure that the tiller achieves a proper fit in accordance with manufacturer's specifications and that the tiller nut is hardened up in the presence of the Technical Authority.

8.3.19 Following the completion of all work, operational testing under full load shall be conducted on all disturbed equipment and systems until such time as all identified deficiencies have been corrected and full system functionality has been established.

## 8.4 PROOF OF PERFORMANCE

### 8.4.1 Inspections

8.4.1.1 Following the completion of all cleaning, inspection and repairs, and prior to reassembly, the Contractor shall afford the attending Lloyd's Surveyor, the TA and IA the opportunity to inspect all disassembled components. The Contractor shall set to work the rudder system, verifying that the rudder moves hard over to hard over and performs as per the installation manual.

8.4.1.2 The Contractor shall conduct a dock trial in the presence of the TA and the IA where the both the rudders systems are tested for correct operation in both directions and to ensure that proper indication is received on all system gauges.

8.4.1.3 Upon successful completion of the dock trial a 1 hour sea trial up to 100% engine load shall be conducted to verify the normal operation of all systems.

8.4.1.4 Sea trials will be completed once the Commanding Officer has confirmed that weather and seaway conditions permit.

### 8.4.2 Testing/Trials

8.4.2.1 Following initial testing and subsequent repairs, the Contractor shall afford the attending Lloyd's Surveyor, the TI and TA the opportunity to witness a comprehensive operational test under full load of all disturbed equipment and systems.

### 8.4.3 Certification

8.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 8.5 DELIVERABLES

### 8.5.1 Documentation (Reports/Drawings/Manuals)

8.5.1.1 A comprehensive report of all inspections including all findings, recommendations, test results and recorded measurements shall be prepared in accordance with 1.11. and submitted to the TA and IA prior to the close of contract.

## 9.0 ANCHOR AND CHAIN INSPECTION

## 9.1 IDENTIFICATION

9.1.1 The anchor and anchor chain shall be laid out for Lloyd's Surveyor inspection.

## 9.2 REFERENCE

### 9.2.1 Manual

9.2.1.1 N/A

### 9.2.2 Drawing

| Drawing Number | Drawing Title | Electronic File Name |
|---|---|---|
| AF6096-58100-01_01 | Anchor System Arrangement Plan | |

### 9.2.3 Regulation

9.2.3.1 Canada Shipping Act, 2001: Marine Machinery Regulations (SOR/90-264)

9.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

### 9.2.4 Standard

9.2.4.1 ISO 9712:2005, International Standards for Qualification and Certification of NDT Personnel

9.2.4.2 ANSI/ASNT CP-189-2006, ASNT Standard for Qualification and Certification of NDT Personnel

## 9.3 TECHNICAL

9.3.1 The Contractor shall clean and lay out the anchors and chains for Lloyd's Surveyor's inspection.

9.3.2 The Contractor shall arrange for the lowering and raising of the anchor, due to no hydraulic power available for operating the winch.

9.3.3 The Contractor shall ensure prior to the start of disassembly, precautions are taken to ensure the reassembly and reinstallation of all system and equipment are as per original and in accordance with manufacturer's specification.

9.3.4 The Contractor shall perform a thorough visual inspection of the anchor and chain for indications of excessive wear, wastage and other defects. All evidence of defects shall be recorded and brought to the attention of the attending Lloyd's Surveyor, the IA and TA.

9.3.5 Areas of concern shall be assessed in accordance within this specification; required repairs shall be actioned by the Contractor prior to the close of contract as unscheduled work. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

9.3.6 The Contractor shall have the anchor eye and anchor shackles inspected using liquid penetrant testing performed by a NDT LPT Level II certified Technician in full compliance with standards identified in 9.2.4. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

9.3.7 Following all repairs and replacements, the Contractor shall mark the anchor chain with stainless steel wire at each joining shackle. Links s adjacent to the joining shackle shall be prepped and painted white in accordance with paint manufacturer's recommendations. The number of painted links each side of the joining shackle shall correspond with the order number of the adjacent anchor side shot.

9.3.8 The Contractor shall arrange the chain locker for Lloyd's Surveyor inspection. The Contractor shall establish the confine space entry procedure prior to start of the inspection.

9.3.9 Prior to undocking, the chain and anchor shall be stowed as per original.

## 9.4 PROOF OF PERFORMANCE

### 9.4.1 Inspections

9.4.1.1 The Contractor shall afford the attending Lloyd's Surveyor, the IA and TA the opportunity to visually inspect the ranged anchor and anchor chain.

### 9.4.2 Testing/Trials

9.4.2.1 The Contractor shall afford the attending Lloyd's Surveyor, the IA and TA the opportunity to witness the successful operation of anchor and anchor chain during sea trials.

9.4.2.2 All defects associated with the contracted work shall be repaired at the Contractor's expense prior to closing the contract.

### 9.4.3 Certification

Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications including but not limited to shackles, links and other components replaced on the anchor and anchor chain assembly.

## 9.5 DELIVERABLES

### 9.5.1 Documentation (Reports/Drawings/Manuals)

9.5.1.1 Prior to the close of contract, a comprehensive report covering all work and replacements shall be submitted to the IA and TA in accordance with 1.11.

# 10.0 PROPELLER SHAFT SEALS AND SHAFT CLEARANCES

## 10.1 IDENTIFICATION

10.1.1 Port and Stbd shaft seals, shall be opened up for Lloyd's inspection

10.1.2 Port and Stbd propeller shafts clearances, inner, intermediate and outer, shall be measured and recorded for Lloyd's inspection

## 10.2 REFERENCE

### 10.2.1 Manual

| NO. | Description |
|---|---|
| 1 | Kamewa CP-A D Installation Manual (10Sooo239/49341-E) |
| 2 | Simplan Seal Manual |

### 10.2.2 Drawings

| Drawing Number | Drawing Title | Electronic File Name |
|---|---|---|
| 6096-24300-01_1 | Shaft Line arrangement | |

**10.2.3 Regulations**

10.2.3.1 Canada Shipping Act, 2001: Marine Machinery Regulations (SOR/90-264)

10.2.3.2 Lloyd's Register, Rules & Regulations for the Classification of Special Service Craft

**10.2.4 Standard**

10.2.4.1 N/A

**10.3 TECHNICAL**

10.3.1 The Contractor shall release the inboard side of the shaft seals Port and Stbd side. The Contractor shall take measures to protect all sealing surfaces of the shaft seal as described in the Simplan Seal Manual.

10.3.2 The Contractor shall ensure that prior to the start of disassembly, precautions are taken to ensure the reassembly and reinstallation of all system and equipment will as per original and in accordance with manufacturer's specification.

10.3.3 The Contractor shall open the FWD Sterntube Bearing covers to measure the bearing clearances. The Contractor shall measure and record the clearance reading between shaft and FWD Sterntube bearings in four places, which are top, bottom, Port and Stbd positions, to be witnessed by the Lloyd's Surveyor, IA and TA.

10.3.4 The Contractor shall open the Aft Sterntube Bearing covers from Port and Stbd sides to measure the bearing clearance. The Contractor shall measure and record the clearance readings between shaft and Aft Sterntube Bearing in four locations, which are top, bottom, Port and Stbd position witnessed by the Lloyd's Surveyor, IA and TA.

10.3.5 The Contractor shall remove the Rope Guard with Net Cutters from Port and Stbd side to measure and record the bearing clearance. The Contractor shall measure and record the clearance reading between shaft and Aft Bracket Bearing, in four locations, which are top, bottom, Port and Stbd position to be witnessed by the Lloyd's Surveyor, IA and TA.

10.3.6 The Contractor shall reassemble and reinstall shaft seals, Port and Stbd, in accordance with the Simplan Manual and shall be tensioned as per the manual.

10.3.7 The Contractor shall reassemble and reinstall the Aft Sterntube Bearing covers from Port and Stbd side and the contractor shall lock the screws, to original position original lock style.

10.3.8 The Contractor shall reassemble and reinstall the Rope Guard with Net Cutters from Port and Stbd side to original position original lock style.

Any deficiencies found during the inspection, shall be brought to the TA & IA for approval. Any approved repairs or replacements will be negotiated using form PWGSC 1379, as applicable.

## 10.4 PROOF OF PERFORMANCE

### 10.4.1 Inspection

10.4.1.1 Following the completion of taking the bearing clearances, and prior to reinstall, the Contractor shall afford the attending surveyor, TA and IA the opportunity to inspect the condition and witness the bearing clearance. The Contractor shall conduct a dock trial where the both the shaft systems are tested for correct operation in both directions and to ensure that proper indication is received on all system gauges.

### 10.4.2 Test and Trials

10.4.2.1 The Contractor shall notify the TA and IA upon completion of this work item to afford the Authorities the opportunity to verify the work has been completed as detailed in this section. Verification of this work shall be performed before the ship undocking.

10.4.2.2 The Contractor shall conduct a dock trial where the both propeller and shaft systems are tested for correct operation in all directions and to ensure that proper indication is received on all system gauges.

10.4.2.3 Upon successful completion of the dock trial a 1 hour sea trial up to 100% engine load shall be conducted to verify the normal operation of all systems.

10.4.2.4 Sea trials will be completed once the Commanding Officer has confirmed that weather and seaway conditions permit.

### 10.4.3 Certification

10.4.3.1 Prior to the transfer of custody back to CCG, certification and other documentation shall be submitted to the IA and TA attesting to the quality of new materials and components used in the completion of all work resulting from theses specifications.

## 10.5 DELIVERABLES

### 10.5.1 Documentation (Reports/Drawings/Manual)

10.5.1.1 Prior to the close of contract, a comprehensive report covering all measurements, work and replacements shall be submitted to the IA and TA accordance with 1.11.

## 11.0 LIST OF ACRONYMS

| | |
|---|---|
| CA | Contract Authority (PWGSC) |
| CCG | Canadian Coast Guard |
| CLC | Canada Labour Code |
| CSM | Contractor Supplied Material |
| CSA | Canadian Standards Association |
| CWB | Canadian Welding Bureau |
| DFO | Department of Fisheries and Oceans |
| FSSM | Fleet Safety & Security Manual (CCG) |
| FSR | Field Service Representative |
| GSM | Government Supplied Materials |
| HC | Health Canada |
| IEEE | Institute of Electrical and Electronic Engineers |
| IA | Inspection Authority (CCG) |
| LOA | Length Over All |
| MSDS | Material Safety Data Sheet |
| OHS | Occupational Health and Safety |
| PWGSC | Public Works and Government Services Canada |
| SSMS | Safety & Security Management System |
| TBS | Treasury Board of Canada Secretariat |
| TCMS | Transport Canada Marine Safety |
| TA | Technical Authority – Owner's Representative (CCG) |
| WCB | Worker's Compensation Board |
| WHMIS | Workplace Hazardous Material Information System |