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## SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise  
indicated, all other terms and conditions of the Solicitation  
remain the same.

Ce document est par la présente révisé; sauf indication contraire,  
les modalités de l'invitation demeurent les mêmes.

### Comments - Commentaires

### Vendor/Firm Name and Address

Raison sociale et adresse du  
fournisseur/de l'entrepreneur

### Issuing Office - Bureau de distribution

Ship Refits and Conversions / Radoubss et  
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11 Laurier St. / 11, rue Laurier

6C2, Place du Portage

Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> CCGS Terry Fox VLE	
<b>Solicitation No. - N° de l'invitation</b> F7049-200041/B	<b>Amendment No. - N° modif.</b> 024
<b>Client Reference No. - N° de référence du client</b> F7049-200041	<b>Date</b> 2022-03-24
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$\$MD-043-28394	
<b>File No. - N° de dossier</b> 043md.F7049-200041	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Daylight Saving Time EDT <b>on - le 2022-05-17</b> Heure Avancée de l'Est HAE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Pandini, Madeleine	<b>Buyer Id - Id de l'acheteur</b> 043md
<b>Telephone No. - N° de téléphone</b> (873) 353-9119 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

### **Solicitation Amendment # 024**

**This amendment is hereby raised :**

- 1. To include Questions and the Responses for the solicitation.**
  - 2. To announce an update to the Technical Data Package, TDP.**
  - 3. To update RFP Annex U.**
  - 4. To provide the updated Pricing Data Sheet (REV1).**
  - 5. To update SOW Part A GR 01.**
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#### **1. To include Questions and the Responses for the solicitation.**

A log (added at the end of this amendment) includes all previous Questions and Answers.  
This Amendment 024 adds questions ref 263 to 276 to the log.

#### **2. To announce an update to the Technical Data Package, TDP.**

The TDP and TDP updates are only available to those who have signed the non-disclosure agreement in Request for Proposal (RFP) Annex S - Non-Disclosure Agreement.

An update folder has been added at the link (provided to those eligible).

TDP Update 22.03.25 Folder includes:

- A Document Request Status Log "Document Request Status Log 22.03.25" – this file indicates requests for drawings and documents that have been received, and the status of each request (note that duplicate requests may exist);
- TPD Indices – Drawings and Documents; *and*
- Additional files, as requested, as indicated on the Document Request Status Log - refer to green highlights.

### 3. To update RFP Annex U.

- Delete (in its entirety):  
Annex U
- Insert (*edits are shown in bold italics*):

#### **ANNEX U** **NO-SUBSTITUTE LIST**

<b>Equipment</b>	<b>Defined in SOW Item</b>
Hull Cathodic Protection Equipment	11.4
Anti-Corrosion & Anti Fouling Equipment	11.6
Sandwich method repair for deck (engineering)	11.11
Governor	12.1
Steering Gear equipment	12.6
Stern-thruster motor and starter	12.8
Spare propeller blades	12.9
CPP Motors (control pitch propeller)	12.14
TEP Inverter equipment	14.5
Miscellaneous pumps	15.4
Fuel oil transfer equipment	15.8
Sewage treatment system equipment	16.4
Incinerator	16.10
<b><i>Deck Machinery Mechanical Service Hardware</i></b>	17.2
<b><i>Deck Machinery Electrical Drives Upgrade</i></b>	<b>17.3</b>
Autopilot upgrade	18.3
CCTV (camera System)	18.7
Gyro Compass	18.9
Wheelhouse layout & control equipment	19.7
Paint and Coatings	Several

### 4. To provide the updated Pricing Data Sheet (REV1).

**Attachment Filename:** annex\_annexe\_h\_rev1.zip (this version replaces the attachment annex\_annexe h.zip).

The Pricing Data Sheet spreadsheet has multiple Sheets (tabs), including Milestones and Life Cycle Cost (for proposed engines).

REV 1 edits have been indicated on the first sheet of the attachment.

## 5. To update SOW Part A GR 01.

Annex A - Statement of Work (SOW), located in [Annex A - Statement of Work](#) folder (included in the attachment 'annex\_annexe\_a\_REV1.zip') is revised.

In subfolder 2. SOW PART A; in file 'Part A GR Section – General Requirements', in file Part A GR Section - General Requirements REV 1:

Under section GR 01 GENERAL REFERENCE AND REQUIREMENTS:

A)

- Delete (in its entirety):
- 5.12
- Insert

### 5.12 CSA Standards

5.12.1.1 The following CSA Standards must apply:

Ref	CSA Standard	
a	CSA W47.1- Certification of Companies for fusion welding of steel, Division 1 or 2 and Annex M	
b	CSA W47.2-11- Certification of Companies for fusion welding of aluminum, Division 1 or 2	
c	CSA W59 - Welded Steel Construction	
d	CSA W 59.2 - Welded Aluminum Construction	
e	CSA W178.2 - Welding Inspector Certification	
f	CSA B52-99 - Mechanical refrigeration code	
g	CSA Code B64.10.17 – Selection and installation of backflow preventers	
h		
i	Note also the CCG Welding Specification CT-043-EQ-EG-001-E (KME#3049715 latest version) applies in addition to CSA and ABS standards	

### 5.12.2 ISO Standards

5.12.2.1 The ISO standards prescribed below are applicable as referenced in the SOW item or otherwise in the Regulations or Rules listed in section SOW Part A GR 1 sections 5.1 to 5.10.

Ref	ISO Standard	
a		
b	ISO 4406 – Hydraulic fluid power -- Fluids -- Method for coding the level of contamination by solid particles	
c	ISO 5894 - Ships and marine technology — Manholes with bolted covers	
d		
e		
f		
g	ISO 8861 - Shipbuilding — Engine-room ventilation in diesel-engined ships — Design requirements and basis of calculations	
h		
i		
j		
k	ISO 9943 - Shipbuilding — Ventilation and air-treatment of galleys and pantries with cooking appliances	
l	ISO 10816-1 - Mechanical vibration -- Evaluation of machine vibration by measurements on non-rotating parts -- Part 1: General guidelines	
m	ISO/TR 10949 - Hydraulic fluid power- Component Cleanliness Guidelines for achieving and controlling cleanliness of components from manufacture to installation	
n		
o		
p		
q	ISO/TS 16431 - Hydraulic fluid power – Verification of cleanliness	
r	ISO 18413 - Hydraulic fluid power – Cleanliness of parts and components – Inspection document and principles related to containment collection, analysis, and data reporting	
s		
t		

**B)**

- Delete (in its entirety):
- 5.13
- Insert

**5.13 Other Applicable Standards and Codes**

- 5.13.1.1 The standards prescribed below are applicable as referenced in the SOW item or otherwise in the Regulations or Rules listed in section SOW Part A GR 1 sections 5.1 to GR 5.10:

**Where applicable a contractor may propose an alternate standard for use subject to the authorization of the TA.**

Ref	Standard	
a		
b	AN/CGSB - ASTM F1321-14- Canadian General Standards Board, Standard Guide for Conducting a Stability Test (Lightweight Survey and Inclining Experiment) to determine the Light Ship Displacement and Centers of Gravity of a Vessel	
c	ASME Y14.100 - American Society of Mechanical Engineers Y14.100 - 2017 Engineering Drawing Practices - Nov. 14, 2017	
d	ASME B31 - Pressure piping standard series	
e	ASTM E84, entitled Standard Test Method for Surface Burning Characteristics of Building Material (as referenced in the VFSR)	
f	ASTM B88M-83 Standard Specification for Seamless Copper Water Tube	
g	ASTM F1166 Standard Practice for Human Engineering Design for Marine Systems, Equipment and Facilities as guidance	
h	ASTM F683 Standard Practice for Selection and Application of Thermal Insulation for Piping and Machinery	
i	ASTM F708: Standard Practice for Design and Installation of Rigid Pipe Hangers	
j		
k	ASTM E1729-05 - Standard practice for field collection of dried paint samples for subsequent lead determination	
l	American Water Works Association (AWWA): Backflow Prevention and Cross-Connection Control	

m		
n		
o	CAN/CGSB 3.11- Naval Distillate Fuel	
p		
q		
r	CAN/CGSB 48.9712 (latest edition)- Non-destructive testing – Qualification and certification of NDT Personnel	
s	CAN/ULC-S102-03 - Surface Burning Characteristics of Building Materials and Assemblies (As referenced in the VFSR)	
s	CAN/ULC-S114, Standard Method of Test for Determination of Non-Combustibility in Building Materials (as referenced in the Vessel Fire Safety Regulations)	
t		
u	EPS Report 1/RA/2 - Environmental Code of Practice for the Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems - Environment Canada	
v	EACO Environmental Abatement Council of Canada (Formerly 'Environmental Abatement Council of Ontario')  Lead Guideline for Construction, Renovation, Maintenance or Repair October 2014 (provided for guidance purposes)	
w	Food Safety Code of Practice, published by the Canadian Restaurant and Foodservices Association. (As referenced in the Maritime Occupational Health and Safety Regulations)	
x	Guidelines for Canadian Drinking Water Quality, prepared by the Federal-Provincial-Territorial Committee on Drinking Water and published by the Department of Health. (As referenced in the Maritime Occupational Health and Safety Regulations, s. 73(2))	
y	NACE – National Association of Corrosion Engineers, Surface preparation standards. NACE/SSPC Joint Surface Preparation Standards	
z	NFPA 306 2014 - Standard for the Control of Gas Hazards on Vessels	
aa	NFPA 10 - Standard for portable fire extinguishers	
bb	NSF/ANSI 2 - National Sanitation Foundation rated, Food Equipment.	

cc	NSF/ANSI 3: Commercial Warewashing Equipment	
dd	NSF/ANSI 4: Commercial Cooking, Rethermalization and Powered Hot Food Holding and Transport Equipment	
ee	NSF/ANSI 6: Dispensing Freezers	
ff	NSF/ANSI 7: Commercial Refrigerators and Freezers	
gg	NSF/ANSI 8: Commercial Powered Food Preparation Equipment	
hh	NSF/ANSI 12: Automatic Ice Making Equipment	
ii	NSF/ANSI 18: Manual Food and Beverage Dispensing Equipment	
jj	NSF/ANSI 20: Commercial Bulk Milk Dispensing Equipment	
kk	NSF/ANSI 51: Food Equipment Materials	
kk	NSF/ANSI/CAN/61 - 2020 Drinking Water System Components – Health Effects (As Referenced in the CCG Fleet Safety Manual 7.A.12 & 7.A.13)	
ll	PMBok 3rd Edition - A Guide to the Project Management Body of Knowledge (Project Management Institute guidelines to project management)	
mm	SMACNA (Sheet Metal & Air Conditioning Contractors' National Association) – HVAC Duct Construction Standards - Metal and Flexible	
nn	SNAME – T&R 4-16 Recommended Practices for Ship Heating, Ventilation & Air Conditioning Design Calculations	
oo	SNAME – Society of Naval Architects and Marine Engineers - Rules/Guidelines for Shop and Installation Trials- latest edition	
pp	SNAME (3-47)- Rules/Guidelines for Sea Trials-latest edition	
qq		
rr	United States Environmental Protection Agency [US EPA] Method 24 – Surface Coatings (As referenced in CCG FSM 7.A.13)	
ss	ACR: The National Air Duct Cleaners Association Standard for the Assessment, Cleaning and Restoration of HVAC Systems, 2021	

CCGS Terry Fox VLE - F7049-200041/B, Question and Answer Log		
Ref	Question	Answer
<b>Note that amendments 001 to 010 have been released separately and copied here, for convenience. Any discrepancy in language between the questions and answers will result in the original amendment wording taking precedence.</b>		
<b>AMENDMENT 001 - Ref 1 to 3</b>		
1	<p>Am I correct to interpret that if we (e.g. Company ABC - North America) were to send you an NDA (non-disclosure agreement) signed by the authorized representative of another legal entity of ours (e.g. Company ABC - Europe, where our international engineering team works), that we (Company ABC - North America) would be able share the confidential information (contents of the Technical Data Package, TDP) with the entire team (from Company ABC - Europe) in that legal entity? Or do you need an NDA for each one of those engineers (or employees)?</p>	<p>Correct. To share the information with other colleagues from a different entity (where Company ABC - North America needs to share information with Company ABC – Europe, to acquire their engineering expertise, for example), then Company ABC - North America and Company ABC - Europe will both submit NDAs, signed by each authorized representative, who will distribute the information (on a need-to-know basis) to their employees within their entity; each employee is not expected to sign an NDA.</p>
2	<p>Does Canada have specific guidelines for the transfer of information (from the TDP) to our suppliers &amp; subcontractors? Are they considered employees according to the terms used in Annex S (non-disclosure agreement)?</p>	<p>Anyone to whom the drawings or documents (contents of the TDP) are disclosed to, must sign a non-disclosure agreement (i.e. the entity's authorized representative must sign on that entity's behalf). Have your subcontractors and suppliers also sign the NDA and either:</p> <ul style="list-style-type: none"> <li>a) forward it to me (the signed NDA) on their behalf and then, you can send them the applicable TDP drawing/document; or</li> <li>b) forward the signed NDA and request that I send them the links (and any updates), and then you tell them which TDP drawing/document to use, exactly; or</li> <li>c) the supplier/subcontractor can send the NDA directly to me, then I will send them the link and updates, and you can tell them which TDP drawing/document to use (some suppliers have already sent me the NDA).</li> </ul>

3	When will the Pricing Data Sheet (PDS) for this project be published on BuyandSell.gc.ca?	The PDS is targeted to be published approximately a week before the first Site Visit day of November 30th.
AMENDMENT 002 - Questions 1 to 2 (ref 4-5)		
4	Are there going to be 4 complete days for the site visit to the vessel? Or will each group (such as a ship yard bidder, supplier, or engineering designer, for example) only have a predetermined time period for the visit?	Given the situation with the pandemic, Canada is going to assign time slots for the Site Visit to each group wanting to attend. Canada, therefore, needs to know the total number of groups attending in order to maximize the time slot duration on the vessel for each group. Amendment 001 requested your responses no later than 6 pm November 17, 2021. CCGS Terry Fox VLE (F7049-200041/B) - Buyandsell.gc.ca If you have not responded yet and would like to attend the Bidders' Conference or the Site Visit (or both), please respond so that Canada can determine and share the assigned vessel time slots and time slot durations with each party (on November 18), so that they can proceed with making arrangements.
5	I was discussing a potential site visit with our team this morning and basically the necessity to attend is somewhat influenced by the quality of the vessel 3d scans etc. When is the government intending to release this information? If not before the site visit will there be another opportunity to visit once this information is available?	3D scans have been made available, per SOW Part A GR 01 section 1.1.1.7 instructions (also indicated in SOW Appendix A, under 'Other Resources'). Additional virtual 3D scans will likely be available by November 22 (end of day). Another vessel viewing is not anticipated. Efforts will be made to accommodate late confirmers but these slots may not be guaranteed to be as long in duration as predetermined slots.
AMENDMENT 003 - Questions 1 to 2 (ref 6-7)		
6	Can videos and photographs be taken during the Site Visit - Vessel?	Videos and photographs are permitted for the purposes of clarifying the interpretation for the SOW.
7	When will the Pricing Data Sheet (PDS) for this project be published on BuyandSell.gc.ca?	The PDS is targeted to be published approximately a week before the Bidders' Conference on December 6.
AMENDMENT 005 - Questions 1 to 3 (ref 8-10)		
8	Can you kindly advise how this project has achieved an exemption from having ITB requirements?	There are a number of factors to consider in determining the applicability of the ITB Policy including, but not limited to, the project pre-tax dollar value, scope and duration as well as the portion of labour that will be carried out in Canada. An assessment was conducted and it was determined that the ITB Policy would not apply for the Terry Fox requirement.
9	Is this solicitation considered part of the NSS?	Yes, the Terry Fox VLE requirement falls under the National Shipbuilding Strategy.

10	<p>Under the NSS Canada has employed a successful contracting strategy of awarding a funded ancillary contract to the shipyard to perform detailed design work, followed by a funded definition contract to complete the detailed engineering work and produce an indicative price from which Canada can obtain funding or budget certainty.</p> <p>However, in this solicitation PSPC is expecting the bidder to be able to complete the VLE detailed design work during the bid phase, to a sufficient level of confidence, to offer a firm price. This is not possible to any acceptable level of accuracy. It is also unfair to ask bidders to take on this level of work at the bid phase. Bidders are aware that their efforts will lead to wildly inaccurate pricing and an unsuccessful VLE, even if determined the lowest responsive bidder.</p> <p>This procurement strategy is extremely high risk to both parties and will work contrary to the very successful contracting strategies currently employed under NSS.</p> <p>Will Canada re-consider this procurement strategy to allow for a balanced risk approach that will lead to a successful outcome for both the Bidder and Canada?</p>	<p>Canada acknowledges that ancillary contracts have been used in certain circumstances, however, they are not considered for competitive procurement processes under the NSS.</p> <p>Industry responses to the RFI posted in October 2020 confirmed the procurement approach, that being, to bundle the procurement of long lead items with the VLE work carried out at the shipyard. Canada is moving forward with this procurement strategy.</p> <p>Canada appreciates the level of effort required to prepare bid packages. The Terry Fox VLE is a unique work package that requires a different level of effort compared to previous refit/VLE requirements. Bidders are encouraged, as needed, to work with key suppliers, engineering and/or project management firms to develop their bid. Canada has included an initial 8 month work period after contract award to carry out detailed design work and procure the long lead items.</p>
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AMENDMENT 006 - Questions 1 to 3 (ref 11-13)		
11	<p>SOW item 12.1, section 3.4.2.2. The ME's must be medium speed, four stroke diesel engines, with medium speed being defined for the purpose of this SOW as being between 600 rpm and 750 rpm.</p> <p>SOW item section 12.1 3.4.2.20. The ME's must be capable of accommodating Combinator Mode (CM) of propulsion control wherein engine and propeller speed is variable and matched with propeller pitch to offer maximum PM efficiency of operation.</p> <p>Considering that, the Marine Industry recognizes that Medium speed engines are normally rated at up to 900 rpm and, as such, would "Medium Speed" engines that meet all other requirements be acceptable if rated at 900 rpm? What about the four strokes, is it mandatory or a 2-stroke engine would also be a possibility as well? We have both products and would like to be able to provide the most suitable quote, which could be a 2-stroke engine and its very cost attractive lifetime maintenance price.</p>	<p>The intent is that the four stroke engines provided will deliver the specified Maximum Continuous Rating (MCR) power requirement at a speed of between 600 and 750 RPM.</p> <p>Per SOW item 12.1 section 3.4.2.2, 'The ME's must be in-line, medium speed, four stroke diesel engines, with medium speed being defined for the purpose of this SOW as being between 600 rpm and 750 rpm.'</p>
12	In future amendments, is it possible to combine questions and answers so that the last amendment includes all the amendments for the project?	<p>This is typically done near the end of the bid period (approximately 2 weeks prior to the end of the bid solicitation period).</p> <p>Canada has reconsidered and is using this log (Dec 23, 2021, AMD 011)</p>
13	We note that many significant changes (per Amendment 005) were being made to Annex A - Statement of Work (SOW). Will a revised SOW be published in the near future to incorporate these changes?	<p>Yes. We are going to soon release a REV 1 to the SOW.</p>
AMENDMENT 007 - Questions 1 to 21 (ref 14-34), Bidders' Conference Minutes		
14	Para 2.7.1 - The Initial Work Period of eight months is inadequate for this work scope to be completed. Will Canada consider 14 months for this Definition and Engineering Phase (i.e. Initial Work Period)?	<p>The Initial Work period has an 8 month minimum duration prior to the vessel arrival and the start of the Vessel Work Period. It could be as long as 10 months, subject to the duration of the solicitation process. Not all equipment purchased is expected to be delivered during the Initial Work Period. Although most of the engineering work is expected to be completed by the Critical Design Review stage (refer to Annex V for PDR and CDR deliverables as well as article 7.33.1 in the RFP), Canada may authorize additional time for some engineering work during the Vessel Work Period. At this time, we will not increase the duration of the Initial Work Period.</p>
15	How many days will Canada take to analyse the bid (to evaluate the bid)?	<p>The bid evaluation period is estimated to last between one to two months</p>

16	<p>(question submitted outside the Conference): The proposed basis of selection is lowest cost compliant, using only mandatory criteria, with no rated elements. This approach poses risk to both Canada and the bidder as the lowest price with the least capable bidder is not a formula for project success. A lowest cost evaluation using only mandatory criteria provides no assurance of the capability or quality of the proposed solution. The addition of evaluated technical criteria will provide Canada a greater assurance of the contractor's capabilities. Consequently, the bidder requests a change to the evaluation criteria to include a mix of mandatory and evaluated technical criteria, with weighting assigned to both technical and price categories. Given the highly complex nature of this refit, limited timeframe and heavy engineering input, the Bidder recommends a best value selection method that scores price and technical merit in a ratio of 40:60.</p>	<p>The basis of selection and evaluation criteria method will not be changed. The mandatory criteria have been established to ensure that compliant bidders have the ability to carry out the Work (SOW) after Contract award.</p>
17	<p>Please confirm, at a suitable time, what the overall schedule is. The minimum period, with no gap between the engineering period and execution period seems to be 26 months. Is this correct?</p>	<p>The minimum Total Work Period is 26 months. The Vessel Work Period duration is fixed at 18 months (from April 1, 2022 to September 30, 2023), however the duration of the Initial Work Period is a minimum of 8 months. It could be as long as 10 months, subject to the duration of the solicitation process.</p>
18	<p>Evaluation Process. Can Canada define what are all "Eligible Mandatory Criteria?" How do these differ from the 11,000+ Must statements in the SOW? (and, also, as submitted outside of the Conference, below) The SOW contains over 11,000 "must" statements, meaning that there are effectively over 11,000 mandatory requirements. GR 01 section 1.4.1.3 states that all requirements are mandatory. Given that this is an RFP and not an ITT, will the bidder be allowed to propose alternatives to the 11,000 musts, provided that they meet the performance requirements related to those mandates? How will Canada evaluate the over 11,000 mandates?</p>	<p>Canada evaluates the mandatory criteria identified in the RFP (Annex P) in order to ensure the Bidder's ability to carry out the Work (SOW) after Contract award. The SOW includes contractual obligations (must statements) that the Contractor must meet after Contract award.</p>

19	In terms of a phased analysis of the bid, Annex H appears to be the only document for comparison between eligible bidders. Is there any technical evaluation scoring as well; especially since lifecycle costs and known work can be a significant number. The only technical aspect is if the replacement systems have a lower true life cost. That will significantly save for that technical solution. Is there any analysis of technical requirement weighted against these for pricing evaluation?	The Basis of Selection is for the lowest cost compliant bidder. To be compliant, the Bidder must satisfy the mandatory requirements listed in Annex P, in addition to submitting the requirements listed in the RFP, as highlighted in Annex O, the checklist guidance document. There are no point-rated evaluation criteria.
20	In Annex H – Table of life-cycle cost, the total cost includes a 15 year period for lube oil but only an annual cost for the fuel. Could Canada explain that? The thought behind comparing 15 years vs 1 year?	That is correct. A costing exercise was conducted and, from the results, it was decided to include an annual fuel cost in the total life cycle cost, so that it would not outweigh other relevant criteria.
21	The equipment warranty was indicated to be 1 year from acceptance. Is the acceptance milestone from equipment FAT or CCG SAT acceptance?	The equipment warranty starts after successful sea trials and acceptance by the Canadian Coast Guard.
22	Can a Bidder accumulate credits or transfer credits related to the IPC from other programs, much like what is done in the ITB program? For ITBs, if we have a program with unused credits (for ex-ample, the Louis Saint Laurent does not have an ITB but it does have Canadian work on it that we are allowed to credit to Davie's overall ITB budget; that credit can be used towards other programs that do requires an ITB (such as the ferry build program). Can the same be done for IPCs (for ex-ample, if another ship does not have an IPC requirement, but it does use Indigenous Participation; can that be credited and used towards the Terry Fox program or does the IPC need to be directly for the Terry Fox VLE? If we have contracts such as the one on the Louis St. Laurent that does not have a IPC requirement can we use credits from that project on this contract?	The response to this question shall be elaborated on in a subsequent amendment.
23	Annex P - Mandatory Technical Requirements. Can Canada confirm how compliance with the Mandatory Technical Requirements will be assessed. As these will not be scored, how will pass/fail be measured?	For mandatory technical requirements listed in Annex P, each requirement (M#) includes two parts: 1) The first part states the requirement; and 2) The second part identifies what needs to be submitted in order to demonstrate compliance. The Phased Bid Compliance Process (PBCB) provides opportunities where Canada may seek clarification or request additional information from Bidders. For details regarding the PBCB, refer to article 4.1.1 of the RFP.

24	<p>Within the PBCP there are three phases. Phase I is a simple review for Financial Completeness. Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible Mandatory Criteria requested for the bid, including evaluation of equivalent products per section 4.1.2, if applicable.</p> <p>However there are no mandatory criteria listed for any deck equipment. As such how will the deck equipment offered be assessed to ensure that it at minimum meets the listed criteria outlined within the individual sections of the annex A, SOW. If there are no assessment criteria then a less expensive product could be offered that does not meet the listed "must" criteria within the SOW. Currently as the Phased assessment is written there is nothing to stop this occurring.</p>	<p>The awarded Bidder will be under contract to satisfy each equipment requirement specified in the SOW. Canada also requires information on proposed equipment per Annex Q; proposed equipment must meet all mandatory requirements specified for each equipment SOW item.</p>
25	<p>(submitted outside the Conference) The SOW is rampant with the statement: "to the satisfaction of the Technical Authority". As "satisfaction" is subjective, in order to be able to bid a subjective re-requirement the Bidder requires Canada to either delete this clause or replace it with appropriately defined acceptance criteria.</p>	<p>The Contractor is to demonstrate to the Technical Authority, that the delivered work satisfies the requirements called up or outlined in the SOW and any applicable regulation.</p> <p>PSPC will oversee and negotiate any issues or disputes that could potentially arise. PSPC will also have an onsite technical representative present during the Vessel Work Period.</p>
26	<p>(submitted outside the Conference) If the Inspection Authority is also the Technical Authority, how will PSPC ensure that the inspection of the work will be objectively conducted? The Technical Authority has a vested interest to interpret the specification in its favour. In order to ensure that the inspection of the work is done objectively and fairly to the Contractor, the Inspection organization must reside outside of the Client Department. In order to ensure a fair and equitable inspection of the work, the Bidder requires that the Inspection Authority to be an objective 3rd party.</p>	<p>The Canadian Government's structure identifies the Canadian Coast Guard as the Technical Authority and the Inspection Authority for the project. The Canadian Coast Guard will identify different individuals to perform these roles but they will both be individuals employed by or engaged by the Canadian Coast Guard.</p> <p>PSPC will oversee and negotiate any issues or disputes that could potentially arise. PSPC will also have an onsite technical representative present during the Vessel Work Period.</p>

27	(submitted outside the Conference) GR 01 section 5 lists many Reference Standards without clear statements regarding their full applicability. The standards are indicated as mandatory but may only be partially applicable. In order to accurately bid the Work, the Bidder requires Canada to be more specific as to what precise sections of the references are applicable.	<p>The Acts and Regulations referenced in SOW Part A GR 01 sections 5.2 to 5.5 are mandatory. Any standards, rules, codes or guideline referenced in the regulations (section GR 01, 5.2 to 5.5) are to be considered as mandatory, as well (reference GR 01, 5.6.1.1). The requirements of ABS Rules and any standard referenced within the SOW must also be met as applicable. Standards, rules, codes, or guidelines referenced within a particular SOW item in Part B are also applicable. The Contractor must apply each standard and use professional knowledge and experience to ensure that the work, as carried out on the Terry Fox, will deliver a vessel that is compliant with all applicable standards.</p>
28	Does the Canadian Coast Guard actually know of five Diesel mechanical CPP machinery sets for ice breaking of the same size as the CCGS Terry Fox? I think that will be a difficult requirement to meet.	<p>From SOW item 12.1, the following sections are extracted:  3.3.1.13. The PM must be of proven performance in ice breaking applications in vessels of comparable arrangement, service, and power. The Contractor must provide five installation references wherein the proposed PM has been successfully applied on Icebreakers with Diesel-Geared CP Propeller PM.  3.3.1.14. Alternatively, in lieu of icebreaking application references, the Contractor must provide installation references wherein the proposed PM has been successfully applied in equally arduous service applications to icebreaking involving repeated, rapid, and extreme load changes from maximum load to zero load, and/or maximum load in the ahead direction to maximum load in the astern direction over pro-longed periods of time.</p> <p>Note that 3.3.1.14 offers alternatives. Annex P of the RFP shall be updated (to Rev 1) and published in a subsequent amendment, to clarify and include as a Mandatory Criteria requirement.</p>
29	When we attended the site visit, we were not allowed to look at any of the power distribution equipment; we could not see inside the switchboard because they were live. If this can be the only site visit, how can we know what is inside; the dimension, etc.?	Please provide a request detailing the specific information that you require.
30	Within section 17.1 for the 40 tonne deck crane, there is reference to a recognized Classification Society but it only notes one society within the section (which is ABS) which I believe is for the deck structure. Could you confirm if the crane can be certified to any approved classified society?	The crane must meet the Regulatory requirements set out in SOW Part A GR 01, section 5 including approval in compliance with the Cargo Fumigation Regulations, section 317, 1 (b). This approval can come from any of the Canadian Government approved Classification Societies. The Bidder must confirm with ABS that they will accept the crane and also meet the requirements of 'ABS Certification of Lifting Appliances (2020)', as applicable.

31	In some cases, specific equipment has been defined and, in other cases, the equipment replacement is not defined. For the equipment that has been defined, has that equipment been previously (and successfully) integrated on another ship, for instance?	Yes, defined equipment under section 18 is used on other vessels; Canada wishes to have commonality across the fleet.
32	At some convenient point, will Canada please confirm what the required status of all design work is before the engineering period is considered complete. It is one thing to say the main engines must be ordered but what is the status required for things like deck equipment, auxiliary equipment etc.	Not all equipment purchased is expected to be delivered during the Initial Work Period. Although most of the engineering work is expected to be completed by the Critical Design Review stage (re-fer to Annex V for PDR and CDR deliverables as well as article 7.33.1 in the RFP), Canada may authorize additional time for some engineering work during the Vessel Work Period. The shipyard, however, will also need engineering support during the Vessel Work Period for working drawings and such.
33	For the warranty, when we talk about sea trials, is it after those conducted in ice?	Warranty will begin after acceptance. The acceptance is assessed after the Sea Trials at the end of the Vessel Work Period (Ice trials are not feasible in October).

34	I'm a little worried about the timeline and the closing dates. We have not been able to do much yet due to missing drawings. I was wondering if this will be taken into consideration in regards to the closing dates.	The Canadian Coast Guard is conducting a verification on the content of the TDP. If there are any specific documents or drawings that you require sooner, please submit a specific request. At this point in time, we will not be extending the bid closing date.
AMENDMENT 009 - Questions 1 to 10 (ref 35-44)		
35	1. In regards to bid closing date, five months is unrealistic given the amount of engineering required upfront. Would PSPC be willing to extend the bid period to close in the month of September? 2. At the bidders meeting, it was asked if it was possible to have an extension to the tender deposit. Could a one month extension to the submission of bids be granted?	Canada will extend the bid closing date by one month (May 16, 2022). Bidders are encouraged, as needed, to work with key suppliers, engineering and/or project management firms to develop their bid. Canada has included an initial 8 month work period after contract award to carry out detailed design work and procure the long lead items.
36	Why is a phased bid compliance process (PBCB) being utilized for this project instead of using a pre-qualification process?	It is our policy to apply the PBCP for this type of procurement. It was determined that the prequalification process was not warranted and that it is more advantageous for Canada to keep the competitive process open.
37	The site visit time was inadequate for a requirement as complex as this. Also many key areas did not allow for access, ie electrical switchboards and consoles. Will Canada allow further ship access?	Canada is arranging for a second site visit from Jan 18 to 21, 2022, at Botwood, NL (refer to Amendment 8, item 1).
38	In regards to Request for Proposal (RFP) 2.7.1. Initial Work Period, eight months is inadequate for this work scope. Will Canada consider 14 months for this Definition Phase?	The Initial Work period has an 8 month minimum duration prior to the vessel arrival and the start of the Vessel Work Period. It could be as long as 9 months, subject to the duration of the solicitation process. Not all equipment purchased is expected to be delivered during the Initial Work Period. Although most of the engineering work is expected to be completed by the Critical Design Review stage (refer to Annex V for PDR and CDR deliverables as well as article 7.33.1 in the RFP), Canada may authorize additional time for some engineering work during the Vessel Work Period. The Final delivery of working drawings, for example, can occur after CDR and per the actual Vessel Work Period schedule. At this time, we will not increase the duration of the Initial Work Period.

39	Also in regards to section RFP 2.7.1. <b>Initial Work Period</b> , the RFP states Canada is procuring the one PS. Please can Canada clarify, who is procuring the PS, the shipyard or Canada? Will it be GSM?	<p>The Propulsion System (PS), per the SOW, is supplied by the Contractor and will not be supplied by Canada.</p> <p>In the RFP, Delete (in its entirety):</p> <p>2.7.1</p> <p>Insert (<b>the sentence in bold and italics has been modified</b>):</p> <p>2.7.1 The Initial Work Period of the Contract will start at Contract Award and will have a duration of at least eight (8) months. This period will end at the start of the Vessel Work Period, defined in the following section. <b><i>During this Initial Work Period, the Contractor is procuring one PS, as well as other long lead components (as identified in Annex "A" - Statement of Work) to be fitted onboard the CCGS Terry Fox during the Vessel Work Period.</i></b></p> <p>Additional preparation activities conducted during the Initial Work Period must include engineering work necessary to ensure the proper integration of new equipment on the vessel, as well as any preparation work required for the other VLE or refit maintenance described in Annex "A" – Statement of Work. Design Review Meetings must take place during this period.</p>
40	In regards to section 4.1.1.2 (i) <b>Phase I: Financial Bid</b> , since to the "satisfaction of Canada" is subjective and undefined, will Canada publish its Evaluation Plan? Will Canada employ a Fairness Monitor?	The evaluation plan is already published per section 4 in the RFP. The need for a fairness monitor was accessed and was determined to be not required.
41	In regards to section 4.1.2 (c ) <b>Evaluation Procedures for Proposed Equivalent Products</b> , "if requested during evaluation, the Bidder must submit a sample of any proposed equivalent product to the Contracting Authority for testing". Will this testing be performed by an independent 3rd party or will Canada determine the equivalency? Will Canada pay for this test?	Canada will make arrangements for testing to be performed internally or carried out by a third party, as required, and Canada will pay for this testing.
42	In regards to section 4.1.6 <b>Financial Evaluation</b> , will revisions to the Governmental Covid protocol, post bid closing, be paid by Canada through the normal 1379 process?	Any unforeseen issues that result from COVID-19 protocol-required changes (required by federal/provincial and or municipal revised regulations) after bid closing will be paid by Canada through PWGSC 1379, provided that the Contractor provides acceptable substantiation, which may be subject to an audit.
43	Mandatory Technical Requirement M5-B is a low bar to pass and is not representative of the complexity of a major project level requirement. A \$5M docking for a vessel the size of CCGS Terry Fox is not much. Will Canada consider changing this experience threshold to a more appropriate complexity level, say \$50M?	This requirement will not be modified.

44	In regards to RFP section 4.1.3 Technical Evaluation Who will perform the technical evaluation? How will the evaluation be conducted?	<p>The client department (CCG) is responsible for the technical evaluation of the bids. (Is PSPC responsible for overall process/provides an audit function?) For mandatory technical requirements listed in Annex P, each requirement (M#) includes two parts:</p> <ol style="list-style-type: none"> <li>1) The first part states the requirement; and</li> <li>2) The second part identifies what needs to be submitted in order to demonstrate compliance.</li> </ol> <p>The Phased Bid Compliance Process (PBCB) provides opportunities where Canada may seek clarification or request additional information from Bidders. For details regarding the PBCB, refer to article 4.1.1 of the RFP.</p> <p>Mandatory criteria are assessed on a simple pass/fail basis. Bids that fail to meet any of the mandatory criteria will be considered non-responsive. For added details refer to section 5.40 and 5.40.1 of the supply manual, as well as section 4.1.1.3 in the RFP.</p>
AMENDMENT 010 - Questions 1 to 14 (ref 45-58)		
45	<p>SOW Part B SOW item 12.1 – items 3.4.2.5 &amp; 3.4.2.6: Main Engine size is unclear and per requirement cannot be determined pre-contract award, can Canada please provide desired engine size in kW?</p> <p><b>Background Question 1:</b> In item 3.4.2.5b it is mentioned that 50% of the vessels full electrical load should be provided by the main engines via the shaft generators. The full electrical load is determined by the load analysis defined in Section 14.1.</p> <p>SOW 14.1 requires a load analysis engineering study, where the CCG is to be consulted regarding usage profiles as per 3.2.1.2e. This consultation is to happen post contract award, therefore it would be impossible to create the load analysis accurately pre-contract award.</p>	CCG to provide additional information in January 2022.
46	SOW Part B SOW item 12.1 – item 3.4.2.10, in order to determine whether this requirement can be met the target engine size needs to be known, can Canada specify the engine size?	CCG to provide additional information in January 2022.
47	SOW Part B SOW item 12.1 – item 3.4.2.15 what is considered low load operation, and what are considered extended periods of time?	Idling (no load), can occur for up to 8 hours.

48	SOW Part B SOW item 12.1 – item 3.4.3.2, what is meant by integration of the ME Controls with the Gearbox and Clutch controls?	The engine control systems must not operate independently of the clutch and gearbox controls. Engine control functions must be coordinated with clutch and gearbox controls, either directly or through overall propulsion control and/or power management control.
49	SOW Part B SOW item 12.1 – item 3.4.3.6, why is the electronic governor specified to be a Woodward 733, what unique attribute makes this system most suitable? For many diesel engines speed control and load sharing is handled by the local engine control system. Can Canada allow engine maker's engine control system to handle engine speed control and load sharing as an equivalent?	If the proposed engine manufacturer's engine control arrangement incorporates stand alone electronic speed and load management control hardware, then this hardware must be a Woodward 733 electronic control. If the proposed engine manufacturer's control arrangement includes engine speed and load management control as integral functions within the engine manufacturer's control hardware/software, and stand alone speed/load management, then the control hardware is not required; this will be acceptable. Either arrangement must be compatible with the Woodward PGG-EG engine mounted actuators, specified in section 3.4.3.7.
50	SOW Part B SOW item 12.1 – item 3.4.3.12, gauges are typically no longer used in a modern set up. Engine control systems have the process values available on a digital local display unit. Can operational parameters be provided digitally without the need of gauges?	No, the gauges are to be supplied as per the SOW.
51	SOW Part B SOW item 12.1 – item 3.4.5.18, this requirement mentions a PTI, however the need of a PTI is not mentioned in SOW 13. Is a PTI a requirement?	In subfolder 3, SOW PART B, and in file 'Part B Section 12 – Propulsion & Maneuvering Systems', under section 12.1 PROPULSION MACHINERY REPLACEMENT: Delete (in its entirety): 3.4.5.18 Insert: 3.4.5.18. The existing GB arrangement includes a single, auxiliary Power Take Off (PTO) output rated for driving a 1000 KW alternator. The new GB's must be arranged, instead, with an auxiliary drive capable of Power Take Off suitable for application with an electrical machine (alternator) of capacity determined in SOW item #13.1 Shaft Alternators & Power Stabilization. The gear manufacturer must provide PTO components up to and including the mating flange on the PTO shaft for coupling of the new shaft alternator.
52	SOW Part B SOW item 13.1 - Item 1.1.1.2f & 3.3.1.1, sizing of power bridge system is to be based on results of the load analysis defined in spec 14.1. This load analysis calculation requires consultation from CCG regarding usage profiles. This makes it impossible to determine size prior to contract. Can Canada please provide the needed rated output of the system?	CCG to provide additional information in January 2022.

53	SOW Part B SOW item 13.1 - Item 3.3.3.7, modern converters are nowadays of fuseless design, will Canada allow fuseless converters?	Yes, a fuseless design is acceptable, provided the performance and class requirements are met.
54	SOW Part B SOW item 13.1 - Item 3.3.3.12, will Canada allow 460 V 3AC infeed for the converters, as long as same redundancy is achieved?	Use of a switchboard UPS is preferred; the UPS system is redundant and has a larger battery bank. The distance shouldn't cause significant voltage drop. There are rules to comply with, and typically 24VDC UPS systems have the actual output voltage at 27.2V. A combination of two 24VDC sources: -the first from the proposed internal 24V supply (460V infeed), and -the second from the switchboard UPS, is acceptable. Note: The proposed solution with an internal UPS contains additional batteries in each unit; batteries of small size that have to be maintained, catalogued, and periodically replaced.
55	SOW Part B SOW item 13.1 - Item 3.3.7.1, can Canada please provide the technical data of the motors of the bubbler systems and the stern thruster? Are these motors suitable for converter operation? What is the purpose of the VFDs, just for starting or also for operation?	In subfolder 3, SOW PART B, and in file 'Part B Section 13 – Electrical Power Generation', under section 13.1 SHAFT ALTERNATOR REPLACEMENT AND FREQUENCY STABILIZATION: Delete (in its entirety): 3.3.7.1 Insert: 3.3.7.1 (NOT USED)
56	SOW Part B SOW item 13.1 - Item 3.3.3.5, is it allowed to provide a different voltage for the PTO converter and generator then what is shown in the single line?	A higher voltage will be acceptable, up to a maximum of 690 Volts.
57	As noted in 5.11.1.1. ABS Rules for Building and Classing Marine Vessels (Marine Vessel Rules) Updated January 1, 2020, apply as well as those standards referenced by ABS Rules. CSA requirements included below must apply where defined by ABS as a requirement to be applied.	As noted in 5.11.1.1. ABS Rules for Building and Classing Marine Vessels (Marine Vessel Rules) Updated January 1, 2020, apply as well as those standards referenced by ABS Rules. CSA requirements included below must apply where defined by ABS as a requirement to be applied.

58	<p>SOW Definition of the SSSI - The Industry Day briefed the SSSI as follows:</p> <p>The Contractor must arrange for supply and integration of both new and existing machinery, systems and equipment by a Single System Supplier and Integrator (SSSI).</p> <p>The SSSI may be the Contractor, a subcontractor, an engine supplier, or an engineering company.</p> <p>The SSSI is responsible for the integration of all the following specification items:</p> <ul style="list-style-type: none"> <li>• Propulsion Machinery</li> <li>• Main engines, clutches, gearboxes and all associated auxiliary machinery upgrades and all associated control and individual component safety and monitoring systems.</li> <li>• Shaft Alternators Replacement and Frequency Stabilization</li> <li>• Switchboard Upgrades and Power Management System</li> <li>• Motor Control Centers Upgrade</li> <li>• Propulsion Control Systems Replacement</li> <li>• Central Control Alarm &amp; Monitoring System Replacement</li> <li>• MCR Console Refurbishment</li> </ul> <p>The SSSI can be the Contractor, a subcontractor, an engine supplier, or an engineering company.</p> <p>The requested resume for evaluation is for the SSSI Project Manager (consequently, refer to RFP edits and SOW edits) who acts as the onsite representative overseeing and managing the integration activities.</p> <p><b><u>Refer to amendment 010 for detailed edits to the applicable RFP sections, including Annex P, and to the applicable SOW sections.</u></b></p>	<p>The SSSI is, as stated, responsible for:</p> <ul style="list-style-type: none"> <li>• Propulsion Machinery</li> <li>• Main engines, clutches, gearboxes and all associated auxiliary machinery upgrades and all associated control and individual component safety and monitoring systems.</li> <li>• Shaft Alternators Replacement and Frequency Stabilization</li> <li>• Switchboard Upgrades and Power Management System</li> <li>• Motor Control Centers Upgrade</li> <li>• Propulsion Control Systems Replacement</li> <li>• Central Control Alarm &amp; Monitoring System Replacement</li> <li>• MCR Console Refurbishment</li> </ul> <p>The SSSI can be the Contractor, a subcontractor, an engine supplier, or an engineering company.</p> <p>The requested resume for evaluation is for the SSSI Project Manager (consequently, refer to RFP edits and SOW edits) who acts as the onsite representative overseeing and managing the integration activities.</p> <p><b><u>Refer to amendment 010 for detailed edits to the applicable RFP sections, including Annex P, and to the applicable SOW sections.</u></b></p>
AMENDMENT 011 - ref 59 to 76		
59	<p>In regards to Request for Proposal (RFP) section 4.1.4 Joint Ventures Experience; why is Canada amending its own policy and restricting JV bidders to only 2 JV members? Will Canada consider following its own policy and remove the 2 JV party restrictions??</p>	<p>Canada does not have a policy that restricts us from limiting the number of members in a Joint Venture. After some consideration, the number of participants allowed will be increased from two to three.</p> <p>Refer to item 4 of this amendment for the subsequent RFP edits.</p>
60	<p>In regards to RFP section 6.7.2 (d) Preliminary Work Schedule, we request that FSR scheduling be removed. It will be impossible to schedule FSRs until post contract award since no contractual commitments will be made by bidders until after contract award. Suppliers will not guarantee FSR services until a contract is in place.</p>	<p>For the purposes of the preliminary schedule, this FSR detail can be omitted.</p> <p>Refer to item 5 of this amendment for the subsequent RFP edits.</p>

61	In regards to RFP section 6.7.2.2 Preliminary Work , can Canada explain why the level of detail such as manpower loading is being requested with the bid? The bidder is already certifying that it has adequate resources to meet the contractual delivery date. The level of detail required to provide loading across disciplines before detailed and production engineering is complete is not possible with any level of accuracy. The bidder requests that this requirement be removed.	In support of the Bidder certifying that it has the resources required to meet the contractual delivery date, Canada requires this information to ascertain how the Bidder plans to resource this Work given the level of effort required for this VLE.
62	In regards to RFP section 6.7.2.3 Preliminary Work, the same concern mentioned above for 6.7.2.2 holds true for this requirement, since the determination of direct and indirect labour will not be made until the production planning phase when full labour availability is known.	Refer to the response given in ref 61, above.
63	Mandatory Technical Requirement M-6 is unrealistic and excessive as a proposal mandatory. It will be impossible for a bidder to respond with any accuracy unless PDR has been completed and that will not occur until after Contract Award.	Refer to responses in Questions ref 61 and 62. Annex P has been updated per the response in ref 60, and is attached (ANNEXES_Prev2_Qrev0.zip).
64	RFP Part 2, 2.9 lists bid challenge and recourse mechanisms. However, it appears the neither the OPO (Office of the Procurement Ombudsman) nor the CITT has authority over this bid. Will Canada clarify what opportunities will be available to potential supplier?	The Canadian International Trade Tribunal (CITT) would be a viable option for this bid.
65	The SOW defines bi-weekly and bi-monthly so that these are essentially the same thing (every two weeks). Is this correct?	They are similar; bi-weekly means every 2 weeks, and bi-monthly means 2 times per month. Refer to SOW Part A, GR 01 (2.1.1.4 and 2.1.1.5).
66	Further to the above, many management deliverables are required to be provided bi-monthly; i.e. every two weeks. This will be a large administrative burden. Can Canada confirm that this is the schedule intended?	Yes. Canada needs the information on work progress to be provided bi-monthly i.e. to detect an early indication of any slippage in schedule.
67	RFP Annex H, Appendix 1, requires that Contractors provide life-cycle costing information such as maintenance labour rates 15 years in the future. This is an unrealistic requirement, which will be interpreted inconsistently by bidders. Will Canada please revisit this requirement to something more sensible.	Engine manufacturers publish the interval between major overhauls and costed parts lists for the different engines. Bidders are to use this information to complete the required forms. This is not a new approach.

68	The pricing data sheets (Annex H, appendix 1) assume that all items are stand-alone, which will not be the case. In the event that scope of work is reduced does Canada accept that line items cannot necessarily be used in isolation as the basis for price revisions?	Yes, in the event of a reduction of Work scope, Canada understands that line items cannot be used in isolation as the basis for price revisions.
69	Further to the above, as much of the work is required to be provided by a Single System Supplier Integrator (SSSI), an SSSI will normally quote for much of the work against the integration task, which will be split across many items. Will it be mandatory to split out these costs in an arbitrary way	Yes, the pricing must be weighted out separately in the pricing data sheet.
70	The pricing data sheets (annex H appendix 1) include a single line item for all project management activities and appear to have nowhere to quote any of the engineering work that will be required to accomplish the project. As these are likely to be significantly more costly than most of the other line items, will Canada explain how they are to be presented to ensure that Contractors are quoting realistically for these essential elements of the work?	Engineering costs should be incorporated into the individual SOW items, as applicable for each SOW Work item.
71	Amendment 005 Answer 2 makes it clear that Canada has developed an estimated cost for this modernization. Will Canada share this with bidders to allow them to make a determination of an appropriate level of effort to apply to their proposals? To explain this question further, we note that the ITB policy is required to be applied to all CCG procurements of \$100M or above. It appears highly likely that the work will exceed this threshold, and therefore the project is likely to be delayed, cancelled or descope if bids exceed this threshold.	No, this information will not be provided in a competitive solicitation
72	The engine fuel consumption evaluated through Annex H is specified to be at 100% power and 85% power. How is this to be interpreted? It is very unlikely that all engines proposed will have the same MCR as each other or as the existing engines.	The bidder is to use the published fuel consumption numbers for their proposed engine.

73	<p>For a Fixed Price contract the below expectations are unreasonable?</p> <p>"8.7.1.1 The Contractor must submit copies of all purchase orders for primary machinery and equipment required to complete the specified Work to the TA for review and comment.</p> <p>8.7.1.2. A list of Purchase Orders required for review will be made available by the TA.</p> <p>8.7.1.3. Provision of additional purchase orders must be accommodated when requested by the TA."</p> <p>Equipment will be specified during the engineering phase and cited in drawing BOMs. CCG approval during PDR &amp; CDR is the venue to discuss how the selected equipment meets the technical requirements of the RFP. Reviewing individual purchase orders in inefficient and unnecessary.</p>	<p>The intent is for the TA to do a quick review of the specifications' related information. The Contractor is responsible for meeting the requirements of the SOW. If a discrepancy is noted, at that time, the Contractor could save restocking costs. The review will not involve TA approval.</p>
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74	<p>In preparation for this project Canada has commissioned a number of studies related to work items; for example certain steel repairs, new deck hatch, galley layout, etc. The materials provided are very useful in developing costs for these items. However, we also note that in many of these cases there is still uncertainty in what the final scope of work will be, with provision for adjustment by 1379.</p> <p>Meanwhile, for the vast majority of work items, including the most complex items, no such studies are available.</p> <p>From Amendment 009, Answer 1 it is clear that Canada expects that bidders will “work with key suppliers, engineering and/or project management firms to develop their bid”. In order to provide realistic fixed firm prices, bidders and their engineering firms will need to develop at least the same level of detail as that in the existing studies. This must be done at their own cost, with limited access to the vessel, with no certainty as to the correctness of existing drawings and scans, and with no ability to account for even the level of uncertainty acknowledged by Canada under a majority of the existing studies.</p> <p>Obviously, an extremely high level of technical, cost and schedule risk is involved in this approach. Basing contractor selection purely on low bid and minimal mandatory requirements then transfers all this risk to Canada, as a successful bidder may not have the competency or resources to actually perform, and Canada is not currently requiring any substantive evidence of a bidder’s ability to do so.</p> <p>Will Canada therefore consider modifying its bid evaluation approach to allow bidders to provide supplementary information that demonstrates their due diligence in scoping the work and in assembling the project team needed to undertake it?</p>	<p>Refer to the response given in Amendment 7 questions 3 and 6.</p>
75	<p>The PDR/CDR deliverables tables in a number of areas include wording such as “to include, and not be limited to”.</p> <p>Will Canada explain how contractors are intended to respond to this type of open-ended requirement? Whose opinion of what is needed will prevail?</p>	<p>This is written as a performance specification. Bidders are responsible to determine the number of units required for each spec item. Bidders are to use their experience and are advised to include a risk factor if they have concerns that they missed a unit.</p>

76	The CDR deliverables for the Deck Crane include FAT test data approved by class, etc. This is required by Feb 2023 at the latest. Will Canada explain how the scheduling of this item is intended to be achieved?	Not all equipment purchased is expected to be delivered during the Initial Work Period. Although most of the engineering work is expected to be completed by the Critical Design Review stage (refer to Annex V for PDR and CDR deliverables as well as article 7.33.1 in the RFP), Canada may authorize additional time for some engineering work during the Vessel Work Period. The Final delivery of working drawings, for example, can occur after CDR and per the actual Vessel Work Period schedule. The procedure for the FAT may be approved by then but the testing will obviously not occur at that time.
AMENDMENT 012 - ref 77 to 80		
77	Canada's response to Amendment 5, Question 1 (Question ref 8) is evasive, however, confirms that the ITB Policy, as published by ISED, is not being followed, link refers: <a href="https://www.ic.gc.ca/eic/site/086.nsf/eng/home">https://www.ic.gc.ca/eic/site/086.nsf/eng/home</a> Therefore we ask the following supplemental questions: a. Please provide bidders the project pre-tax dollar value estimated by Canada? b. Where is scope and duration defined in the ITB Policy as a factor for determining eligibility? c. Like all refit projects, the vast majority of the work will be performed in Canada. Why would this project be treated differently than, say the Frigate DWPs, which require ITBs? d. Can Canada provide bidders with the assessment conducted by Canada and referred in their response to this question?	<p>a. Canada will not release the estimated project value.</p> <p>b. Scope and duration are examples of a number of factors that ISED (Innovation, Science and Economic Development Canada) considers when determining the application of the ITB (Industrial and Technological Benefits) policy.</p> <p>c. Canada has discretion when applying the ITB policy. As per Question ref 8 response, an assessment was conducted and it was determined that the ITB policy would not apply.</p> <p>d. No, this information will not be released.</p>
78	Supplemental to Canada's response to Amendment 5, Question 2 (Q ref 9), as follows: a. Is this project also considered a Major Crown Project? b. Will a Fairness Monitor be utilized?	<p>a. The Terry Fox VLE requirement is not considered a Major Crown Project.</p> <p>b. A Fairness Monitor will not be utilized for this requirement (refer to question ref 40 response).</p>

Canada's response to Amendment 5, Question 3 (Q ref 10) is factually incorrect and bidders ask the following supplemental questions:

a. Canada stated, "... ancillary contracts have been used in certain circumstances, however, they are not considered for competitive procurement processes under the NSS (National Shipbuilding Strategy)." The contracts resulting from NSS were as a result of a competitive processes and several ancillary contracts have been awarded to those shipyards. In addition ancillary or bridging contracts are common place in engineering or complex projects. Among several other reasons, they are used to mitigate the risk of proceeding with work before detailed design work or engineering is completed and accurate indicative costing can be established. What makes matters even higher risk in this tender is Canada requiring bidders to perform this detailed design work during the bid phase. Given the facts in the matter, will Canada reconsider its answer?

a. Ancillary contracts have been used in certain circumstances, however, they are not broadly used for competitive procurement processes. They will not be used for the Terry Fox VLE requirement.

<p>b. Also in its response to Amendment 5, Q3 (Q ref 10), Canada stated, "Industry Responses to the RFI posted in Oct 2020 confirmed the procurement approach, that being, to bundle the procurement of long lead items with the VLE work carried out at the shipyard." This is a misrepresentation of the RFI, the attached link refers:  <a href="https://buyandsell.gc.ca/cds/public/2020/10/05/9f352c50a72272bee4c997de501a706f/ABES.PROD.PW__MD.B042.E27915.EBSU000.PDF">https://buyandsell.gc.ca/cds/public/2020/10/05/9f352c50a72272bee4c997de501a706f/ABES.PROD.PW__MD.B042.E27915.EBSU000.PDF</a>.</p> <p>In the RFI Canada described an acceptable procurement strategy as follows: " The intent would be to issue one Contract for the procurement of most of the equipment, materials, engineering and conduct of the VLE. Canada intends to provide performance based specifications for the main engines and other long lead items. The contract would result from a competitive procurement among capable shipyards in Eastern Canada. Due to the nature and complexity of the requirement, Canada will entertain traditional prime/subcontractor or joint ventures in the project. Canada intends to use a point rated bid evaluation process to evaluate the bids. The criteria for the award of contract would be determined by the lowest overall point evaluation of the bids. Overall point figures would be determined by a combination of mandatory, technical and financial bid evaluations." It is clear that Canada has abandoned its RFI strategy whereby capability would be determined first, followed by rating the best proposal from prequalified yards. What we have here is a clear "bait and switch". Will Canada reconsider this high risk, high cost to industry procurement strategy for one that was advertised in its RFI?</p>	<p>b. The procurement strategy for the Terry Fox VLE will not be changed to include point rated criteria. At the time of RFI posting, the intention was to use a point rated evaluation process. Upon further review, Canada implemented an evaluation strategy using the selected mandatory criteria summarized in Annex P that simplifies the evaluation process and provides bidders with clearly defined criteria that must be met to be considered responsive. The mandatory criteria set out in Annex P, coupled with the SOW contractual requirements, achieves the original intent.</p>
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	<p>c. Canada states that it, "appreciates the level of effort required to prepare bid packages." By not considering Industry's request to change this strategy, bidders do not believe that Canada at all appreciates the cost to bid this procurement. Bidders ask the following supplemental questions:</p> <p>i. Will Canada compensate bidders for their costs should there be no successful bidder?</p> <p>ii. Bidders believe that Canada has insufficient funds to complete all work defined herein. Will Canada assure bidders it will not cancel this procurement due to insufficient funds?</p>	<p>c.i. Under no circumstances will Canada compensate bidders for their costs to prepare bids.</p> <p>c.ii. As per SACC 2003, article 11 (<a href="https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/25#rights-of-canada">https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/25#rights-of-canada</a>), Canada reserves the right to cancel the bid solicitation at any time.</p>
80	<p>In regards to Annex A Part B Section 12.2 Bubbler Compressor Replacement section 2.2.1.2 and 2.2.1.4, the SOW states the Procurement of the new ABCS has not been finalized. When will this be completed and when will the requisite documentation be made available to bidders?</p>	<p>Annex A Part B Section 12.2 Bubbler Compressor Replacement has been revised to include an allowance for the installation. Please refer to item 2 of this amendment for a new version of 12.2.</p>
AMENDMENT 013 - ref 81 to 132		
81	<p>SOW Part B 12.1 - Items 3.4.2.5 &amp; 3.4.2.6: Main Engine size is unclear and per requirement cannot be determined pre-contract award, can Canada please provide desired engine size in kW?</p> <p><b>Background Question 1:</b> In item 3.4.2.5b it is mentioned that 50% of the vessels full electrical load should be provided by the main engines via the shaft generators. The full electrical load is determined by the load analysis defined in Section 14.1.</p> <p>SOW 14.1 requires a load analysis engineering study, where the CCG is to be consulted regarding usage profiles as per 3.2.1.2e. This consultation is to happen post contract award, therefore it would be impossible to create the load analysis accurately pre-contract award.</p>	<p>For bidding purposes the engines are to be sized to provide rated propeller power plus an allowance of 1200 KW per side (port and starboard) to address the vessels electrical load, plus or minus 5% overall.</p> <p>Final engine selection must be based on the final electrical load analysis to be completed by the Contractor.</p>
82	<p>SOW Part B 12.1 - Item 3.4.2.10, in order to determine whether this requirement can be met the target engine size needs to be known, can Canada specify the engine size?</p>	<p>Refer to the response given in question ref #81.</p>

83	SOW Part B 13.1 - Item 1.1.1.2f & 3.3.1.1, sizing of power bridge system is to be based on results of the load analysis defined in spec 14.1. This load analysis calculation requires consultation from CCG regarding usage profiles. This makes it impossible to determine size prior to contract. Can Canada please provide the needed rated output of the system?	Refer to the response given in question ref #81.
84	SOW Part B 13.1 - Item 3.3.4.1a, can Canada explain the need for this requirement as the necessary pumps to support the engines and PTOs will not be running?	Could the author for clarification, to be more specific. It looks like the "AC bus" is being mis-interpreted, probably as the PTO generator output. In the SOW part B, section 13.1: "AC bus" refers to the respective buses of Main Switchboard (460V).
85	RFP 2.7.1 - Can Canada provide a schedule for when the vessel will be available to visit during Phase 1 (the Initial Work Period) of the contract, in support of surveys to complete the engineering works?	The vessel will be available to the greatest extent possible, in accordance with the vessels operational schedule. This schedule will be confirmed at a later date.
86	Need clarifications on Annex A Part B SOW item 15.12 (compressed air systems), 3.3.3. Air Pressure Reducing Stations: The written reducing stations values need to be clarified (there are discrepancies between the SOW and the drawings).	Refer to Item 2 of this Amendment for an update to Part B SOW item 15.12, 3.3.3.1.
87	Annex A Part B SOW Item 10.7 (High Pressure Local Application Water Mist Fire Fighting System (LAFFS)); are the Protected spaces at 3.2.1.2 still protected with Halon? Will this be an additional fire protection for these spaces? Will the automatic release of the LAFFS (3.2.1.13) affect the already fitted system (Halon)?	The affected spaces will continue to be protected by FM200. The LAFFS will be in addition to the existing FM200 systems. Automatic release of the LAFFS will not impact function of the FM200 systems.
88	Annex A Part B SOW Item 15.12, 4.3.1.4: During each compressor run trial, all monitored conditions must be recorded at 10- minute intervals. Data recorded must include: _____ . (missing the end of the sentence).	<ul style="list-style-type: none"> <li>•Ambient air temperature.</li> <li>•Air pressure and temperature going in and out of each stage of compression.</li> <li>•Oil pressure</li> </ul> Refer to Item 3 of this Amendment for an update to Part B SOW item 15.12, 4.3.1.4.
89	Part B SOW Item 16.3, 4.2.1.1 - Is it possible to indicate a weld length to be tested rather than a percentage?	No. The Contractor must determine the length using the information provided in the TDP (the TDP is available to those who have signed the non-disclosure agreement in Annex S - Non-Disclosure Agreement of Request for Proposal, RFP/Annexe S - Accord de non-divulgaration).

90	In regards to Annex A Part B Section 14.2B Emergency Switchboard - The bidder cannot be expected to quote the emergency switch board when it is not known if this needs to be replaced or not, as the engineering study deciding this has not been conducted yet. Would Canada consider changing the scope of this SOW to exclude the modification or replacement of the switchboard and for this to be handled by a 1379? This approach is what is being requested on SOW Item 17.12 Tow Pin Installation, where the purchase and installation will be done via 1379 after the completion of the feasibility study.	Canada will not be changing the scope for 14.2B. The Bidder must bid on refurbishing the existing switchboard. Any change in approach determined to be feasible post Contract award will be addressed at that time.  Refer to Item 4 of this Amendment for an update to Part B SOW item 17.12, 1.1.1.2 (the 'Note', at the end of the section, is removed; no PWGSC 1379 will be applied).
91	Part B SOW Item 15.3 - Are the interior surfaces of the 12 tanks available?	No. The Contractor must determine tank internal surface areas from the information provided in the TDP.
92	Part B SOW Item 15.3 - 4.2.1.1 - Is it possible to indicate a weld length to be tested rather than a percentage?	No. The Contractor must determine the length using the information provided in the TDP.
93	Part B SOW Item 15.10 - Are the interior surfaces of the 23 tanks available?	No. The Contractor must determine tank internal surface areas from the information provided in the TDP.
94	Part B SOW Item 15.10. 4.2.1.1 - Is it possible to indicate a weld length to be tested rather than a percentage?	No. The Contractor must determine the length using the information provided in the TDP.
95	Part B SOW Item 13.1, 3.3; Part 1 question - In the absence of the result of the load studies to be produced at 14.1 which will dictate the power of the shaft alternators, can we consider proposing the equivalent powers to what is currently on board and adjusting the power and price once the studies have been carried out?	Refer to the response given in question ref #81.
96	Part B SOW Item 13.1, 3.3; Part 2 question - Can this be applied to other items in the quote where the engineering must be completed before the equipment is selected in order to close/secure our bids?	The Contractor is requested to clarify specifically to which items this can apply.
97	Part B SOW Item 12.1.3, 13.1.2 - What is the mixture of coolant, what is the product used and how much to pump/dispose of?	The central cooling medium is fresh water treated with Liquidewt by Ashland Drew Marine. The volume of the fresh water system is 10 cubic meters.
98	Part B SOW Item 11.10 - Can the length of each valve to be replaced be specified? (space between flanges)	No, for bidding purposes, assume a space based on a valve standard, such as ASME B16.10. Detailed engineering shall be completed after award.

99	Part B SOW Item 11.19, 3.3.1.4 - Does Canada supply the 24 fittings in question? If so, can we see the details, if not can you specify what needs to be provided?	No, fittings will not be provided. Further information will not be provided.
100	Part B SOW Item 11.13 - Is it possible to have the surfaces of each of the elements to be painted in this item (Superstructures, decks, bulwarks, splices, rails, ladders, pipes and other structures on the exposed decks of the ship's superstructure, from the main deck to the top of the chimney and the railings of the wheelhouse to apply new coatings)?	No. The Contractor must determine surface areas from information provided in the TDP.
101	Part B SOW Item 12.1 - 3.3.1.3 (f) - The new PM package must not exceed the weight of the existing PM package. Can Canada provide a detailed breakdown for the weights of the existing PM package.	Main engines - 78,500 Kg each Gearboxes - 33,000 Kg each
102	Part B SOW Item 12.1 - 3.3.1.3 (f) - Further to the above, is there an overall weight limit/target for the modernization? It would not appear logical to constrain a single vital aspect while not controlling the overall issue.	Refer to SOW Part A GR 8.0.
103	SOW Part A GR 02 - What is intended by the following scope statement? 3.2.1.2. The Contractor must address all interference items as may be required to facilitate completion of the specified Work.	The Contractor must assess each Work item and determine any interference materials in the area surrounding the object being worked on. The Contractor must include (in their costs) the temporary removal of these items, the replacement of these items at the completion of the Work, and the verification of performance of the replaced items on completion of the Work.
104	SOW Part A GR 01, 5.7.2 - The vessel is required to meet the Canada Shipping act (GR1, section 5.3) including the Arctic Shipping Safety and Pollution Prevention Regulations. Section 5.7.2 lists IMO Instruments for guidance, but states those references in sections 5.1-5.5 are mandatory. Can Canada confirm that the Polar Code is mandatory.	The Arctic Shipping and Pollution Prevention Regulations (ASPPR) and Polar Code do not apply to government vessels when they are being used only in government non-commercial services, however new components supplied and installed as part of this contract should meet the requirements of the ASPPR and the Polar Code in general although a Polar Class is not prescribed.

105	<p>SOW PART A GR 01, 8.2 - In order to define the work sufficiently to support a FP (fixed price) proposal the as-fitted system drawings are needed. However the RFP indicates: "The Contractor must note that not all Guidance Drawings supplied are "As-Fitted" Drawings. The Contractor must physically verify all affected items and all dimensions necessary for the Work." Its unreasonable to expect each bidder to define the as-fitted systems in order to respond to the proposal. It is requested that Canada certify the supplied drawings to be an accurate definition of as-fitted systems.</p>	<p>The Contractor must establish the bid based on the information provided in the TDP. Any demonstrated deviation between the documentation provided and the final as-fitted condition, at the time of execution, will be addressed using PWGSC 1379.</p>
106	<p>SOW PART A GR 01, 8.4 - In order to provide a FP (fixed price) proposal in response to the RFP, equipment may need to be defined and costed during the proposal stage. Can Canada confirm that the review stage, as defined in section 8.4, will not result in the change of equipment.</p>	<p>No change will be required, provided the proposed equipment meets all requirements of the SOW,</p>
107	<p>SOW PART A GR 01, 8.3-8.4 - The RFP requires that working drawings be submitted to the TA for review and comment. This will cumulatively add significant leadtime and cost to the project. Additionally the opportunity for scope creep through TA comments on individual working drawings will mean that the final cost and schedule for the project is indeterminate. In order to create a fair and competitive RFP would Canada consider removing scope items of this nature that make it impossible for contractors to bid.</p>	<p>The TA will review the drawings to advise if any discrepancies are noted between the drawings and the specified requirements. Canada will ensure it applies the required resources so that this review will not unreasonably delay the Contractor's design effort. The Contractor can conduct parallel work while this review is taking place.</p>
108	<p>What is the required Polar Class for the ship? This will have a fundamental effect on the cost and weight of the gearbox and other items.</p>	<p>The Polar Class of the ship is not defined for the purposes of the SOW. The replacement of each component must be based on original equipment data, the vessels original ice classification and specifications provided within the SOW.</p>
109	<p>SOW Part A - The low temperature range for the vessel is set at -35C. Is this PST, MDLT or other?</p>	<p>The low temperature requirement for the vessel should be considered a Polar Service Temperature (PST) of -35C.</p>

110	Part B SOW item 13.1, 1.1.1.2.f - The requirement for the new power bridge system note: "Rated output of each power bridge system to be based on results of load study, defined in SOW item 14.1, Electrical System Analysis. In practical terms, due to space limitation, the power bridge system should have the largest capacity possible." This requirement is internally contradictory. How will Canada decide whether "as large as possible" has been achieved? What are requirements for access, etc?	Refer to the response given in question ref #81.
111	Part B SOW item 13.1, 3.3.2.1 - Further to the above, various types of shaft alternator are permissible. These types typically have different power densities (etc). Selection for low price will almost inevitably lead to lower performance. Does CCG accept that the selection at the proposal stage will be a binding limitation for performance?	The specified performance has to be met, no matter which type of alternator is proposed. Proposed alternators have to fit in the available space and have to meet all the criteria (a to j) defined in SOW Part B, SOW item 13.1, 3.3.2.2. Attention to be paid to: the capability to provide rated power in all speeds of propulsion combinator mode, and the capability to autonomously supply AC bus with required active (kW) and reactive power (kVARs).
112	Part B, SOW item 13.1, 3.3.2.2 - The selection of air or water cooling for alternators will also need to be made at bid stage. Does CCG accept that the selection at the proposal stage will be a binding limitation for performance?	Yes. It remains the Contractor's responsibility to confirm and ensure that whichever cooling medium is selected, it is viable in consideration of all other existing and new vessel structures and systems, as applicable. ie: the selection must work within the overall VLE scope and must not invoke any further work scope or costs subsequent to selection.
113	SOW Part A, 9.1.1.5 - The Contractor is required to ensure that selected equipment is "Currently in unlimited production..." How is this to be interpreted for custom items such as the gearbox, crane, etc?	Certification by the manufacturer stating that the equipment (or equipment parts for custom equipment) is in current production and that spare parts, technical support and service support will be available for at least 15 years is required. Note that this certification is specifically requested to be submitted at bid closure for propulsion machinery associated equipment (PME as indicated in RFP Annex P item M19b) and for auxiliary machinery equipment (as indicated in RFP Annex P item M19f).
114	Part B SOW item 11.11, section 3 - The application of SPS deck replacement described in SOW does not give any information on the thicknesses or grades of plate that will be (we assume) yard supply. Can this be clarified?	Refer to TDP update dated Dec 20, 2021 for additional reference material (the TDP and updates are available to those who have signed the non-disclosure agreement in Annex S - Non-Disclosure Agreement of Request for Proposal, RFP/Annexe S - Accord de non-divulguation).
115	Part B SOW item 11.11, 3.3.1.2 -In the specifications for SPS deck replacement it is noted that wastage of the existing deck can be up to 70% before any repair will be needed. Can this be confirmed, as it seems extreme.	Refer to TDP update dated Dec 20, 2021 for additional reference material Main deck UT assessment report is also included in TDP update (Refer to "ETS UT Survey Reports" provided in Section 11, under Documents folder).

116	Part B SOW item 12.1 - Inspection of the vessel and the drawings makes it clear that the design does not accommodate easy removal of the engine, gearbox, etc. Has Canada undertaken any feasibility studies into preferred options, or is this entirely the contractor's responsibility?	No. The Contractor is responsible for determining machinery removal routes and the associated requirements.
117	Specific example taken from Part B SOW item 15.2, 3.2.1.4 - In many areas of the SOW wording is used such as " The original pipe hanging, support and securing hardware must be retained and re-used to facilitate installation of the new piping." Can Canada explain how this will be applied when there will be extensive work in way; e.g. associated with engine removal? Will all such items need to be retained for re-installation?	Original pipe hangers, support and securing hardware must be used to the greatest extent possible. In instances where a piping system modification is specified, or where an adjoining structure is removed or replaced, new pipe hanging hardware may be installed. The Contractor must remain responsible for maintaining and/or reworking all new piping runs in a manner acceptable to the TA.
118	Example taken from Part B, SOW item 15.2 - Element of the specifications for the bilge and ballast system refurbishment appear internally contradictory, e.g. 3.4.2.1 and 3.4.2.2 first require retention of existing and then specify replacement. Will Canada clarify the intent?	The existing bilge and ballast system remote operated valve functionality is provided by a mimic and control panel in the MCR. This mimic and control panel is to be removed and not replaced. The functionality provided by the original mimic and control panel (to be removed and not replaced) is to be provided by the new CCAMS defined in SOW item 19.2, refer to section 3.15.27.
119	SOW Part A GR-02, 1.3 - The SOW requires that all equipment above decks must be protected by an enclosure. Can Canada clarify what types of equipment this requirement applies to?	All weather sensitive control equipment must be suitably protected from inclement weather and facilitate equipment operation in inclement weather conditions for the duration of the equipment's lifecycle.
120	Part B, SOW item 12.3, 4.2.27 - If propulsion engines can be offered with certain capabilities, these are required to be costed separately (e.g. variabe inlet valve timing). Can Canada clarify the intention and confirm whether the inclusion of options will be part of the evaluated price?	No, the cost of any options offered will not be included in evaluated price.

121	<p>SOW Part A, GR 01 - How is the below requirement measured?</p> <p>1.1.1.4 "The vessel's overall performance capabilities must be retained and not compromised, in any way, as a result of this VLE"</p> <p>The vessel performance requirements will need to be defined, baselined through vessel trials prior to the VLE in order to create a measurable requirement upon completion of the VLE. Will Canada provide a definition of the "overall performance capabilities" which would be verified by the shipyard prior to the VLE?</p>	<p>Prior to the arrival of the vessel at the start of the Vessel Work Period i.e. during the Initial Work Period, open water sea trials are specified to be completed, for this purpose, refer to GR 7.0 (SOW Part A).</p> <p>Original ice performance data is documented in the reference material offered in TDP update dated Dec 20, 2021.</p>
122	<p>SOW Part A, GR 01, 1.2.1.3 - The below requirement is unreasonable. The TSR can only be responsible for those working on the CCGS Terry Fox contract whom are employed by, or working on the premises of the prime contractor.</p> <p>"Protection of all personnel associated with the Contract from abuse, or injury of any sort"</p> <p>The successful bidder should be expected to meet applicable Occupational Health &amp; Safety requirements and blanket RFP requirements such as this should be removed or modified.</p>	<p>The intent of this clause is to be applied to personnel working on the CCGS Terry Fox contract whom are employed by, or working on the premises of the prime contractor.</p>
123	<p>SOW Part A, GR 01 - What is the purpose of these drawings?</p> <p>"2.1.1.21. "Guidance Drawings"</p> <p>Guidance drawings are provided strictly for guidance purposes only. The Contractor must physically verify all Contract requirements and must then develop working drawings for approval."</p> <p>Is CCG expecting to receive guidance drawings?</p>	<p>Guidance Drawings are provided by the CCG as a baseline reference, and to be developed as Working Drawings after the technical solution is determined, per the SOW. CCG does not expect to receive Guidance Drawings from the Contractor.</p>
124	<p>SOW Part A, GR 01, 5.12.2.1 - Are SAE standards acceptable for plated fasteners?</p> <p>"ISO 2081- Metallic Coatings- Electroplated Coatings of Zinc on Iron or Steel"</p>	<p>Yes.</p>

125	<p>SOW Part A, GR 01, 7.2.1.6 - This is provincial jurisdiction, what role does the TA play in this area? Is there any other expectation aside from simply receiving an internal safety document.</p> <p>"7.2.1.6. The Contractor must provide, 5 days before the Kickoff Meeting lead paint Work procedures in place that comply with provincial regulations and have been approved by the Contractor's Workplace Occupational Health and Safety Committee."</p>	<p>Refer to SOW Part A GR 01 section 6.1.1.4 and 6.1.1.5. The Contractor's HSSE must meet or exceed the FSSS and must be fully accessible to the TA.</p> <p>Employees of Canada must work under requirements of the Canada Labour Code. Employees of the Canadian Coast Guard must work under the FSSM. The TA must have access to the Contractor's HSSE system and all related documentation in order to ensure that Government employees are adequately protected by the Contractor's HSSE system.</p>
126	<p>SOW Part A, 7.2.1.8 - Why is the TA interfering with the operation and management of Occupational Health and Safety in the work place when this is provincial jurisdiction?</p> <p>"7.2.1.8. The Contractor must maintain records that demonstrate that his Quality Assurance department has the capacity to monitor on-site Work progress, is capable of performing air quality monitoring on an ongoing basis as required by the Occupational Health and Safety Regulations and is able to assess the affected areas post abatement process. Current training records must be maintained and must be made available for inspections. "</p>	<p>Refer to the response to question ref #125.</p>
127	<p>SOW Part A, 8.4.1.6 - The use of plotted drawings ended sometime in the 1990's. Drawing approvals should be paperless and electronic using the shipyard selected PDM tool. Will Canada accept an electronic workflow and endeavor to conduct its working/shop drawing review paperless through an electronic, configuration controlled workflow that would provide metrics on drawing approval performance and efficiency?</p> <p>"8.4.1.6. Drawings submitted for review, unless otherwise specified, must be in the form of plotted originals. Manufacturer's printed data sheets for standard items are acceptable providing pertinent characteristics are identified and relate to specified items"</p>	<p>The requirement will not change.</p>

128	<p>Part B, SOW item 12.1, 3.3.1.13/3.3.1.14 - Amendment 7 Answer 15 (question ref 28) - Canada has noted that section 3.3.1.14 allows for alternatives. Can Canada provide examples of alternative arduous services they deem applicable to icebreaking?</p>	<p>Examples of alternative arduous services deemed comparable to icebreaking include offshore anchor handling and supply vessels, ferries, and dredgers. These arduous services are also noted in RFP Annex P (rev 2), item M19h; required as part of the bid submission mandatory criteria.</p>
129	<p>Part B SOW item 16.2 - Installation of a second domestic water heater is required. Is this for capacity or redundancy? As little guidance is offered on installation or performance requirements it is not clear how this is to be plumbed into the overall system.</p>	<p>This is intended for, both, capacity and redundancy. It is to be plumbed in parallel with the existing hot water heater. It is to be of similar capacity as the existing HW heater.</p> <p>Further detail for the new hot water heater has been provided in TDP update dated Dec 20, 2021.</p>
130	<p>Part B SOW item 16.3, 3.4.2.13 - The Domestic Water Tanks requirements note that "The water supply required for this SOW item must not be added to the vessel's domestic water daily use. If the Contractor uses the same domestic water supply and same meter as that used for supply for general vessel's usage, the volume required for this SOW item must be deducted from the vessel's domestic water consumption meter when calculating overall usage for services billing." Can Canada clarify the intent of this requirement?</p>	<p>Cost of water to be used for flushing, disinfecting and filling of the domestic water tanks is to be included in bid cost for this SOW item and not included in the daily consumption costs accounted for in SOW Part A GR 10, section 3.3.</p>
131	<p>Part B section 19 - Will the Canadian Coast Guard (via PWGSC) procure navigation equipment and hardware directly, or will this equipment be offered through the winning shipyard? We are happy to quote either way.</p> <p>Is there a preferred refit location? Sperry Canada has offices in St John's and Halifax, we can serve any CCG Location in Eastern Canada. Service partners Alliance Nav have offices in Quebec and Ontario.</p>	<p>Each SOW item under section 19 (or under any other section) specifies whether the equipment is GSM, i.e. navigation equipment and hardware will be supplied by the Coast Guard.</p> <p>The refit location is not yet known.</p>

132	<p>Part B, SOW item 17.1 FORTY (40) TONNE DECK CRANE REPLACEMENT</p> <p>3.4.1.6. The crane being offered must be capable of performing the following:</p> <p>a) Recovering a crew barge from either the port or starboard side of the vessel.</p> <p>b) Recovering a fifteen (15) tonne environmental response barge from the port side of the vessel.</p> <p>c) Capable of performing a man lift whilst the vessel is at sea or in harbour.</p> <p>Could it please be clearly stated what the maximum personnel lifting requirement be for the 40 tonne deck crane (i.e. clarify item c, above).</p>	<p>The maximum personnel lifting requirement must accommodate 1500 lbs at the crane maximum boom radius.</p> <p>Refer to Item 5 of this Amendment for an update to Part B SOW item 17.1, 3.4.1.6.</p>																														
AMENDMENT 014 - ref 133 to 140																																
133	<p>Need clarifications on Annex A Part B SOW item 16.10 (Incinerator replacement), 3.3.3. Sludge / Settling Tanks: The required number of sludge tank is one or two (as these tanks come as one unit only)?</p>	<p>Refer to Item 2 of this Amendment for an update to Part B SOW item 16.10, 3.3.3.1.</p>																														
134	<p>The milestone payment schedule (RFP Annex H, appendix 2) is very back end loaded and focuses entirely on the propulsion system, while other high value items (e.g. crane) are ignored. This poses considerable cash flow risk to bidders. Will Canada allow bidders to propose an alternative set of milestones and associated schedule?</p>	<p>Canada is not prepared to alter the milestones, at this time. There are milestones associated with equipment other than the propulsion systems (listed below), where Canada pays the Contractor upon this equipment receipt and inspection; this equipment includes the 40 tonne crane.</p> <table><tr><td>15</td><td>Part B Section 11.29 - Galley Equipment Package</td></tr><tr><td>16</td><td>Part B Section 13.1 - Shaft alternators &amp; frequency stabilization equipment</td></tr><tr><td>17</td><td>Part B Section 14.2a - Main switchboard upgrade equipment</td></tr><tr><td>18</td><td>Part B Section 14.2b - Emergency switchboard upgrade equipment</td></tr><tr><td>19</td><td>Part B Section 14.3 - Motor control centers upgrade equipment</td></tr><tr><td>20</td><td>Part B Section 16.4 - Sewage treatment plant equipment</td></tr><tr><td>21</td><td>Part B Section 16.10 - Incinerator replacement &amp; upgrade equipment</td></tr><tr><td>22</td><td>Part B Section 17.1 - 40 tonne crane equipment</td></tr><tr><td>23</td><td>Part B Section 17.2 - Deck machinery mechanical equipment</td></tr><tr><td>24</td><td>Part B Section 17.3 - Deck machinery electrical equipment</td></tr><tr><td>25</td><td>Part B Section 17.5 - Mooring winch equipment</td></tr><tr><td>26</td><td>Part B Section 17.6 - Stores crane equipment</td></tr><tr><td>27</td><td>Part B Section 18.1 - Internal communication system upgrade equipment</td></tr><tr><td>28</td><td>Part B Section 19.1 - Propulsion control system upgrade equipment</td></tr><tr><td>29</td><td>Part B Section 19.2 - Alarm &amp; monitoring system replacement equipment</td></tr></table>	15	Part B Section 11.29 - Galley Equipment Package	16	Part B Section 13.1 - Shaft alternators & frequency stabilization equipment	17	Part B Section 14.2a - Main switchboard upgrade equipment	18	Part B Section 14.2b - Emergency switchboard upgrade equipment	19	Part B Section 14.3 - Motor control centers upgrade equipment	20	Part B Section 16.4 - Sewage treatment plant equipment	21	Part B Section 16.10 - Incinerator replacement & upgrade equipment	22	Part B Section 17.1 - 40 tonne crane equipment	23	Part B Section 17.2 - Deck machinery mechanical equipment	24	Part B Section 17.3 - Deck machinery electrical equipment	25	Part B Section 17.5 - Mooring winch equipment	26	Part B Section 17.6 - Stores crane equipment	27	Part B Section 18.1 - Internal communication system upgrade equipment	28	Part B Section 19.1 - Propulsion control system upgrade equipment	29	Part B Section 19.2 - Alarm & monitoring system replacement equipment
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135	Following on from Q&A reference #64. The RFP is designated as part of NSS. NSS is covered by the national security exemption. Canada has previously used this exemption to block applications to the CITT. Will Canada confirm that they will not invoke the exemption for this procurement?	Canada will not be invoking an NSE (National Security Exception, <i>Exception relative à la sécurité nationale</i> ) for this requirement.
136	Part B SOW item 16.1, 2.6.1.1 and 3.5.5 - For the renewed freshwater system, the Contractor is required to install five (5) GSM backflow preventers, however it is noted that only four (4) will be provided. Can Canada clarify which is correct? Also, as compatibility issues may arise why are these relatively minor items being provided as GSM?	All required backflow preventers must be supplied by the Contractor. For amendments to the SOW, refer to Item 3 of this amendment for an update to Part B, SOW item 16.1.
137	Will Canada be considering a BWTS for the Terry Fox ?	No, we won't be installing a new ballast water treatment unit.
138	RFP, section 7.2, Standard Clauses and Conditions : Q : On the buyandsell website, there are many standard clauses and conditions that are not applicable for this contract, example: price for milk and butter. Also, many of them are "obsolete" and/or not updated. So, to have a clear view of all applicable clauses and conditions for this major project, we would ask to Canada to produce one complete Contract including all clauses and conditions extracted from buyandsell website and others clauses and all conditions from all specific sections produced for this project.	<p>For section 7.2 (and for all of section 7), the only clauses that apply from the SACC site, are those that are either referenced or written out in full (in section 7). In section 7.2, for example, the referenced clauses (links) include, only:</p> <p><a href="#">-2030 (2020-05-28), General Conditions - Higher Complexity - Goods (section 22 is amended as noted in 7.2.1);</a>  <a href="#">(link: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2030/19);</a>  <a href="#">-1029 (2018-12-06) Ship Repairs; and</a>  <a href="#">(link: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/1029/5)</a>  <a href="#">-4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information</a>  <a href="#">(link: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4006/3)</a></p>

139	<p><b>Lowest Price vs Life Cycle Cost:</b> The current format of a lowest price bid evaluation will encourage bidders to source the cheapest equipment available. While some consideration has been given to vessel life cycle costs with respect to spare parts, fluid and fuel consumption, there is no criteria addressing the reputation of OEM's (original equipment manufacturer) or equipment within an OEM's portfolio of products.</p> <p>a) Will Canada consider a weighted criterion for major equipment items based on OEM's record of performance?</p> <p>b) Would Canada consider specifying OEMs for major equipment?</p>	<p>a) Refer to question ref 79b response. Furthermore, in RFP Annex P, Mandatory Criteria has been considered and included for (i) manufacturers of major equipment, as well as for (ii) major equipment identified in all of M19 (a to h) as Propulsion Machinery Equipment (PME defined in M19b) and as Auxiliary Machinery (AM defined in 19g). PME Equipment includes: -Propulsion Machinery Engines (PME in Part B SOW item 12.1); -Propulsion Machinery Clutches (PME in Part B SOW item 12.1); -Propulsion Machinery Shaft Alternators (Part B SOW item 13.1); -Switchboard equipment (Part B SOW item 14.2); -Motor Control Centres (Part B SOW item 14.3); -Propulsion Machinery Controls System Upgrade (Part B SOW item 19.1), and -Alarm and Monitoring System (Part B SOW item 19.2). AM Equipment includes: -associated AM components (Part B SOW item 12.1) including PME related AM pumps, compressors, prefabricated tanks, receivers, filters, valves, regulators, relief valves, and general instrumentation and the Start and aux air compressors replacement (Part B SOW item 15.11).</p> <p>b) Canada has already established a 'no-substitute' list of components without allowing for equivalent products, on an exceptional basis as itemized in Annex U of the RFP. No further additions to the list can be made at this time.</p>
140	<p><b>Capacity:</b> No consideration or weighting of a contractor's capacity to execute the work has been factored into this solicitation. Should bidders not have to provide a reasonable level of assurance that they have the facilities, manpower, etc. to execute the work within the timeframe specified by Canada? Specifically, in reference to backlogs at bidders' respective facilities? Would Canada consider a weighted bid evaluation whereby bidders provide a work schedule that clearly demonstrates a facility's capacity to execute the project within the time frame specified by Canada?</p>	<p>Refer to question ref 79b response. Furthermore, to demonstrate a facility's capacity to execute the project within the time frame specified, Canada has requested, in Annex P, mandatory requirement M6, where the Bidder must provide a Preliminary Work Schedule that must include the workforce deployment plan, or labour loading, for the following disciplines: -Steelwork; -Piping; -Mechanical; -Electronics; -Controls/Instrumentation. The Bidder must indicate which intended labour resources will satisfy the proposed labour loading for each discipline i.e. are the resources supplied in-house, or from subcontractor(s) and suppliers. Indicate subcontractor names and specify any suppliers. Also, M7 requests anticipated Sub-contractor engagement, including a list of all subcontractors and additional details. <b>Refer to M6 and M7 of Annex P (amended to rev 2 in Amendment 011) to see the entire content.</b></p>
AMENDMENT 015 - ref 141 to 161		

141	<p>Part B, SOW item 16.19 - Design criteria for the new wheelhouse air handling unit provide different temperatures than those required for most other systems; furthermore the capacities of the unit are specified. How are the temperatures to be interpreted, and what type of acceptance criteria are to be followed?</p>	<p>Refer to Item 5 of this Amendment for an update to Part B SOW item 16.19, 3.6.2.1.</p>
142	<p>Engineering schedule</p> <p>Given the anticipated scope and complexity of the project, we anticipate a significant amount of custom detailed drawings and manufacturing information will have to be generated. We do not feel the eight-month period from contract award to vessel arrival is sufficient to account for the engineering effort required. Furthermore, as many scopes of work items are conceptual and largely undefined, the amount of custom drawings and manufacturer information required is a variable difficult to account for and creates significant risk for both the cost and schedule of the engineering work.</p> <p>Will Canada extend the design/procurement period from eight months to, at minimum, eighteen months?</p>	<p>Canada will extend the Initial Work Period. Refer to Items 2, 3 and 4 of this Amendment for an update to the RFP.</p>

143	<p>Procurement of Long Lead Items</p> <p>As mentioned above, we feel the design/procurement period of eight months from contract award to vessel arrival is insufficient. This is further exacerbated by the fact that design and acceptance of long lead items needs to take place before a purchase order is issued to OEM's. It is highly unlikely the prime contractor will be able to develop a detail design for major equipment, have said design accepted by Canada, order machinery and have it manufactured and install it in the vessel during the proposed contract period. Major items such as main engines may have to be built, a process which could take a year or more, especially given the pressure supply chain issues caused by COVID-19.</p> <p>a) What happens if a design is submitted and not accepted by Canada and delivery of major equipment is delayed either as a result of an extended design period or, OEM production delays? Will the contractor be held responsible for these delays? How will the contractor account for additional engineering costs as a result of re-work to a design not accepted by Canada?</p> <p>b) If Canada will not amend the solicitation to a two phased contract approach, we recommend at a minimum, a period of at least eight months design and acceptance followed by an eight to ten-month procurement period before the vessel arrives.</p>	<p>a) The Contractor is obligated to provide equipment that satisfies the requirements in the SOW. The Procedure for Unscheduled Work process (RFP Annex F using form PWGSC 1379), will be utilized to negotiate reengineering Work that can be attributed to Canada with acceptable substantiation. Delays will be addressed per 2030 11 Excusable Delay.</p> <p>b) Refer to the response to question ref 142 response.</p>
144	<p>Part B, SOW item 15.1, 3.3.1.8 states that "The Contractor must replace cooler discharge valves with new valves of same arrangement and style as original." Looking at drawing 71-01-02, revision 3 states that the valves on the return lines from the coolers were deleted. Can you validate?</p>	<p>These valves have not been deleted and remain in place. They must be replaced with new valves, per the SOW.</p>
145	<p>For the same SOW item (15.1), it is mentioned at 3.1.1.2 that sections to be replaced have been indicated on drawing 71-01-02. These sections are not identified on the specified drawing.</p>	<p>These sections have been identified on the specified drawing in an update to the TDP (TDP update 22.01.06; section 15, Drawings).</p>

146	SOW Part B SOW item 17.1 - The new deck crane appears to represent a capability increase from the existing crane and a greater capability than other cranes in service with the CCG fleet. As this will be an expensive item with considerable ship impacts, will CCG consider installing the same crane recently selected form other CCG vessels which will provide lower cost and greater fleet commonality?	The Bidders must select a crane that meets the requirements of the SOW.
147	SOW Part B SOW item 17.1, 3.6.1.5 - The documentation requirements for the deck crane specify "Three (3) complete sets in English and three (3) complete set in French (if available) of the instruction, operation, maintenance, parts lists, and spare parts catalogs/manuals.." Will Canada confirm that French language documentation is not required?	French manuals are required. Refer to Item 6 of this Amendment for an update to Part B SOW item 17.1, 3.6.1.5.
148	SOW Part B SOW item 17.1, 5.3 (5.3.1.1) - The spares requirements for the deck crane include "a) Sufficient spares for two (2) preventative maintenance routines and any other critical spares which are recommended by the OEM to be carried on board. b) Spare parts suitable for two (2) years of maintenance routines and any other critical spares which should be stocked." Are these to be taken as cumulative, or is the more extensive of the two alternatives required?	a) and b) are cumulative requirements.
149	SOW Part B SOW item 17.2, 3.2.1.7 - The Contractor is required to assess whether the tow winch tow wire is to be removed as part of the proposal. How is the Contractor supposed to make this determination without an opportunity for inspection? Will CCG unreel some or all of this as part of a second ship visit? Will Canada change this requirement to allow for removal, stowage and reinstallation to be considered as a 1379 item?	The Contractor must determine if the specified maintenance of the winch can be completed with the wire in place on the drum. If it cannot (and the wire must be removed to allow completion of the specified maintenance of the winch), then the Contractor must address the requirements of section 3.2.1 of SOW item 17.2 accordingly. The Contractor is not required to inspect the wire.
150	SOW Part B SOW item 17.2, 3.4.2 (3.4.2.1) - The Contractor is required to conduct a 200 tonne bollard pull test of the refurbished winch; however the vessel performance data (SOW Part B Section 13) suggests that it cannot apply 200 tonnes. Will Canada clarify this requirement?	The Contractor must conduct a bollard test to demonstrate the maximum capability of the winch, without exceeding 200 tonnes

151	SOW Part B SOW item 17.2, 3.5 - The scope of work required for refurbishment of the anchor handling winch may exceed the replacement cost of the winch. Can the Contractor propose this as an alternative?	No, the Contractor cannot propose an alternative.
152	Part B, SOW item 15.2, 5.5.1.2 - "The Contractor must provide proof of Class inspection and acceptance of all components and function of the new bilge and ballast systems." This SOW cannot be fulfilled without an exception from the Rules being granted because the existing ballast system does not include a ballast water treatment unit and there is no SOW for adding it.	Class acceptance of the waiving of the requirement for a BWTS (Ballast Water Treatment System) will be arranged by CCG. The Contractor must provide proof of Class inspection and acceptance of all other aspects of the bilge and ballast systems.
153	SOW Part B, SOW item 17.5, 17.7, etc - , The forward deck (in particular) mooring arrangements are to be extensively reworked, but no sketch or other information is offered to ensure that Bidder's proposals will meet CCG operational requirements. Can bidders therefore assume that any arrangement assumed in their proposal will be acceptable? If not, can bidders assume that any rework required to obtain CCG approval will be work arising?	Reference document 17.5-1 is available in TDP Update 21.12.20; this resource ensures that Bidders' proposals will meet CCG operational requirements.
154	SOW Part B, SOW item 19.5 - The MCR consoles are to be refurbished rather than new consoles being provided, despite the fact that most items will be entirely new. This approach will be difficult to implement and will lead to considerable performance and schedule risk as it precludes any ability to test most aspects by FAT rather than in-situ. It also raises many human engineering challenges, especially as layouts must be approved by CCG without any objective criteria being established for this. Will Canada consider changing this requirement to allow for provision of new consoles?	Yes. Any new console must align with all of the requirements of the SOW, as well as retention of all existing console hardware and functionality not dealt with in SOW.
155	SOW Part B, SOW item 12.1, 3.4.2 - The new PM system is required to include a new combinator control option. Is this to be available in both open water and ice modes? If so, what limiting engine speeds will be accepted for ice operation?	Combinator mode availability is defined in SOW Part A section GR 12.

156	SOW Part B, SOW item 12.9 - The Contractor is to supply and install a complete set of new propeller blades to the original design. This will preclude any improvements in efficiency and noise reduction available from utilizing state-of-the-art design, and will constrain the design of other aspects of the propulsion machinery. As the "lowest compliant bid" approach will prevent offering better alternatives, will Canada consider undertaking a study of alternatives during the Initial Work Period?	No, Canada will not undertake such a study.
157	Question ref #72 Amendment 11 - Follow on from Question ref #72: To clarify our question, please note that similar engines do not generally have identical power ratings, and bidders would normally be expected to offer what they consider to be the best engineering solution. However, the bid evaluation approach will penalize good practice. The existing MEs are rated at 4275kW each. Assume that a candidate replacement is available at 4200kW, and another supplier's engine at 4500kW. Both have similar specific fuel consumption. However, the 4500kW engine will appear to have roughly 7% worse fuel economy using the evaluation approach. In reality, it may actually have better performance, as running at 100% load is worse for fuel economy and for maintenance. We therefore request that Canada revisit the requirement to reflect a specified delivered power requirement that avoids this problem.	The Contractor must select the engine it wishes to include in it's proposal and use the specific fuel consumption for that engine.
158	Question ref #76 Amendment 11 - Follow on from question ref #76. We thank Canada for the clarification, but note that the requirement has not actually been changed. Will Canada please amend the requirements to ensure that there is no dispute as to intent following contract award.	Yes. Refer to Item 4 of this Amendment for an update to the RFP.
159	SOW Part B SOW item 17.1, 3.4.1.1 - The new deck crane is to " .as a minimum, be in current production and in marine service and be well supported in Canada.. " Can Canada confirm which characteristics are to be covered by this requirement, as the requirements call for a customized unit rather than a standard production model.	The bidder must demonstrate that spare parts and service will be available for the specified period. A verifiable, class approved reference for a similar crane on a named vessel will satisfy this requirement.

160	Question ref #67 Amendment 11 - Follow on from Q&A reference #67. To clarify our concern, we fully understand that OEMs will provide current year parts costs. However, the RFP requires that we quote parts and labour prices for 15 years into the future, which is unrealistic. We therefore repeat our request that this requirement be revisited.	All engine maintenance and operating costs (for both labour and materials), should be based on the selected engine maker's data, and priced in today's dollars.
161	Performance of the vessel: No engineering or modelling has been done to assess the vessel operational characteristics with the new equipment installed. As the contractor is responsible for procuring and installing major equipment, we feel an untenable amount of risk is placed on the prime contractor with respect to performance and acceptance of the vessel. The preferred course of action would be to model the vessel with all new equipment and systems, in order to accurately predict the operational characteristics of the vessel before any work is done and provide certainty to Canada that the vessel will operate as desired. This modeling should be done to compare different equipment options before equipment is selected. Who will be responsible if the operational characteristic of the vessel is deemed unsatisfactory during the acceptance phase?	<p>The Contractor is obligated to provide equipment that satisfies the requirements in the SOW. The Procedure for Unscheduled Work process (RFP Annex F using form PWGSC 1379), will be utilized to negotiate reengineering Work that can be attributed to Canada with acceptable substantiation.</p> <p>The Contractor will be responsible for implementing each item in the SOW and ensuring the performance of any equipment installed as well as the integration of that equipment with any other new equipment or retained equipment. The operational characteristics are not anticipated to change.</p>
AMENDMENT 016 - ref 162 to 177		
162	SOW Part B SOW item 17.1, 1.1.1.2 - The RFP notes that if the new crane requires additional deck support structure, that this will be dealt with as work arising. Will the work arising also cover additional engineering required for the redesign?	Completion of the initial Finite element analysis (FEA), specified in 3.1.2 must be included in the bid cost. Engineering required for the definition of additional structure and steel work will be addressed using PWGSC 1379 process.
163	SOW Part B SOW item 17.1 - The new deck crane is likely to require new stowed support arrangements. Are these at the discretion of the Contractor to define? If not, what location and other constraints are applicable?	The Contractor must assess and modify the existing crane boom storage crutch to suit the new crane. The Contractor must also assess any potential interference between the stowed crane and towing operations and adjust the crane stowage arrangement to avoid any interferences.

164	Part B, SOW item 12.1, 3.5.10.1 - "The Contractor must assess the existing ME exhaust uptake system against the needs of the new PM and define all modifications to the exhaust uptake system required to meet the needs of the new PM." Please advise of noise requirements for replacement engines and engine exhaust systems (dB).	The noise level requirements of the exhaust system must meet the Regulations and ABS Rules and codes stipulated in the SOW, GR 01 (Part A), section 5.0. This includes the noise limits in the engine room and the accommodation space. As a minimum, the levels must not exceed the previously measured noise levels, per survey 287478 CCGS Terry Fox Noise Monitoring Report, NL, March 5 2021. The machinery space maximum noise level limit is 110 dB.
165	Followup on QA ref #75 Amendment 11 - We do not understand this response, as a list of items is not a performance specification. Contractors cannot infer what other documents Canada may decide it requires, or on what basis. We therefore request that this requirement is reworded.	The edits to Annex V were completed and referenced in the last amendment (015). Annex V SOW items indicating "to include, and not be limited to" wording were reworded. Refer to Item 4 of Amendment 015, including the updated Annex V (Rev 1).
166	SOW Part B, SOW item 12.2 - Amendment 12 updates the bubbler compressor requirements but reduces the amount of useful information provided. The bubblers are a very large electrical power draw (1200HP for current system, new system requirements unknown). As such, they will impact on many elements of the electrical system modifications. It is impossible to verify compliance with many other requirements without better definition of the bubbler system. Will Canada provide this information to bidders during the RFP phase?	The solicitation for new ABCS will be posted during the week of Jan 25, and will include the ABCS SOW. All VLE bidders may view it on Buy and Sell; if any questions remain outstanding, the bidders may then submit their questions.
167	SOW Part B, SOW item 12.2, 12.3 - No performance requirements are specified for the bubbler system and it is therefore unclear what the testing and acceptance requirements are supposed to be, or what functionality the bubbler is intended to provide. Will Canada provide additional clarification on modes of operation, balancing, working pressures and other information?	The Contractor must demonstrate that the new ABCS, when installed, will meet the manufacturer's specified performance specifications.
168	SOW Part B, SOW item 17.1, 1.1 - Requirements for crane operation refer to Beaufort sea state, which does not correspond to normal definitions of sea state. (a) will Canada please confirm significant wave height requirements? (b) will Canada provide a seakeeping analysis that allow bidders to assess acceleration and motion additions to static load requirements?	<p>a) Refer to the link, <a href="https://www.rmets.org/metmatters/beaufort-scale">https://www.rmets.org/metmatters/beaufort-scale</a>.</p> <p>b) No, the Contractor is responsible for determining the design parameters of the new crane.</p>

169	SOW Part B, SOW item 15.4, 3.4.1.2 - New bilge/ballast and fire pumps must "be of the same make, model, capacity, and arrangement as the original pumps. The QVP series is not listed in the manufacturer's marketing material (only QV and QVK series detailed). Has Canada confirmed that these pumps are still in production? Why can the sea water connection not be modified to suit a new pump when the pipework is all being replaced anyway.	The manufacturer, in 2020, had confirmed that these pumps can be supplied and will remain supported. New pumps must be supported for 15 years.
170	Sow Part B, SOW item 16.1, 3.5.5.1 - "The Contractor must install Government supplied backflow preventers in each of the five main domestic water distribution mains at convenient locations after the main distribution manifold" Would these backflow preventers serve more use in the lines to machinery header tanks and sewage plant to prevent backflow into the domestic system rather than preventing clean water backflowing into the machinery systems?	Bidders must bid on installing backflow preventers per the SOW and per the response to Question ref 136.
171	SOW Part B, 16.3 - Are any additional winterisation measures required for the conversion of water ballast tank to fresh water tank? The tank extends above the waterline and will now have a liquid with higher freezing point	No.
172	The response to this question seems to contradict the answer to question 27, where Canada stated that "(section GR01, 5.2 to 5.5) are mandatory" Can Canada breakdown the list of reference standards, indicating which ones are mandatory in their entirety, which ones are partially applicable including which specific sections are applicable, and which ones are not applicable.	The previous answers to Question ref 104 and Question ref 27, regarding the application of regulations and standards, are correct. The Contractor may request clarification if there is a question related to a particular Regulation, Rule, Code or Standard.

173	TDP - Many of the answers provided in Amendment 13 refer to the TDP update dated 20 December, 2021. We were not informed of this update until 11 Jan, 2022. Will Canada (a) confirm that all bidders were given knowledge of this update at the same time (b) ensure that future substantive changes to the RFP package are communicated through the formal amendment process and (c) ensure that there is a more timely dissemination of essential information, given the extreme time pressure for RFP response?	a) Yes, according to our records, all eligible TDP recipients, including the author of this question, were given access to updates on December 23 (for TDP update named TDP Update 21.12.20). TDP Update 22.01.06 and TDP Update 22.01.14 were also e-mailed out on January 11 and January 14, respectively. b) Moving forward, TDP updates, accessible to eligible recipients, will only be announced through a solicitation amendment on Buy and Sell. c) Thanks for your feedback.
174	TDP update (6th Jan 2022) has a drawing index that suggests there are .dwg files available. None were found within this package or any other TDP. Can Canada provide these files please?	General Arrangement Drawings have been made available in .dwg format in the TDP Update 22.01.14. The remainder of the drawings will be made available in .dwg format after contract award.
175	In response to answer ref 54 (regarding SOW Part B SOW item 13.1 - 3.3.3.12), how does Canada want to run the pumps and perform pre-charging using 24V?	SOW Part B SOW item 13.1 - Item 3.3.3.12, defines requirements for the Control power of 24VDC. It does not envision to run the pumps and perform the pre-charge from the 24 VDC circuit.
176	In response to clarification request for answer ref 84 (regarding SOW Part B 13.1 - 3.3.4.1a): The auxiliaries of the PTO-Converter and driving Main Engine (cooling water) are not working without any electrical energy provided, it is not possible to start-up the ship mains ("AC bus") with the shaft alternator alone. The normal procedure for running up a ship mains from the blackout is the way via the emergency genset as it is air cooled / mainly self-contained. Alternatively large UPS, made for 460 V 3AC can play the role of the Em-Genset.	The capability to connect the power bridge to a dead bus is required. The converter connects to the PTO bus, and that PTO bus can be de-energized when its bus coupler to the ship service bus is open.  The source of auxiliary power, pre-charge circuit and cooling pumps, needed to start the power bridge should be defined by Contractor. The possibilities are: 1- the PTO generator (if it is capable to operate autonomously), 2 - an added feeder (spare breaker) from the ship service bus.
177	SOW Part B SOW item 13.1 - 3.3.3.3, can another front end towards the shaft generator be considered if deemed to provide the same performance towards the grid?	The converter must meet the requirement of SOW Part B SOW item 13.1 - Item 1.1.1.2.b. The AFE refers to a converter capable of maintaining / regulating the DC link voltage at the required level in all operating modes.
AMENDMENT 017 - ref 178 to 184		
178	Part B SOW Item 16 : - Document PL 70-11-02 grey water system of 31 pages, page 22 is illegible;	Page 22 contains items listed for Galley drains. A clearer copy is not available, but the items required for this page are referenced in an updated <b>3D Virtual Scan</b> (link - <a href="https://mpembled.com/show/?m=K7qtxRjn1yy&amp;mpu=71&amp;mpv=CCGTFOX;password=TerryFoxVLE">https://mpembled.com/show/?m=K7qtxRjn1yy&amp;mpu=71&amp;mpv=CCGTFOX;password=TerryFoxVLE</a> ), under Section Directory 'Bubbler Compartment' and 'FWD AUX Machinery Compartment Upper landing'. New tags are labelled under Area Spec Index as '16.6 Sewage & Grey Water Piping System'.

179	<p>RFP section 6.1 Financial Capability :</p> <p>For the presentation of financial reports, Point 6.1.</p> <p>For the purpose of disclosing this confidential information to competent persons only.</p> <p>Do we have the possibility of making a videoconference meeting to present his information ?</p> <p>This would make it possible not to give away his documents.</p>	<p>The information to be provided requires a detailed assessment by a cost analyst; a videoconference meeting is not sufficient enough to carry out the assessment. The requested information would be sent, from the bidder, directly to the cost analyst.</p>
180	<p>RFP article of agreement 7.11 Insurance Requirements:</p> <ul style="list-style-type: none"> <li>- Can we have the insurable value of the Terry Fox ship ?</li> <li>- Annex D, point D4, Can you clarify what is included in the \$ 15,000,000 property listing ?</li> </ul>	<p>No, the insurance value of the vessel will not be disclosed.</p> <p>Point D4 (All Property Insurance) is requested as the Contractor is going to order high value equipment, spare parts, etc., and the goods will remain in the Contractor's care, custody and control after they are delivered.</p>
181	<p>RFP article of agreement 7.13 Contract Financial Security:</p> <p>For the financial guarantee, can you confirm that PWGSC will recognize that the extras will be subject to the increased costs of the financial guarantee ?</p>	<p>No, PWGSC does not recognize that there will be an increase. After award, Canada will make Milestone and monthly progress payments on completed Work; the remaining Work to be invoiced for the duration of the contract will not be larger than the initial value and risk secured at award, even as extras get added.</p>
182	<p>In regards to request for proposal (RFP) section 2.7 Work Period, a bidder cannot make this certification in good faith without knowing what is a reasonable amount of unscheduled work. This is becoming increasingly difficult as Canada amends the SOW (amendment 5 refers) to refit selected areas through per unit pricing which is essential, refit by 1379. Given this reality can Canada define precisely how many hours is "reasonable".</p>	<p>No, Canada cannot precisely define the number of hours that constitutes a reasonable amount of unscheduled work.</p>
183	<p>TDP, 1-07-80-2 Load Analysis - We note that the only electrical load analysis provided dates back to before delivery of the vessel and many line items do not correspond to data provided elsewhere in the requirements. Can Canada provide a more recent version of the load analysis, as this is a critical design document for sizing new equipment and systems?</p>	<p>Refer to item 2 of this amendment.</p> <p>The CCG has recently completed a general load analysis of the existing electrical installation (TDP Update 22.01.27). This analysis is for reference only and in no way limits the awarded Contractor's responsibility to develop and maintain electrical load analysis, per SOW item 14.1, to reflect all changes associated with the VLE refit and determine all final electrical system design requirements.</p>

184	<p>SOW Item 11.4 – HULL PROTECTION SYSTEM SERVICE:</p> <ul style="list-style-type: none"> <li>* Para: 3.3.1.1: “The Contractor must isolate, disconnect, and remove all existing electrical cables from the existing Cathelco control panel to the four reference cells and the ten anodes.”</li> <li>* Para: 3.5.1.6: “The Contractor must install all new electrical cabling from the new, and the original hull protection system control panels to their respective reference cells and anodes in accordance with Jastram instructions”</li> <li>* And Amendment 5: “The four forward anodes and two forward reference cells must be connected to the new forward thyristor control cabinet.”</li> <li>* Just got in touch with the OEM representative (Charles Brown) from Jastram. He told us that not all of the electrical cables were to be replaced (his recommendation).</li> <li>* Could you confirm that ALL the cables are to be replaced by new ones for all the aft and forward anodes and reference cells?</li> </ul>	<p>Yes, all electrical cables must be replaced as specified in 3.3.1.1 and 3.5.1.6 of SOW Item 11.4.</p>
AMENDMENT 018 - ref 185 to 187		
185	<p>Ref Q&amp;A 166, When will the ABCS (air bubbler compressor system) solicitation be published?</p>	<p>The ABCS solicitation was published on Jan 31, 2022.  <a href="https://buyandsell.gc.ca/procurement-data/tender-notice/PW-OLZ-002-7757">https://buyandsell.gc.ca/procurement-data/tender-notice/PW-OLZ-002-7757</a></p>

186	<p>ANNEX P of the RFP, Mandatory Technical Criteria, M18, Procurement Team, point b.</p> <p><i>'The Bidder must provide two Procurement Specialists who will be purchasing equipment itemized in Annex "H" – Appendix 2 -Milestones (Price and Delivery), as specified in Annex "A" - Statement of Work. Each individual must: b. have handled the procurement of a component valued at a minimum of 10 million dollars during their experience.'</i></p> <p>This requirement suggests that the Procurement Specialist must have issued a purchase order for a single component valued at a minimum of 10M\$. This is a very high value for a single component, it is very unlikely to happen even on large projects. A requirement such as «procurement of components valued at a minimum of 10M\$ for a single project» would be more in line with what is happening in the Canadian marine industry. In this perspective, the demonstration could not be done with the submittal of a single purchase order.</p> <p>Alternatively, reducing the 10M\$ to 1M\$ or 2M\$ would open the door to serious candidates.</p>	<p>After more consideration and further review, Canada has corrected and clarified the intent, and added an equivalent criteria to M18, b.</p> <p>Refer to Item 2 of this amendment for an update to Annex P (rev 3).</p> <p>NOTE: Amendment 010 ( Annex P, rev 1) updated requirements M19h (per item 2) and M10 (per Q14 in the amendment or Qref 58 in the log)). Amendment 011 (Annex P, rev 2) updated requirements M6 (per Q ref 61 and item 2). +C307</p>
187	<p>The current Contract Financial Security requirement states that the bidder must provide a price for:</p> <p>a) a performance bond (form PWGSC-TPSGC 505) and a labour and material payment bond (form PWGCTPSGC 506), each in the amount of 20 percent of the Contract Price; OR b) a security deposit as defined below in the amount of ten percent (10%) of the Contract Price.</p> <p>The cost of this security will be part of the evaluated price. This will be an excessively high \$ number which adds no value to the ship, the refit nor does it protect against non-performance.</p> <p>We again request PSPC to reconsider their procurement strategy and prequalify shipyards first, then evaluate them on best value, a combination of price and technical merit, without inclusion of the cost of financial security.</p>	<p>This request, regarding the method of evaluation, has been previously answered. Responses to identical or similar type questions can be found at Question refs 16, 79b, 139, and 140.</p> <p>In regards to the requirement for financial security:</p> <ol style="list-style-type: none"> <li>1) Financial security protects Canada from Contractor default; should a Contractor default, any contract financial security shall be redeemed and applied to compensate Canada to the limit permitted in the contract;</li> <li>2) It is equally applicable for all Bidders to include in the evaluated cost; and</li> <li>3) If awarded, Canada will pay for the entire cost of financial security, as it appeared in the bid submission.</li> </ol>
AMENDMENT 019 - ref 188 to 196		

188	SOW item 12.1 - Regarding item 3.4.3.7, a governor with mechanical backup is no longer seen as beneficial, as they can cause stability problems and eventually break the engine coupling. Considering this, is the use of a Woodward PG-EG without backup allowed?	The requirement defined in item 3.4.3.7 will remain unchanged.
189	SOW item 12.1 - Regarding item 3.4.3.14, engine control is hard wired; we believe that it is required to be hardwired for safety reasons (formal confirmation pending). Either way, whether required by Class or not, it is deemed safer to have engine control signals hardwired. Can Canada please allow engine control to be hard wired?	Engine Control functions may be hardwired. The onboard engine control and monitoring system must be capable of bus communication with the central control, alarm and monitoring system (CCAMS).
190	Can a Bidder accumulate credits or transfer credits related to the Indigeneous Participation Component (IPC) from other IPC programs, much like what is done with the Industrial and Technological Benefits (ITB) program? For example, the Louis Saint Laurent does not have an ITB but it does have Canadian work on it that we are allowed to credit to our overall ITB budget; that credit can be used towards other programs that do require an ITB. Can the same be done for IPCs, or does the IPC need to be directly for the Terry Fox VLE?	No, it has to be directly for the Terry Fox VLE contract.
191	SOW Part A, GR 7.0: The answer to question ref 121 under Amendment 013 notes that pre-refit sea trials are to be conducted i.a.w the SNAME Sea Trials Bulletin under GR 7.0, SOW Part A. This bulletin covers many trials, many of which require instrumentation that is not currently installed on the ship. Is the contractor required to provide and install this equipment, and if so how and when is this to be done and costed?	The Contractor is to bid per the SOW. The Contractor is to arrange for a vessel who are able to provide the required instrumentation. CCG will make available the time required for the installation and removal of such instrumentation, prior to and after the trials.
192	Various, Q&A ref 81: The request for proposal (RFP) refers in various places to "rated propeller power" and the answer to question ref 81 notes that this is to be used for sizing the propulsion plant. However, we cannot find a definition for this value in the RFP or supporting documentation. Will Canada clarify the value expected to be used?	Refer to drawing # A111582 CPP Propeller, offered in TDP Update 21.12.20, Section 12, Documents, Folder 12.1-1. The existing propeller designed power is to be considered 8088 Kw per shaft.

193	<p>SOW Part B, 11.18:</p> <p>The SOW for the new forward mast states "c) fabrication of new mast as per guidance drawing supplied"</p> <p>Is the guidance drawing referring to 2046-418-S-045 Rev2 Forward Mas Nav. Light Platforms Detail Drawing (Allswater)?</p> <p>Can Canada confirm the intent to have an identical mast as per the original, with new platforms. Is there any reason the platforms cant be added to the existing mast?</p>	<p>Refer to SOW, section 3.1.1.1 which states "The Contractor must replace the vessel's forward mast with a new assembly as per guidance drawing #20046-418-S-045 Rev 2." The Contractor must bid accordingly, on the basis of the referenced guidance drawing.</p> <p>Refer to SOW section 1.1.1.1 which states "The intent of this specification is to replace the vessel's forward mast with a new mast of new structure and arrangement."</p>
194	<p>SOW Part B, 12.6:</p> <p>Jastram Model S2-723-35 steering gear system has been identified as the pre-selected replacement package. It is the contractor's responsibility to ensure that the proposed system will meet or exceed the functionality and performance of the current system, and will meet the requirements of both ABS and TCMSS. Are any required changes to the pre-selected steering gear package to be identified at the bid stage and included in a new technical proposal/quotation?</p>	<p>The Bidder must assume that the proposal, as presented, is sufficient and that no changes are required.</p>
195	<p>SOW Part A, GR 07:</p> <p>It is required that the vessel performance after the VLE is, in all respects, equal to or better than that prior to the VLE. This is to be demonstrated by comparison of pre-arrival sea trials and delivery trials. However, this poses a number of challenges and we request further definition of Canada's expectations. The pre-arrival trials will be conducted with degraded hull coatings, etc. While this will make some performance attributes easier to meet, others will become more difficult - for example crash stop and other manoeuvres. How are the trials results to be interpreted to account for these factors?</p>	<p>The pre-arrival trials will be conducted immediately after ice breaking operations; the hull can be assumed to be clean. The hull is coated with Inerta and can be considered to be in good condition.</p>

196	<p>SOW Part A, GR 08:</p> <p>Can the documents presented in GR 08, 1.2.1.1 be provided? MSI Doc May 2019 (weights and centres..), MSI Doc Jan 2012 (Towage Stability), Dwg # TBD (Hydrostatic Curves), Dwg # TBD (Draft Marks), Dwg # TBD (Trim and Stability Book) and Dwg # TBD (3D modelling manual).</p>	To be included in TDP Update 22.02.11.
AMENDMENT 020 - ref 197 to 210		
197	<p>Part B, SOW item 11.14:</p> <p>The ETS (Eastern Technical Services Company) report only identifies the points where the steel is under the acceptable thickness decrease, it does not delimit the areas of steel to be replaced. The CCG should sit down with the company that took the thickness tests and the classification society of the ship in order to agree and produce a plan/drawing precisely delimiting the plate inserts and structural elements to be replaced considering a percentage of additional decrease since the tests were taken and knowing that it does not want to return to these spaces in the coming years to replace steel again. It is always the responsibility of the Ship Owner to agree with his Classification Society what he must replace on his ship. This exercise cannot be done by the shipyards as part of a call for tenders evaluated on the price.</p> <p>Will a steel plan/drawing to be replaced with a summary detailing, location, sampling, lengths or dimensions and steel grade of each of the elements to be replaced be provided to bidders so that they can all bid for the same quantities of steel?</p>	Refer to Item 3 of this amendment.

198	<p>Part B, SOW item 12.1: For item 3.4.2.26d, individual cylinder pressure sensors are common in dual fuel or gas engines. When operating with gas with otto-principle, cylinder heads need to be equipped with special electrical sensors to adjust individually cylinder specific sensitive burning process. This is needed to load the cylinders equally, to avoid knocking and misfiring which may result explosions in exhaust gas duct. So, there are strong arguments with gas engine. However, in diesel engines the burning process is different and no engine specific adjustments are needed. There are no other strong arguments either which would add value for the investment. That is why cylinder heads aren't commonly equipped with continuous cylinder pressure monitoring, as it adds costs and brings little value. If we were to implement continuous cylinder pressure monitoring on our diesel engines it would take specific R&amp;D, engineering and testing to implement this on the cylinder head. Also, it would result in Canada owning an engine with specially made cylinder heads not used elsewhere. And not likely to be used elsewhere either. Medium speed diesel engines do have indicator valves on top of the cylinder head where peak pressures can be measured by a handheld device. Would it be possible to eliminate this requirement and allow peak pressures to be measured by handheld devices?</p>	<p>Provision of individual cylinder pressure monitoring will be considered optional. Bidders must include the cost of provision of such a system, as specified, as an option, if available. The cost will not be included in the overall bid price.</p> <p>Refer to Item 4 of this amendment for edits to the SOW.</p>
199	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2</p> <p>The system is to be delivered to St. John's, NL, during the expected refit period. This will require any bidder not based in St. John's to pay for unnecessary shipping costs and for the risk of multiple long distance deliveries. Will Canada revise this requirement to avoid penalization of certain bidders?</p>	<p>Canada will deliver the compressor to the awarded site.</p>

200	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2:</p> <p>The bubbler RFP includes a requirement for the supplier to develop an installation design package. However, the VLE bidder is required to take responsibility for this. How will any conflicts be resolved?</p>	<p>The VLE Contractor must install the new Air Bubbler Compressor System (ABCS) hardware in accordance with specific installation requirements defined by the supplier of the new ABCS, as would be expected for the installation of any new equipment or hardware.</p> <p>More general installation requirements such as an access and closing plan, lifting requirements, electric cable replacement and other general requirements unique to the vessel must be developed by the VLE Contractor, taking into account the equipment and hardware specific requirements of the ABCS supplier. The VLE Contractor is responsible for the correct installation of the new ABCS. This is covered under the installation allowance in the Terry Fox SOW (SOW item 12.2 in Part B, refer to question ref 80).</p> <p>An access and closing plan has been added to ANNEX V PDR-CDR (REV 2), per section 3.2.1.5 of SOW item 12.2 (refer to item 9 of this amendment). Note that REV 1 was released per question ref 158 (and Item 4 of Amendment 015).</p>
201	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2:</p> <p>The bubbler scope of supply includes various replacement panels for consoles that are to be removed in the VLE. How are bidders to ensure that these panels will be compatible with the new consoles?</p>	<p>The Bidder must assume that any new panels will not conflict with console planning. Any conflicts will be addressed after award using the PWGSC 1379 process.</p>
202	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2:</p> <p>The bubbler RFP does not include any space, weight or power information, other than a not to exceed power. Are VLE bidders required to assume that this maximum power will be used? What other information can be utilized to assure that the delivered equipment will not conflict with other aspects of the VLE, given that bubbler selection will presumably not be confirmed until after VLE bids are finalized?</p>	<p>The Bidder must assume that the new bubbler machinery will:</p> <ul style="list-style-type: none"> <li>a) Require 485KW electrical feed to each new bubbler compressor VFD.</li> <li>b) Fit within same footprint as existing equipment.</li> <li>c) Will not present any change in weight.</li> <li>d) Will not conflict with other aspects of the VLE.</li> </ul> <p>Any changes to the above confirmed after contract award will be dealt with via the PWGSC 1379 process.</p> <p>Refer to Item 5 of this amendment for edits to the SOW.</p>

203	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2: Is it now the responsibility of VLE bidders to track all Q&amp;A on the Bubbler RFP to stay informed of changes to the scope? Will Canada inform VLE bidders of amendments to the bubbler system RFP in a timely manner?</p>	<p>Bidders can request notifications for any tender notice on Buyandsell.gc.ca (see image below for guidance). Note that any questions regarding the Bubbler Compressor RFP can be directed to that file's Contracting Authority. Refer to the response to question ref 185 for the link.</p>
204	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2: In general, why is the bubbler compressor being treated as GFE in this way, while other larger and more complex items are part of the VLE package? This approach adds considerable risk due to the types of interfacing issue noted above.</p>	<p>Such approaches are determined at the discretion of the CCG.</p>
205	<p>Bubbler RFP and Terry Fox VLE Part B, SOW Item 12.2: We note that the bubbler RFP uses a rated technical bid evaluation approach, which is sensible given the complexity of the technical issues involved. Will Canada therefore reconsider the evaluation approach to the VLE as a whole, which is vastly more complex and higher risk?</p>	<p>This request, regarding the method of evaluation, has been previously answered. Responses to identical or similar type questions can be found at Question refs 16, 79b, 139, and 140.</p>

206	SOW Part B, SOW Item 17.1 - 40 T crane - 3.4.1.6 (a) requires the crane to recover a crew barge from either port or stbd side of the vessel. Can the weight of the crew barge be provided please?	The lifting weight of the barge is 19000 lbs. The drawing of the barge will be available in TDP Update 22.02.18.
207	SOW Part B, SOW Item 17.1 - 40 T crane - 3.4.1.6 (f) requires the crane to position deck loads over the majority of the working area of the deck. Can the weight of the deck loads be provided please? Can the term "majority of the working area" be clarified please?	These items will not exceed the crane lift and extension requirements specified elsewhere in the SOW.
208	SOW Part B, SOW Item 17.1 - 40 T crane - 3.4.1.6 (g) requires the crane to discharge stores, containers, palletized goods and equipment from vessel to shore. Can the weight of these items be provided please?	These items will not exceed the crane lift and extension requirements specified elsewhere in the SOW.
209	TDP Section 11 - In Drawing 07-07-04/05, Double Bottom Frames 60 to 79 P&S, Frame 2, the double bottom tanks between Frs. 60 and 95 are identified as holding water ballast. Drawing T131027, Tank Capacity Plan, identifies the same double bottom tanks as Fuel Oil tanks. Please confirm the latter is correct.	#2 Double Bottom Tanks between frames 60 and 94 carry diesel fuel oil. The notation on drawing 07-07-04 is incorrect.
210	SOW Part A, GR 08: Can the latest GHS (General HydroStatics) model be provided please?	No. A GHS model is not available. The Contractor must complete stability analysis in GHS and build a GHS Model, as required, to suit. GHS Stability analysis must be Class reviewed and approved prior to submission to CCG. CCG will supply a partial 3D model in Rhino, in TDP Update 22.02.18, for further development by the Contractor and for use in conjunction with the GHS model produced by the Contractor.  Refer to Item 7 of this amendment for edits to the SOW.
AMENDMENT 021 - ref 211 to 217		
211	Mandatory Requirements, Annex P: The answer to question ref 140 in Amendment 014 notes the requirement to provide a Preliminary Work Schedule, as extended under Amendment 011. However, this does not address the issue of realism as posed in the original question. Will Canada assess the feasibility of the proposed schedule and labour loading based on metrics of yard and subcontractor capacity or merely use "ticks in boxes" to note that every bullet point is addressed? If the latter, then what if any penalties will be applied to a Contractor who submits an unreasonable proposal?	As set out in Part 2 of the RFP Instructions to Bidder, section 2.7 Work Period, by submitting a bid, the Bidder certifies that they have sufficient material and human resources allocated or available, and that the Work Period comprised is adequate to, both, complete the known work and absorb a reasonable amount of unscheduled work.  In support of the Bidder certifying that it has the resources required to meet the contractual delivery date, Canada requires this information i.e. the schedule labour loading, to ascertain how the Bidder plans to resource this Work given the level of effort required for this VLE.  Remedies under the contract will be exercised, as required, in the event the Contractor defaults on any contractual obligations.

212	<p>RFP Annex S:</p> <p>Will Canada explain why an NDA is being required for all data sharing under this project? What policy is driving and justifying this restriction, given that the vessel is 40 years old and uses no sensitive technologies? The need to establish NDAs with a very large number of potential equipment suppliers is a large and increasing problem and risk to the delivery of proposals within the allotted time.</p>	<p>There is no policy driving this decision. For the CCGS Terry Fox, the NDA is legally required to safeguard selected third party content in the TDP.</p>
213	<p>RFP Annex S:</p> <p>Further to the above, if Canada continues to require these NDAs, can further clarification be provided on how far-reaching this requirement is? For example:</p> <p>a) Are independent contractors (contract staff) required to execute NDAs, or are they considered to be covered by the organization to which they are providing services?</p> <p>b) Are companies required to sign NDAs before receiving RFQs based on TDP information, or only when elements of the TDP itself are to be forwarded?</p> <p>c) Are vendors specified in the RFP required to execute NDAs, or has this already been arranged by Canada?</p> <p>d) If companies need to flow through information to their own suppliers and subcontractors, are they also required to put NDAs in place?</p> <p>e) What penalties will be applied to bidders and suppliers who fail to follow these procedures?</p>	<p>a) Anyone to whom the drawings or documents (contents of the TDP) are disclosed to, must sign a non-disclosure agreement containing the same terms (i.e. the entity's authorized representative must sign on that entity's behalf).</p> <p>b) If a document or a drawing needs to be shared, then yes (per a)), an NDA is required, but the NDA can be signed at the time the information is being shared.</p> <p>c) See response in a). No, the Bidder will be responsible for getting the NDAs signed by its sub-contractors.</p> <p>d) Yes, see response in a). and General Conditions 2030- 06 Subcontractors subsection 3.). No, the Bidder will be responsible for getting the NDAs signed by its sub-contractors.</p> <p>e) Information provided to the bidders is licensed to Canada and, as such, Canada can only share this information under the condition that it will be shared under a Non-Disclosure agreement. If a bidder or supplier fails to sign the NDA or fails to act in accordance with the NDA, Canada or the owner of the information, could commence legal action against the bidder. Moreover, Canada may consider that by failing to do so, you have not complied with all the requirement of the bid solicitation and are non-responsive, hence your bid will be rejected.</p>
214	<p>RFP Annex S:</p> <p>Further to both the above, as all bidders will be contacting many of the same vendors, OEMs, etc, will Canada establish and provide bidders with a copy of a registry of all companies who have already signed NDAs for this project, to avoid multiple requests?</p>	<p>No, Canada will not provide such a registry.</p>

215	<p>Part B, SOW item 12.1: Regarding local gauges item 3.4.3.12. Modern engine control systems have all requested information available in local display unit as a standard, where values are easy to find and comfortable to read. Electrical sensors fulfil the high safety and reliability standards expected from a modern engine, and no human is requested to read mechanical gauges for these purposes. Up-to-date sensors and electrical measurement devices are very reliable, more than traditional mechanical gauges. Maintenance, including changing electrical sensors is an easy and fast task. Having double measurements devices would mean high investment cost and increased operational maintenance cost without added value. It will also again mean that Canada will end up with a unique one-of-a-kind configuration. Considering the statements before, can Canada please explain why mechanical gauges are viewed critical?</p>	<p>The provision of local mechanical gages will be considered optional. Bidders must include the cost of provision for such an arrangement, as specified, as an option, if available. The cost will not be included in the overall bid price.</p> <p>If local gages are not offered, all parameters for which mechanical gages have been specified, must be included in the engine electronic monitoring package. Additionally, redundancy in electronic device monitoring must be provided for the following points:</p> <ul style="list-style-type: none"> <li>a) Lube Oil Pressure to main bearings</li> <li>b) Cooling Water Pressure</li> <li>c) Cooling Water Temperature to Engine</li> <li>d) Cooling Water Temperature out of Engine</li> <li>e) Charge Air Pressure</li> <li>f) Fuel Oil Pressure</li> <li>g) Exhaust Gas Temperature Before and After Turbocharger</li> </ul> <p>Refer to Item 3 of this amendment for edits to the SOW.</p>
216	<p>For Part B SOW item 12.14 requirement 1.1.1.2h, it is requested to refill the CPP system with EAL oil. To operate the CPP with EAL oil, the CPP needs to be upgraded to be EAL compliant. Is Canada requesting to perform such an upgrade?</p>	<p>No, Canada is not requesting an oil upgrade to an Environmentally Acceptable Lubricant. This requirement is to be deleted and reference made to clause 3.2.1.2. The systems are to be refilled with new oil. "New oil" is to be interpreted as being of the same type as is now in use as per "CCGS Terry Fox Lube 2021" application list offered in TDP, VLE SOW Documents/GR Documents, or an equivalent product as may be defined in GR 02, Section 7.</p> <p>Refer to Item 4 of this amendment for edits to the SOW.</p>



220	<p>SOW Part B, SOW item 17.1, point 3.4.1.2 says that the new 40 T crane "must be a pedestal mounted, have 360° slewing capability and have an articulated (knuckle) main boom with a retractable jib boom. " Other references to the crane configuration say the main boom must be articulated but do not mention a knuckle boom. The SOW generally seeks the same capabilities for the new crane as for the existing one, which is not a knuckle-boom design. Can CCG please confirm whether a knuckle-boom crane is required, or whether the knuckle reference in 3.4.1.2 is an error?</p>	<p>The requirement is for an "articulated (knuckle boom)" crane. The terms articulated and knuckle boom are to be interpreted as interchangeable for these purposes.</p> <p>"Retractable jib boom" is in reference to the outer section of the boom assembly, beyond the knuckle pivot point (i.e. the outer boom section).</p> <p>"Retractable" is in reference to the ability of the outer boom section, beyond the knuckle joint, to be folded back under the main boom section.</p> <p>A knuckle boom crane is required.</p>
221	<p>SOW Part B, SOW item 16.8, point 3.4.1 - Minisplit condenser to be mounted in mudroom. This will have a significant impact on the heat load balance for the mudroom. Has this been assessed by Canada? Is additional cooling required for the mudroom?</p>	<p>No additional cooling is required for the mud room (aft cargo space).</p>
222	<p>Part B Section SOW item 19.2, Integrated Control Systems REV1 Section 2.2.1.1 makes a reference to a document 19.2-6. Please confirm if this document is accessible.</p>	<p>This document is not available and reference to it is to be deleted.</p> <p>The Contractor must develop the final point list for the new CCAMS based on all other requirements defined in SOW item 19.2.</p> <p>Refer to Item 6 of this amendment for the SOW edits.</p>
223	<p>Reference RFP SOW Part B SOW item 18 - For systems that are GFE and the solution has been fully designed by CCG, the bidder assumes that the following SOW requirement is solely CCG responsibility: "All design, material and Work must meet ABS and Transport Canada Marine Safety and Security (TCMSS) requirements for approval and purpose on the vessel."</p> <p>The systems affected are:</p> <ul style="list-style-type: none"> <li>- 18.2 Automatic Identification System Replacement</li> <li>- 18.4 Distance Measuring System Equipment Replacement</li> <li>- 18.6 VHF Direction Finder Replacement</li> <li>- 18.7 Closed Circuit Television System</li> </ul> <p>Can Canada confirm that this assumption is correct?</p>	<p>The Contractor must retain total system responsibility for all SOW items.</p> <p>The Contractor must submit the CCG provided design documents and hardware details to ABS for approval.</p> <p>If ABS approval requires any change to the design package and hardware provided by CCG, any such change will be addressed via the PWGSC 1379 process.</p>

224	<p>Reference RFP SOW Part B SOW item 18 - For systems where the new equipment to be installed has been defined by the CCG and the solution has been fully designed by CCG, the bidder assumes that the following SOW requirement is solely CCG responsibility: "All design, material and Work must meet ABS and Transport Canada Marine Safety and Security (TCMSS) requirements for approval and purpose on the vessel."</p> <p>The systems affected are:</p> <ul style="list-style-type: none"> <li>- 18.3 Autopilot Upgrade</li> <li>- 18.9 Gyro Compass Upgrade</li> </ul> <p>Can Canada confirm that this assumption is correct?</p>	<p>The Contractor must retain total system responsibility for all SOW items.</p> <p>The Contractor must submit CCG provided design documents and hardware specification details to ABS for approval.</p> <p>If ABS approval requires any change to the design and hardware definition package provided by CCG, any such change will be addressed via the PW/GSC 1379 process.</p>
225	<p>Reference RFP SOW Part B SOW item 18.2 - The scope of 18.2 Automatic Identification System Replacement is to replace the R4 AIS system and upgrade to the new Canada-supplied R5 AIS system. However, the SOW scope is only for the replacement of 3 antennas and their associated cables. There is no mention of supplying/installing an R5 AIS CDU (Control Display Unit). Can Canada confirm if the R5 AIS CDU and associated components are already installed (and if so provide details) or will this be done post-delivery.</p>	<p>The installation of the noted CDU will be completed by CCG.</p>
226	<p>The SOW does not mention any Top side EMC analysis.</p> <p>Can Canada confirm that no analysis is required even though new antennas are being installed</p>	<p>An EMC analysis is not required.</p>
227	<p>Can Canada confirm the existing cable routes (trays, secondary trays) meet current class ABS requirements?</p>	<p>The Contractor must bid on the assumption that the existing cable trays and secondary trays meet the ABS requirements.</p>
228	<p>For legacy equipment that the bidder will be interfacing to, can Canada confirm/provide existing manuals if available (E.G. SAT radio)? Is access to the OEM available as well?</p>	<p>Manuals for retained, existing equipment can be made available (Bidders are requested to specify for which equipment).</p> <p>The bidders may contact the equipment OEM's, at their discretion.</p>
229	<p>Can Canada confirm which ABS MVR (rule set) is applicable?</p>	<p>Rules applicable to the SOW are defined in SOW Part A GR 01 (General Requirements 01), Section 5.</p> <p>Refer to section 5.10 for the definition of ABS rule applicability.</p>
230	<p>Reference RFP SOW Part B SOW item 18.2, requirement 3.3.1.11 – Statement appears to be incomplete 3.3.1.11.</p> <p>"The Contractor must re-use existing cable penetrations and repack with classification society approved products. Any cable penetration that is determined to be not reusable by the contractor must be approved for replacement by either the TA..."</p>	<p>Delete "either".</p> <p>Refer to Item 7 of this amendment for the SOW edits.</p>

231	Reference RFP SOW Part B SOW item 18, 18.3 Autopilot Upgrade - 2.4.1.1. The Contractor must source the new Navipilot 4000 Heading Control System. The requirement does not indicate whether a basic or track Control unit is to be procured. Can Canada confirm?	The Contractor is to procure the Basic Navipilot 4000 System in accordance with component part numbers offered in the SOW. If these part numbers are no longer applicable, direct replacement parts, as offered by the OEM, must be procured.
232	It appears that we are missing the Drawing the following Drawing/ Document for SOW Part B item 11.25 – Logistics Office Renovation: -11.25-3 – New Log Office Concept Development Guidance	Document 11.25-3 was merged with document 11.25-2 and is available in TDP update 21.12.20, Section 11, Documents, Refer to document 11.25-2_3 Logistics Office Design Guidance.
233	11.27 Passageway Decks (SOW Part B), 3.4.1.1 The new flooring system must be Dexotex Terrazzo M Fine topcoat over Dexotex A-70 underlayment. Question: Is this application to be installed in all areas on all 4 decks? Main Deck, Forecastle Deck, A-Deck and B-Deck?	Yes, the specified flooring system is to be installed in all areas noted.
234	11.29 Galley Renovation (SOW Part B), 3.7.1.6 Finished deck covering must be Dexotex seamless epoxy, color coat system over Dexotex VLV IMO underlayment. New floor covering system must include integral bas covers around complete perimeter of the area being dealt with to a height of 3" above finished floor height. 3.8.1.7 The Contractor must install a tile base trim over the bulkhead lining system around the full perimeter of the new flooring system. The tile base trim must match the flooring tiles. Question: The tile base trim must match the flooring tiles? Is this a typo?	Yes, this is an error. Delete section 3.8.1.7.  Refer to Item 8 A) and 8B) of this amendment for the SOW edits.
235	11.29 Galley Renovation (SOW Part B), 3.8.1.5 the contractor must install floor covering system as referenced in section 3.6.1.5. Question: I do not see section 3.6.1.5?	Delete 3.6.1.5 and replace with 3.7.1.6.  Refer to Item 8 C) of this amendment for the SOW edits.
236	SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B): Section 1.1.1.1 and 1.1.1.2 A) makes reference to a feasibility that will be provided by CCG. When will this study be provided?	This assessment is available in TDP Update 21.12.20, Section 17, Documents. Refer to 17.12-1 Tow Pin Assessment CCGS Terry Fox_2021-05-12.

237	<p>SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B):</p> <p>The sentence "Note: Items 3, 4 and 5 will be done via PWGSC 1379 action" in Section 1.1.1.2 are assumed to mean "c, d and e". Can you please confirm that this assumption is correct?</p>	<p>This note has been deleted.</p> <p>Refer to the response in question ref 90.</p>
238	<p>SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B):</p> <p>Section 2.5.1.2 states that sections 3.5.1 and 3.6.1 of the SOW are to be completed regardless of proposal acceptance. The specification does not contain a section 3.5.1 or 3.6.1. Does the CCG mean 3.1.5 and 3.1.6?</p>	<p>Correct.</p> <p>Delete 3.5.1 and 3.6.1 and replace with 3.1.5 and 3.1.6 respectively.</p> <p>Refer to Item 9 A) of this amendment for the SOW edits.</p>
239	<p>SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B):</p> <p>Section 3.1.2 states that "Sections 3.2.1.1 through to 3.4.1.6 are the requirements to be taken into account when developing the Contractor's proposal". This specification does not contain sections 3.12.1.1 through to 3.4.1.6. Please clarify the sections to be considered.</p>	<p>Delete 3.2.1.1 through 3.4.1.6 and replace with 3.1.2.1 through 3.1.4.7 respectively.</p> <p>Refer, also, to the response for question ref 241.</p> <p>Refer to Item 9 B) of this amendment for the SOW edits.</p>
240	<p>SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B):</p> <p>Section 3.1.3.1 states " , as part of their bid the Contractor is to provide to the CG TA the costs to supply, install and connect either the "Shark Jaw" or the "Fork" system" . Are these costs expected to be provided with the bid or with the future proposal specified in section 1.1.1.2 b)?</p>	<p>These costs are to be included in the bid price.</p>
241	<p>SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B):</p> <p>With respect to section 2.5.1.3, what work does the CCG expect the contractor to estimate for this bid?</p>	<p>The Contractor is to bid per the SOW defined requirements, based on the assumption that the specified hardware installation will be completed in accordance with the referenced Tow Pin Assessment CCGS Terry Fox_2021-05-12.</p> <p>The Contractor must review and validate this reference document and develop the required installation plan based on this document. Should any aspect of the referenced document be determined to be not feasible during the Contractor's review and validation, then any related change in Work scope will be addressed using the PWGSC 1379 process.</p>

242	<p>SOW item 17.12 TOWING PIN INSTALLATION (SOW Part B):</p> <p>The PDS (pricing data sheet) requires the bidder to provide "All material, equipment and labour to complete the requirement of this Sub-Section." It is not clear how this information can possibly be provided when the substantive effort of this specification is to do the review a study and create a proposal.</p>	Refer to the response in question ref 241.
AMENDMENT 023 - ref 243 to 262		
243	<p>The current ANNEX Q - ADDITIONAL INFORMATION ON SELECTED EQUIPMENT requests that we provide 'Start and aux air compressors replacement' information.</p> <p>This is a section currently not included in the SOW .</p> <p>Please advise what information the CCG is enquiring about.</p>	<p>The SOW reference (15.11) is to be changed to 12.1 (sections 3.5.5 and 3.5.7), and 15.12 (section 3).</p> <p>Refer to item 2 of this amendment for the edits to Annex Q.</p>
244	<p>SOW Part B, SOW item 16.18 - The steering gear compartment HVAC service provider is required to design the minisplit system but the two major components (condenser and evaporator) are specified in the SOW . Please confirm that Canada will take responsibility for the correct sizing of this system.</p>	Canada will accept responsibility for design of the system.

245	<p>SOW Part A (GR 01 - points 5.2.1.1, 5.3.1) gives inconsistent guidance as to the regulations that will apply for machinery and systems.</p> <p>Part A, GR 01, 5.2.1.1 says "The vessel must meet the Act and Regulations in accordance with the Canada Shipping Act 2001 and comply with the additional Regulations, Standards, Guidelines and Codes referenced therein. The vessel must also comply with the Acts, Regulations, Standards, Rules, Codes and Guidelines referenced in SOW Part A GR 1 sections 5.2 to 5.15." Section 5.3 includes Marine Machinery Regulations (SOR/90-264), but notes "These regulations do not apply as per MTRB M18057 referenced in SOW Part A GR 01 section 5.3 a) above." This can be read as a blanket cancellation of all Marine Machinery Regulations requirements.</p> <p>Part A, GR 01, 5.3.1 similarly says MTRB M18057 allows the use of "the draft Vessel Construction and Equipment Regulations (VCER) and associated amended Technical Publications (TP's) as a regulatory regime instead of the current Marine Machinery Regulations for the machinery and systems modifications. However, MTRB M18057, as provided in Appendix C, waives the Marine Machinery Regulations specifically for the equipment listed in condition (c), items I to vi that is being replaced as part of the life extension. It does not appear to authorize a wholesale replacement of the Marine Machinery Regulations with the Draft Vessel Construction and Equipment Regulations, or even the use of VCER for all machinery and systems modifications in the Contract. For example, the steering gear in SOW Part B, 12.6 appears not to be covered.</p> <p>For machinery that is being refurbished but not replaced, or for replacement machinery not identified in MTRB M18057 (such as the steering gear in SOW Part B, 12.6), does</p>	MTRB 18057 to adopt the draft Vessel Construction and Equipment Regulations and TP's is technically limited to the machinery listed in schedule c). The Marine Machinery Regulations (SOR/90-264) apply for all other machinery being refurbished, replaced or modified.
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<p>246</p>	<p>"SOW Part A, GR 01, 5.10.1.1 says ""All modifications to the vessel and systems, including component supply, plan approval and onsite survey must be completed in accordance with ABS Rules and Codes, "" such as the 2021 Marine Vessel Rules. However, the vessel is not currently maintained in Class and was built to LR Class in 1983</p> <p>As the vessel is not in class, it is unclear whether all aspects of the design and condition are to ABS's satisfaction. This appears to create a risk to the Contractor, in that ABS might not approve a system modification designed to the current Rules if the remainder of the system (i.e., existing elements not identified in the SOW) does not meet Rule requirements.</p> <p>(1) Has ABS evaluated the compliance of the vessel with ABS Rule requirement in its current state, and is a record of this evaluation available to bidder if so?</p> <p>(2) Would Canada consider modifying the GR to permit the PWGSC 1379 process to be applied in the event that modifications beyond those identified in Part B are deemed necessary by ABS in order to meet ABS Rule requirements?"</p>	<p>No, the vessel has not been evaluated against ABS Rules. Any modification to retained systems and equipment for which modification is not directly specified in the SOW, as required to satisfy ABS requirements, will be addressed via the PWGSC 1379 process.</p>
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<p>SOW item 12.1 - Regarding item 3.4.3.7, in answer 188 Canada replied that the requirement it to remain unchanged. We would like to raise this once again, as the risks in our opinion are significant.</p> <ul style="list-style-type: none"> <li>•A PGG governor is intended for generator sets, it has a speed setting motor for speed control. The speed setting is rather slow normally at a narrow speed range around rated frequency for exact and small speed corrections needed for load control (utilizing droop), synchronizing etc. It is not intended for main engines. The version with back up which is intended for main engines is the PGA (not asked for in SOW). Speed setting input is a pneumatic pressure giving fast speed changes over a large speed setting area, however this is never in use when using it as a backup. Instead it is used a manual knob which is backup for the pneumatic system, the knob is then set at maximum position during normal operation. The knob is however quickly turned to what corresponds to clutching in speed if required. Due to the above, when switching to backup during running, the failed engine will strive to increase speed and start dragging the healthy engine, which will result in damaging equipment.</li> </ul>	<p>Contractors must bid on the supply of the main engine governing system, as per the SOW.</p> <p>Should a bidder have concerns with the SOW governing system, as specified, the Bidder may provide detail of an alternate arrangement with a justification for any alternate arrangement. If an alternate arrangement is suggested, the bidder must provide the price difference between the specified governing system and their alternate proposal.</p> <p>Refer to item 3 of this amendment for edits to the SOW .</p>
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	<p>•A modern electronically controlled engine will not run without its control system operational. Therefore, the control system has a redundant power source in case of a black out. The control system sends a speed control signal to the hydraulic actuator to control engine speed. This control signal is of low power (mA) and fed by a redundant power source in case of a black out. Since an engine will not run without its control system the mechanical ball head back up governor isn't really providing any redundancy as the redundant power source for the control system will still allow the engine to operate. In case the redundant power source for the control system isn't working the engine won't run either way. Mechanically controlling the engine while the control system is operational should be considered a safety issue where there is the risk for breakdown of equipment, loss of engine/shaft power, and possible personnel injury.</p> <p>•Conclusion: adding a mechanical back up is decreasing safety instead of adding redundancy. Adding a system for running healthy engine in parallel with faulty engine as well as parallel running of two faulty engines is quite complex when including how such switchover between different modes would happen automatically, and only decrease the safety of the system. Considering the above if Canada insists on a mechanical ball head back up governor, will Canada absorb the possible risk of safety and reliability issues and hold bidders harmless for any claims or damages resulting this governor selection?</p>	
248	SOW part B, SOW Item 16.18, point 2.4.1.2: SOW Part B requires a class approved HVAC system for the steering gear compartment. What does this mean? Class societies do not normally approve HVAC systems	All work included in the SOW must be acceptable to Class. If Class waives the requirement for formal approval of any specific aspect of the overall work scope, this must be documented by the Contractor and conveyed to the TA.
249	Can Canada provide an updated schedule for when the vessel will be available post contract award for verification of the entire TDP package.	It is anticipated that the vessel will be available in St. John's NL. during the months of November and December 2022. Specific dates and arrangements for the Contractor access to the vessel will be confirmed after contract award.
250	SOW part B, SOW Item 11.26: The drawing 20-109-100 Rev 2, sheets 1 through 4. (developed by Poseidon Marine Consultants Ltd (PMC) ) has indicated shelvings in these stores. However, SOW B has not specified these shelving units. Please advise if CCG will provide the shelving units.	The Contractor does not need to supply or install shelving as part of this requirement.

251	SOW part B, SOW Item 11.26: Please confirm if the structural assessment has been carried out for conversion of this void space to stores or not.	A structural assessment has been completed.
252	SOW part B, SOW Item 11.26: Please confirm if class approval has been obtained for this modification. Drawing no. 20-109-100 Rev 2, Sheets 1 through 4 ( developed by Poseidon Marine Consultants Ltd (PMC) )	Class approval has not been obtained for this modification. The Contractor must bid as per the SOW. The Contractor is responsible for obtaining Class approval for all requirements of the overall SOW. Should Class approval require changes to the detail of 11.26, these changes will be addressed via the PWGSC 1379 process.
253	SOW part B, SOW Item 11.26: The drawing 20-109-100 Rev 2, Sheets 1 through 4. ( developed by Poseidon Marine Consultants Ltd (PMC) ) shows a fiberglass grating which has not been addressed in SOW part B. Please confirm if CCG will provide this fiberglass grating.	The Contractor must provide this fibreglass grating.
254	Ref Annex A SOW Part B SOW item 18.1, para 3.3.7.6 – Requirement heading states: "Install 32 speakers ..."; however, the sum of the subsections speakers (a)-(d) equals 33. Please confirm requirement.	Bid on 33 speakers.  Refer to item 4 A) of this amendment for edits to the SOW.
255	Ref Annex A SOW Part B SOW item 18.1, para 3.3.8.3 – Requirement heading states: "Install (1) Master Station, and 11 IP telephones ..."; however, the sum of the components in the subsections (a)-(b) equals 13. Please confirm requirement.	Bid on 13 telephones.  Refer to item 4 B) of this amendment for edits to the SOW.
256	Ref Annex A SOW Part B SOW item 18.1, para 3.3.8.7 – Requirement heading states: "... two (2) DECT telephones ..."; however the subsection (c) indicates 3 DECT telephones. Please confirm requirement.	Bid on 3 DECT Phones.  Refer to item 4 C) of this amendment for edits to the SOW.
257	Ref Annex A SOW Part B SOW item 18.1, para 5.4.1.2 – Requirement states " The Contractor must provide two onsite training sessions, each of eight (8) hours duration. One session must be offered to each of two vessel crews and to the CCG Technicians responsible for the maintenance on the system". Please confirm this means: 1 session for Crew 1 1 session for Crew 2 1 session for CCG technicians	Two sessions in total CCG technicians will attend courses offered to the two crews.
258	Ref Annex A SOW Part B SOW item 18.1, para 5.4.1.2 – Please confirm "On Site" means Contractor's facility	"On site" means the Contractor's facility.

259	Ref Annex A SOW Part B SOW item 18.1, para 5.4.1.2 – Please confirm that all sessions will be held serially (i.e. all session in a three day work period)	No. One session before crew change, and one session after crew change. Two sessions are required.
260	Ref Annex A SOW Part A GR 06 para 3.1.1.6 – Please confirm that all "manuals", including those from the OEMs are required in French.	Yes, all manuals from the OEMs are required in French.
261	Ref Annex A SOW Part A GR 06 para 3.1.1.6 – Please confirm that all "data sheets", are required in French.	Yes, all datasheets are required in French
262	Ref Annex A SOW Part B SOW item 18.1, para 3.3.2.45 – Please confirm that the IP requirement for sub para (a) and (b) should be upgraded to IP56 based on the requirement in Annex A SOW Part A GR04 para 1.1.1.3	The IP requirement must be upgraded to IP56. Refer to item 4 D) of this amendment for edits to the SOW.
AMENDMENT 024 - ref 263 to 276		
263	SOW Part A, GR 01, 5.12.2.1 and 5.13.1.1 lists numerous industry standards described as "applicable as referenced in the SOW item or otherwise in the Regulations or Rules listed in section SOW Part A GR 1 sections 5.1 to 5.10." However, many of these ISO, ASME, ASTM and other standards are not called out anywhere in SOW Part B, nor have we found references to them in the published Regulations and Rules listed in SOW Part A, GR 01, 5.3 to 5.10. Is the list accurate? Does CCG expect the contractor to apply all the standards listed in SOW Part A, GR 01, 5.12.2.1 and 5.13.1.1 to all relevant work on the project, even if they are not referenced?	GR 01, 5.12.2.1 and 5.13.1.1 have been amended; refer to item 5 of this amendment.  Standards remaining in these sections are to be applied to the various SOW requirements, as applicable.
264	SOW part B, item 11.9 : Is a weather tight & heated shelter required to complete the U/W coating?	The Contractor must apply underwater coatings in accordance with the environmental conditions stipulated by the coating manufacturer. Refer to GR 02 section 9.2.

265

SOW part B, items 19.5 :

These documents/drawings seem missing:

Yes, the photos offered under specification 19.1 are to be taken as the offered reference to these panels, drawings are not available.

Wartsila Dwg 6041C1001	Engine Control Room Console Layout
Wartsila Dwg 6043C1001	Stbd Wing Panel Layout
Wartsila Dwg 6042C1003	Fwd Wheelhouse Panel Lever Layout
Wartsila Dwg 6042C1001	Fwd Wheelhouse Panel Buttons Engine 1 & 2 Layout

Given the number of documents, we are looking for the documents by their identification # referenced in the specification.

The references of wartsila 6441C1001 have been integrated into the DDT without having reference # (from spec) only names... and, in addition, they seem to have been put in 19.1-2, instead of 19.2 as mentioned in the index.

Are these photos (below) that we should take as a reference?

CCGS Terry Fox VLE TDP - Complete > ... > Documents > 19.1-2 Existing Operator Station Panels

Nom	↑
	Aft WH Panel.JPG
	Fwd WH Instruments.JPG
	FWD WH Panel.JPG
	FWD WH Telegraph (2).JPG
	Port WH Wing.JPG
	Stbd WH Wing.JPG

266	SOW part B, item 19.7: These documents/drawings seem missing (i.e. left side column submitted in question on the table below):	Refer to the document request List and the TDP (a snippet showing the right-hand side column, from the Request Log provided in the TDP shown below; note that MCP 100-40 is on page 118/406 of document JQ201305 Preliminary Manual.pdf):
	<u>Jastram Drawings (below)</u>	TDP Update 21.12.20, Section 12, Documents - Drawings included in document JQ201305 Preliminary Manual at page numbers noted below.
	B-721229 MCP 100-20 Enclosure O.A.D.	MCP 100-20 not applicable to project. MCP 100-40 applies, refer to drawing #C721682, pg 118
	B-721243 Rudder Angle Indicator (RAI 580) O.A.D.	Pg 303/406
	B-721311 AP 600 Alarm Panel Overall Dimensions	Pg 337,396/406
	B-721312 CP 600 Control Panel Overall Dimensions	Pg 124/406
	B-721319 CP 375 Control Panel Overall Dimensions	CP 375 not applicable to project, reference to be removed from SOW.
	B-721354 NFU/FFU Lever Overall Dimensions	FFU Lever, refer to drawing B-721495, pg 122 NFU Jog Lever, refer to drawing A-721018, pg 123
	B-721493 RAI (ROI) X80 Dual Stage Dimmer Assy. Overall Dimensions	Pg 126/406
	B-721503 Helm Seat Lever Controller (LC 350H) overall Dimensions	Pg 279/406, B-721495, Pg 122, 278/406
	B-721516 Unit Change-over Panel Overall Dimensions	Pg 125/406
	C-721220 DSC Enclosure Overall Dimensions	Pg 117/406
	C-721580 3-Face Rudder Angle Indicator (RAI 3300) Overall Dimensions	Drawing C-721580 does not apply. Refer to drawing C-721204, Pg 127/406
	D-701265 Electric Wheel w/Mech ROI (Sht 3 of 3)	Pg 121/406
267	RFP Annex P - Mandatory Criteria 17c Senior Marine Engineer: CANADA has requested that a Senior Marine Engineer who possesses a TC certificate of competency as a First Class Marine Engineer be provided within the Engineering Firm Mandatory criteria. The requirement for this position is not entirely clear as the engineering firm will primarily be performing engineering and drafting work packages; as such it is recommended that this position be removed.  Alternately, if the position is to be retained, can CANADA confirm that the requirement for a TC certificate of competency does not include a requirement for that candidate to have be currently validated to sail? Additionally will Canada accept similar certifications from other authorities, including the Canadian Navy's QL6B certification?	The position is to be retained. The individual's certification must be issued by Transport Canada, but it does not require to be currently validated to sail.

268	<p>RFP Annex P - Mandatory Criteria 17a, b, c, d, e:</p> <p>The subject criteria "Hold a provincial, state, or federal (national) licence to practice as a professional engineer". Given that CANADA has previously confirmed in Q&amp;A#1 that bidders may employ specialists in other areas of the world can CANADA please confirm specifically that a UK Chartered Engineer designation satisfies the intent of this requirement?</p>	<p>Although not required to be certified in Canada, Engineers used must have the education and experience required to be eligible for certification as a professional engineer in a Canadian Province.</p>
269	<p>SOW item 12.9 - 'Co XYZ' has received a request from a shipyard to quote on the replacement propeller blades for the Terry Fox icebreaker propellers. The drawings provided are old and illegible... Given the need for extreme precision, no propeller manufacturer would be able to submit a quote based on the poor quality of these drawings.</p>	<p>The propeller blades are to be sourced from Wartsila. These are identified on the No Substitute List (Annex U). Refer to section 3.2.1.1 of SOW item 12.9.</p>
270	<p>SOW item 12.1, 3.5.8 - We would like to be able to quote on this heat exchanger replacement to all the bidding contractors on this VLE; however I need more information about the existing equipment and the desired performance requirements.</p> <p>I have reviewed the latest amendment #022 and cannot find the performance specifics that I am looking for.</p> <p>The existing heat exchangers are indicated as; SPX Flow Technology, APV</p> <p>Type: J092, Plate Heat Exchanger SN: 629164 Capacity: 6406.0 kW Heat Transfer Surface: 157.8 m<sup>2</sup> Differential test Pressure: 16 bar Volume side 1/side 2: 262.9/262.9 Liters Working Temp: 110/0°C</p> <p>Could you please provide additional information on the following;</p> <ul style="list-style-type: none"> <li>•FLOW RATE, HOT SIDE &amp; COLD SIDE (m<sup>3</sup>/h)</li> <li>•FLOW RATE, COLD SIDE (m<sup>3</sup>/h)</li> <li>•HOT SIDE - WORKING INLET TEMPERATURE</li> <li>•HOT SIDE - WORKING OUTLET TEMPERATURE</li> </ul>	<p>The new heat exchanger design criteria is to be confirmed by the Contractor. Cooling system modifications are to be engineered and matched to the new machinery installation being provided, through the SSSI. The intent is not to simply replace the existing heat exchangers; the new exchangers must be designed to accommodate propulsion system updates.</p>

271	<p>Question Ref 70 - The pricing data sheets (annex H appendix 1) include a single line item for all project management activities and appear to have nowhere to quote any of the engineering work that will be required to accomplish the project. As these are likely to be significantly more costly than most of the other line items, will Canada explain how they are to be presented to ensure that Contractors are quoting realistically for these essential elements of the work?</p>	<p>Original response to question Ref 70 - Engineering costs should be incorporated into the individual SOW items, as applicable for each SOW Work item.</p> <p>Amended response: After more consideration, engineering costs have been added to the Pricing Data Sheet (PDS), Rev 1 (item 4 of this amendment).</p>
272	<p>Please advise if the A-70 underlayment mentioned in SOW item 11.25 (3.5.1.5), and SOW item 11.27 (3.4.1.1) shall be IMO certified or not?</p> <p>11.25 - LOGISTICS OFFICE RENOVATION  - 3.5.1.5. - The new flooring system must be Dexotex Terrazo M Fine Topcoat over Dexotex A-70 underlayment.</p> <p>11.27 - PASSAGEWAY DECKS  - 3.4.1.1. - The new flooring system must be Dexotex Terrazo M Fine Topcoat over Dexotex A-70 underlayment.</p>	<p>All flooring materials must be acceptable to Class.</p>

<p>Drawings &amp; documentation that has been requested by our suppliers to assist in quoting section 18:</p> <ol style="list-style-type: none"> <li>1.Topside (above bridge deck) top view layout drawing – required to establish the location for the VHF-Df antenna</li> <li>2.BNwas – (document and drawing) – required to interface to the Autopilot.</li> <li>3.Updated Navigation lights drawing – As drawn 1-07-85-10 and 33.00.01 are not compliant with Collision Regulations Canada c. 1416 Rule 21 (g) and (h).</li> <li>4.Magnetic Compass – (document and drawings) – if a fluxgate is provided it can be interfaced to the Autopilot.</li> </ol>	<ol style="list-style-type: none"> <li>1. The antennae layout (1) is offered in TDP Update 21.12.20 (Bridge Top Antenna Layout offered as drwg MM692-001-AL with 18.2).</li> <li>2. BNwas Block Diagram and Wiring Diagram will be made available in TDP Update 22.03.25. Autopilot interface with BNwas is indicated on these drawings.</li> <li>3. The ship is fitted with a blue flashing light as described. Updated navigation light arrangement drawings are not presently available.</li> <li>4. The Magnetic Compass information is found on drawing # MM692-035-WD (top left) and drawing MM692-034-BD. Both drawings are available in TDP Update 21.12.20, Section 18, Drawings. There is no other drawing available specific to the Magnetic Compass System. A fluxgate is not provided now and is not requested.</li> </ol>
<p><b>Reference bullet point 2:</b> What BNwas "document" is requested?</p> <ul style="list-style-type: none"> <li>•Pertinent regulation: Resolution MSC.128(75) (adopted on 20 May 2002) Performance Standards for a Bridge Navigational Watch Alarm System (BNwas). 4.1.3.3 To initiate the reset function, an input representing a single operator action by the OOW is required. This input may be generated by reset devices forming an integral part of the BNwas or by external inputs from other equipment capable of registering physical activity and mental alertness of the OOW.</li> <li>•RFP_CANADA: The TDP package includes drawings for the Autopilot but not the BNwas.</li> <li>•Is there an interface drawing that shows the connections between the Autopilot and the BNwas or alternatively a schematic diagram for the BNwas, together with instruction/service / technical manuals for BNwas.</li> </ul>	

	<p><b>Reference bullet point 3:</b> Can bidder confirm what specification item this is related to? Part A GR Section – General Requirements Rev 1 – 5.3 (j) refers.</p> <ul style="list-style-type: none"> <li>•Pertinent regulation: Collision Regulations C.R.C., c. 1416; Rule 21 Blue flashing light means a blue all-round light flashing at regular intervals at a frequency of 50 to 70 flashes per minute.</li> </ul> <p>Pertinent regulation: Collision Regulations C.R.C., c. 1416; Rule 45 (a) Any government vessel or any vessel that is owned or operated by a harbour, river, county or municipal police force may exhibit as an identification signal a blue flashing light when the vessel</p> <p>(i)is providing assistance in any waters to any vessel or other craft, aircraft or person that is threatened by grave and imminent danger and requires immediate assistance, or</p> <p>(ii)is engaged in law enforcement duties in Canadian waters.</p> <ul style="list-style-type: none"> <li>•RFP_CANADA: The TDP package drawing 33.00.01 dated 16 March 1983 does not include the blue flashing light.</li> <li>•Please advise if an updated drawing of the navigation lights is available or if the blue flashing light as stated in Rule 21 and Rule 45 is waived.</li> </ul>	
274	<p>RFP Annex P - Mandatory Criteria 17d Senior Electrical Engineer and M17e Senior Controls System Engineer:</p> <p>In industry, the two subject positions are often performed by the same group of specialists within the electrical engineering department. Rather than providing two nearly identical individuals it is recommended that the two requirements be consolidated into a single Senior Electrical Engineer with oversight of all electrical packages.</p>	<p>The two positions are to be staffed by two individuals as specified. The Contractor must note that both of these positions need not be staffed directly by the Contractor but that one, or both, may be staffed by other parties engaged in a joint venture with, or as a sub-contractor to the prime Contractor.</p>
275	<p>It appears that the Drawing 07-10-01 07 Machinery _ OT Flats from Section 11, is not complete. It appears that only half of the Drawing has been scanned.</p> <p>Would you be able ask the CCG to provide the full document?</p>	<p>The complete drawing will be provided in TDP Update 22.03.25</p>

276	<p>SOW Part B, SOW item 12.1, 3.6.1.7 states: "The Contractor must complete and provide a global Finite Element Analysis of the proposed structural and seat modifications required to accommodate the new PM installation." Global analysis typically involves evaluation of the entire vessel structure under global loads (for example, wave induced loads) and is not necessary for propulsion machinery replacement task; would a local analysis of the seats and supporting structure be sufficient?</p>	<p>A local analysis of the seats and supporting structure will be sufficient provided this also satisfies any specific requirement of Class.</p>
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