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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

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Gatineau, Québec K1A 0S5

Title - Sujet CCGS Terry Fox VLE	
Solicitation No. - N° de l'invitation F7049-200041/B	Amendment No. - N° modif. 015
Client Reference No. - N° de référence du client F7049-200041	Date 2022-01-19
GETS Reference No. - N° de référence de SEAG PW-\$\$\$MD-043-28394	
File No. - N° de dossier 043md.F7049-200041	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2022-05-17 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Pandini, Madeleine	Buyer Id - Id de l'acheteur 043md
Telephone No. - N° de téléphone (873) 353-9119 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

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Signature	Date

Solicitation Amendment # 015

This amendment is hereby raised :

1. To include Questions and the Responses for the solicitation.
2. To update RFP sections 2.7.1 and 2.7.2.
3. To update RFP articles of convention 7.3.1 and 7.3.2.
4. To update RFP article of convention 7.33.1 and RFP Annex V.
5. To update Annex A - Statement of Work (SOW), Part B SOW item 16.19, 3.6.2.1.
6. To update Annex A - Statement of Work (SOW), Part B SOW item 17.1, 3.6.1.5.

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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 015 adds questions ref 141 to 161 to the log.

2. To update RFP sections 2.7.1 and 2.7.2.

Subsequent to questions ref 142 and 143 response;
Under RFP PART 2 BIDDERS INSTRUCTIONS:

- Delete (in its entirety):
2.7.1
- Insert (*altered sentences are indicated in bold italics*)
2.7.1 Initial Work Period

The Initial Work Period of the Contract will start at Contract Award and will have a duration of at least fourteen (14) months. This period will end at the start of the Vessel Work Period, defined in the following section. 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.

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.

AND

- Delete (in its entirety):
2.7.2
- Insert
2.7.2 Vessel Work Period

Work on the vessel must commence and be completed as follows:

Commencement: October 1, 2023
Completion: April 1, 2025

3. To update RFP articles of convention 7.3.1 and 7.3.2.

A) Subsequent to question ref 39 response;

Under RFP PART 7 RESULTING CONTRACT CLAUSES:

- Delete (in its entirety):

7.3.1

- Insert (*altered sentences are indicated in bold italics*)

7.3.1 Initial Work Period

1. The Contract Initial Work Period will start at Contract award.
2. ***During this Initial Work Period, the Contractor is procuring one (1) 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.***
3. Additional preparation activities conducted during the Initial Work Period shall 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.
4. Design Review Meetings must take place during this period (refer to Section 7.33).
5. This period will end at the start of the Vessel Work Period.

B) Subsequent to questions ref 142 and 143 response;

Under RFP PART 7 RESULTING CONTRACT CLAUSES:

- Delete (in its entirety):

7.3.2

- Insert (*altered sentences are indicated in bold italics*)

7.3.2 Vessel Work Period

1. ***Vessel Work must commence and be completed as follows, during the Vessel Work Period:***
Commencement: October 1, 2023
Completion: April 1, 2025
2. Canada has the right to delay the arrival of the vessel at the Contractor's facility subject to the following conditions:
 - a) If Canada gives 10 calendar days advance notice of a 15 day maximum delay, the Contractor cannot claim any additional costs when arrival of the vessel at the Contractor's facility is delayed up to a maximum of 15 calendar days beyond the commencement date, above. The Completion Date will be extended by a period equal to the length of the delay.
 - b) If Canada does not provide 10 calendar days advance notice of a delay, the Completion Date will be reasonably adjusted to reflect the impact of the delay on the arrival of the Vessel and Canada will pay only the Daily Services Fee referred to in the Basis of Payment for the period of the delay.

4. To update RFP article of convention 7.33.1 and RFP Annex V.

A) Subsequent to questions ref 142, 143, and 158 response;

Under RFP PART 7 RESULTING CONTRACT CLAUSES:

- Delete (in its entirety):
7.33.1
- Insert (*altered or added sentences are indicated in bold italics*):
7.33.1 Design Review Meetings
 1. The Contractor must conduct Design Review Meetings, Preliminary and Critical, and provide the required design package deliverables listed in Annex "V" – PDR-CDR.
 2. ***The Contractor must schedule the PDR to take place between January 17th, 2023 and February 2nd, 2023.*** The PDR review shall include review of the PDR deliverables listed in the PDR-CDR Table in Annex "V" – PDR-CDR. The Contractor must submit the PDR deliverables to the Contracting Authority and the Technical Authority, for review, at least ten (10) working days prior to the scheduled meeting.
 3. ***The Contractor must schedule the CDR to take place between August 15st, 2023 and August 31st, 2023.*** The CDR review shall include review of the CDR deliverables listed in the PDR-CDR Table in Annex "V" – PDR-CDR. The Contractor must submit the CDR deliverables to the Contracting Authority and the Technical Authority, for review, at least ten (10) working days prior to the scheduled meeting.
 4. ***Monthly virtual update meetings, starting one month after Contract award and leading up to each Design Review Meeting, will also take place.***
 5. The PDR and CDR listed deliverables are often identical. If the deliverable is finalized at the PDR stage, then it may not require reviewing at CDR.
 6. ***Not all equipment purchased is expected to be delivered during the Initial Work Period. Although most of the accompanying engineering work is to be completed by the Critical Design Review stage, 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.***
 7. Where Canada alleges and the Contractor agrees that the design is defective or deficient, the Contractor must correct the design.
 8. Where the Contracting Authority and the Contractor's representative are unable to resolve the design defect or deficiency, they agree to follow the prescriptions of the Contract Dispute Resolution clause.

B) Subsequent to question ref 142, 143, and 158 response;

Under RFP Annex V:

- Delete (in its entirety):
Annex V PDR-CDR
- Insert (*altered sentences are indicated in bold italics*):
Annex V PDR-CDR (Rev 1), beginning on the following page.

ANNEX V PDR-CDR (REV 1)

DESIGN REVIEW MEETINGS DELIVERABLES TABLE, REV 1		
ITEMS	PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
	PART A - GENERAL REQUIREMENTS	
GR1 General Requirements and contract section requirements	<p>1. Any Overall Project Organizational Chart changes?</p> <p>2. updated version of the Milestone Delivery dates and VLE Work Schedule (must be produced with a commercially available project management software; review proposed software)</p> <p>3. update of subcontractor's and Field Service Representatives' (FSRs) commitments (commitments to finalize within 2 months)</p> <p>4. Risk Management Register Update</p> <p>5. Indigenous Participation Component Plan (contract Annex L)</p>	<p>1. Any Overall Project Organizational Chart changes?</p> <p>2. updated version of the Milestone Delivery dates and VLE Work Schedule</p> <p>3. Risk Management Register Update</p> <p>4. list of Government equipment that the Contractor intends to request (1.28)</p>
GR2 General Technical		
GR3 General Mechanical		
GR4 General Electrical		
GR5 Electro -Magnetic Interference		
GR6 Documentation	1. Updated Document and Drawing Registers	1. updated Document and Drawing Registers
GR7 Inspection, Tests and Trials	1. Overall ITP (completed for equipment purchases and all work period items)	1. Overall ITP (completed for equipment purchases and all work period items)
GR8 Stability	1. Preliminary Ship Stability Calculations with the new equipment/engineering changes.	1. Final Ship Stability Calculations with the new equipment/engineering changes.
GR9 Berthing and Docking		
GR10 Services		
GR11 Field Service Representative (FSR) Requirements		1. FSR commitments attained.
GR12 Integration and Power Management	<p>Detail of full power management approach must be provided by the Contractor for review and comment by the TA and Class Approval. The Power Management Plan must include:</p> <p>a)Description of all envisioned operational modes and primary means of overall load management associated with each.</p> <p>b)Detailed explanation of what power management functions reside in what hardware: Switchboard, CCAMS, PCS, other, and how such functions are integrated.</p> <p>c)Detail of operator interface options and all operator selectable functionality and configuration options.</p> <p>d)Detail of all Automatic, Semi-Automatic, Manual and Emergency operational procedures.</p> <p>e)Drawing package, as required by Class, for approval of the overall integration and Power Management Plan.</p> <p>f)Definition of Integration and Power Management Software layout in which all related software, and its host hardware, is identified. An explanation of the functionality and integration of all related software platforms must be offered as well as access to all such software.</p>	<p>Detail of full power management approach must be provided by the Contractor for review and comment by the TA and Class Approval. The Power Management Plan must include:</p> <p>a)Description of all envisioned operational modes and primary means of overall load management associated with each.</p> <p>b)Detailed explanation of what power management functions reside in what hardware: Switchboard, CCAMS, PCS, other, and how such functions are integrated.</p> <p>c)Detail of operator interface options and all operator selectable functionality and configuration options.</p> <p>d)Detail of all Automatic, Semi-Automatic, Manual and Emergency operational procedures.</p> <p>e)Drawing package, as required by Class, for approval of the overall integration and Power Management Plan.</p> <p>f)Definition of Integration and Power Management Software layout in which all related software, and its host hardware, is identified. An explanation of the functionality and integration of all related software platforms must be offered as well as access to all such software.</p>
PART B		
10.0 SAFETY & SECURITY		
10.1 Life Raft Recertification		
10.2 Lifeboat & Miranda Davit Annual Inspection		
10.3 Fire Detection System Replacement	<p>a)Drawings and general manufacturer provided system, technical and parts information applicable to all hardware and functionality proposed for the new FDS.</p> <p>b)Class approval documentation for proposed hardware</p> <p>c)FDS Cabinet Arrangement Drawings</p> <p>d)Confirmation of proposed installation locations for all major components – central processing unit(s), batteries, HMI stations etc.</p> <p>e)Confirmation of proposed power supply requirements and arrangements.</p> <p>f)FDS Block Diagram</p> <p>g)Cable Route & Cable Loop Line Diagrams. Cable route drawing must show equipment layout, and as fitted cable routing over General Arrangement.</p>	<p>a)Drawings and general manufacturer provided system, technical and parts information applicable to all hardware and functionality proposed for the new FDS.</p> <p>b)Class approval documentation for proposed hardware</p> <p>c)FDS Cabinet Arrangement Drawings</p> <p>d)Confirmation of proposed installation locations for all major components – central processing unit(s), batteries, HMI stations etc.</p> <p>e)Confirmation of proposed power supply requirements and arrangements.</p> <p>f)FDS Block Diagram</p> <p>g)Cable Route & Cable Loop Line Diagrams. Cable route drawing must show equipment layout, and as fitted cable routing over General Arrangement.</p>
10.4 Fire Fighting Equipment Recertification		

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1				
ITEMS	PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS		
10.5 Watertight Door Replacement	a)Drawings and general manufacturer provided technical and parts information applicable to all hardware proposed for the new WTDS. b)Class approval documentation for proposed hardware. c)System arrangement plan indicating proposed location and arrangement of the system overall and detail as applicable to each door installation. d)Hydraulic system one line diagram e)Hydraulic system piping arrangement indicating all system components and proposed hydraulic routing over General arrangement f)Electrical system drawings including proposed power supplies, all system interconnection requirements and wiring requirements at each door. g)Cable list and connection diagrams. h)Electric cable routing plan indicating all system components and cable runs over General Arrangement. i)Detail drawings of hydraulic pump set motor controller j)All other documentation required by Class to allow Class approval of the proposed WTDS, its installation on the vessel and issuance of Class approved plans for the WTDS. k)Wheelhouse Panel Fire Door Status	a)Drawings and general manufacturer provided technical and parts information applicable to all hardware proposed for the new WTDS. b)Class approval documentation for proposed hardware. c)System arrangement plan indicating proposed location and arrangement of the system overall and detail as applicable to each door installation. d)Hydraulic system one line diagram e)Hydraulic system piping arrangement indicating all system components and proposed hydraulic routing over General Arrangement f)Electrical system drawings including proposed power supplies, all system interconnection requirements and wiring requirements at each door. g)Cable list and connection diagrams. h)Electric cable routing plan indicating all system components and cable runs over General Arrangement. i)Detail drawings of hydraulic pump set motor controller j)All other documentation required by Class to allow Class approval of the proposed WTDS, its installation on the vessel and issuance of Class approved plans for the WTDS. k)Wheelhouse Panel Fire Door Status		
10.6 Fire Main & Monitor Piping System Replacement	Submit the proposed BOM of the new fire main and monitor systems (preliminary)	Submit the proposed BOM of the new fire main and monitor systems (final)		
10.7 Local Application Fire Fighting System Installation	a)Drawings and manufacturer provided general technical and parts information applicable to all hardware proposed for the new LAFFS. b)Layout drawing of pump, showing main dimensions and location of pipe connections and attachment points c)Class approval documentation for the proposed LAFFS hardware. d)LAFFS pipe and tube diagrams and arrangements. Pipe routing drawings must show equipment layout and proposed pipe and tube routing over General Arrangement as well proposed location of section valves and spray nozzles. e)Feed Pump location and piping size and routing detail f)Fire main connection and piping size and routing detail. g)Electrical diagrams confirming proposed power supply requirements and all other electrical and control connections and cable routing. h)Connection Diagram/Cable Schedule i)Internal circuit diagram of electric cabinets j)Panel layouts k)All other documentation required by Class to allow Class approval of the proposed system and its installation on the vessel and issuance of Class approved plans for the LAFFS.	a)Drawings and manufacturer provided general technical and parts information applicable to all hardware proposed for the new LAFFS. b)Layout drawing of pump, showing main dimensions and location of pipe connections and attachment points c)Class approval documentation for the proposed LAFFS hardware. d)LAFFS pipe and tube diagrams and arrangements. Pipe routing drawings must show equipment layout and proposed pipe and tube routing over General Arrangement as well proposed location of section valves and spray nozzles. e)Feed Pump location and piping size and routing detail f)Fire main connection and piping size and routing detail. g)Electrical diagrams confirming proposed power supply requirements and all other electrical and control connections and cable routing. h)Connection Diagram/Cable Schedule i)Internal circuit diagram of electric cabinets j)Panel layouts k)All other documentation required by Class to allow Class approval of the proposed system and its installation on the vessel and issuance of Class approved plans for the LAFFS.		
10.8 Safety Relief Valves	Components datasheets, electrical plan and planned location (preliminary)	Components datasheets, electrical plan and planned location (final)		
10.9 Fog Horn Installation				
10.10 FM200 System Modification				
10.11 FM200 System Monitoring				
11.1 Hull Cleaning	11.0 HULL & RELATED STRUCTURES			
11.2 Hull Inspection				
11.3 Hull and Structural Steel Repairs				
11.4 Hull Protection System Service				
11.5 Sea Chests & Sea Bays		Access and Closing Plan (approved by class)		
11.6 Sea Chest& Sea Bay Protection System Service				
11.7 RO Suction Sea Chest				
11.8 Fender Repairs				
11.9 Hull Coating				
11.10 Sea Valves and Connections				
11.11 Main Deck Plating Repair				
11.12				
11.13 Superstructure and Decks Coating				
11.14 Internal Steel Repair (Air Trunk)				
11.15 Void & Miscellaneous Tanks				
11.16 Vent & Sounding Pipes		Access and Closing Plan (approved by class)		
11.17				
11.18 Forward Mast Replacement		Class approved drawing for the new mast		
11.19 At Bulwark Replacement		Class approved drawing for the specified bulwark repairs and upgrades		
11.20 Window & Skylight Replacement				
11.21 Window Wiper Replacement				
11.22 Forward Stores Hatch Replacement		Class approved drawing for the new hatch and hatch installation		

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1			CDR - Critical Design Review Meeting FINAL DOCUMENTS	
ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS		
11.23	Weather Door Replacement			
11.24				
11.25	Logistics Office Renovation	a)Preliminary Floor plan arrangement b)Preliminary Elevation arrangement of each wall c)Fixed mounting requirements for outfitting d)Preliminary Bulkhead lining plan e)Preliminary Ceiling lining plan f)Preliminary Electrical outfit plan including 120VAC electrical receptacles, lighting and light switching arrangement, ICS layout, phones and PA speaker arrangement, fire detection hardware layout, vessel's LAN connection layout. g)Complete BOM identifying detail of all outfitting to be installed.	a)Final Floor plan arrangement b)Final Elevation arrangement of each wall c)Fixed mounting requirements for outfitting d)Final Bulkhead lining plan e)Final Ceiling lining plan f)Final Electrical outfit plan including 120VAC electrical receptacles, lighting and light switching arrangement, ICS layout, phones and PA speaker arrangement, fire detection hardware layout, vessel's LAN connection layout. g)Complete BOM identifying detail of all outfitting to be installed.	
11.26	Void Space Conversion			
11.27	Alleyway Deck Coverings Replacement			
11.28	Blige Cleaning			
11.29	Galley Renovation	a)Preliminary Floor plan arrangement b)Preliminary Elevation arrangement of each wall c)Fixed mounting plan for all equipment and outfitting d)Preliminary Bulkhead lining plan e)Preliminary Ceiling lining plan f)Preliminary Electrical outfit plan including 120VAC electrical receptacles, lighting and light switching arrangement, ICS layout, phones and PA speaker arrangement, fire detection hardware layout. g)Preliminary Domestic water plan h)Preliminary Grey water plan i)Complete BOM identifying detail of all equipment and outfitting proposed j)OEM specification sheets for all new equipment proposed k)Production drawings for all items of outfit requiring custom manufacture Access and Closing Plan	a)Final Floor plan arrangement b)Final Elevation arrangement of each wall c)Fixed mounting plan for all equipment and outfitting d)Final Bulkhead lining plan e)Final Ceiling lining plan f)Final Electrical outfit plan including 120VAC electrical receptacles, lighting and light switching arrangement, ICS layout, phones and PA speaker arrangement, fire detection hardware layout. g)Final Domestic water plan h)Final Grey water plan i)Complete BOM identifying detail of all equipment and outfitting proposed j)OEM specification sheets for all new equipment proposed k)Production drawings for all items of outfit requiring custom manufacture Access and Closing Plan	
11.30	Central Stores Rebuild			
11.31	Focsle Deck Storage Locker Installation			
11.32	Noise Abatement			
			12.0 PROPULSION & MANOEUVERING SYSTEMS	
12.1	Propulsion Machinery Replacement	Refer to section 3.11 for all details, but generally to include: 1. Preliminary Electrical schematics/design for the PS and the vessel; 2. Preliminary Electrical hardware for the PS and the vessel; 3. Preliminary Software Architecture/Design; 4. Preliminary Vibration Analysis for the PS with its sub-base and vessel's base and structure; 5. Preliminary Structural drawings/design for the PS and the vessel structure; 6. Preliminary Mechanical drawings/design for the PS and the vessel; 7. Preliminary Mechanical hardware for the PS and the vessel; 8. Preliminary Aux systems drawings/design for the PS and the vessel & Major components datasheets; 9. Preliminary Heat Rejection Analysis for the central cooling system; 10. Preliminary Auxiliary hardware for the PS and vessel;	Refer to section 3.11 for all details, but generally to include: 1. Final Electrical schematics/design for the PS and the vessel; 2. Final Electrical hardware for the PS and the vessel; 3. Final Software Architecture/Design; 4. Final Vibration Analysis for the PS with its sub-base and vessel's base and structure; 5. Final Structural drawings/design for the PS and the vessel structure; 6. Final Mechanical drawings/design for the PS and the vessel; 7. Final Mechanical hardware for the PS and the vessel; 8. Final Auxiliary systems drawings/design for the PS and the vessel & Major components datasheets; 9. Final Heat Rejection Analysis for the central cooling system; 10. Final Auxiliary hardware for the PS and vessel;	

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1

ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
		<p>11. Preliminary Details of a Failure Modes and Effect Analysis (FMEA) for the PS; 12. Preliminary EC Integration and Installation Specifications and Drawings; 13. Preliminary PS ship's lifting/handling procedures with required setups, required vessel's shipping route(s), dismantling(s), shipping opening(s), temporary structural reinforcement(s) packages (specs and drawing); 14. Preliminary Design of the PS components' lifting and handling attachment points; tools and equipment required for maintenance, for transportation, for temporary storage in the shipyard and for transfer from storage to the vessel's engine room; 15. Preliminary PS (including all separate components and equipment) packaging and protection required for transportation, temporary storage in the shipyard and transfer from storage to the vessel's engine room; 16. Preliminary PS Inspection Test Plan (PS ITP, for integration/reference in the OVERALL ITP) to cover as a minimum the FAT, VIT, DTP and SAT; 17. Final listing of the Classification Society and/or TCMS appropriate and applicable Certifications and Approvals required; 18. Final Integrated Logistics Support (ILS) documentation; 19. Final Shipping and Handling and route</p>	<p>11. Final Details of a Failure Modes and Effect Analysis (FMEA) for the PS; 12. Final EC Integration and Installation Specifications and Drawings; 13. Final PS ship's lifting/handling procedures with required setups, required vessel's shipping route(s), dismantling(s), shipping opening(s), temporary structural reinforcement(s) packages (specs and drawing); 14. Final Design of the PS components' lifting and handling attachment points; tools and equipment required for maintenance, for transportation, for temporary storage in the shipyard and for transfer from storage to the vessel's engine room; 15. Final PS (including all separate components and equipment) packaging and protection required for transportation, temporary storage in the shipyard and transfer from storage to the vessel's engine room; 16. Final PS Inspection Test Plan (PS ITP, for integration/reference in the OVERALL ITP) to cover as a minimum the FAT, VIT, DTP and SAT; 17. Final listing of the Classification Society and/or TCMS appropriate and applicable Certifications and Approvals required; 18. Final Integrated Logistics Support (ILS) documentation; 19. Final Shipping and Handling and route</p>
12.2	Bubbler Compressor Replacement		
12.3	Bubbler Piping Replacement	a)BOM for the new bubbler compressor air discharge piping system. b)Class approval documentation for all proposed materials c)Access and Closing Plan as per section 3.2	a)BOM for the new bubbler compressor air discharge piping system. b)Class approval documentation for all proposed materials c)Access and Closing Plan as per section 3.2
12.4	Bubbler Piping Cofferdam Construction		
12.5	Rudder, Stock & Carrier Bearing Inspection		
12.6	Steering Gear & Control Upgrade		
12.7			
12.8	Stern Thruster Maintenance	<p>New motor and VFD proposal package : a)Motor specification detail b)VFD specification detail c)Electric cabling requirement detail d)Detail of all measures incorporated in the motor/VFD package to mitigate common mode voltage risks. e)Detail of all requirements for integration, connection and configuration with the existing stern thruster control system.</p>	<p>New motor and VFD proposal package : a)Motor specification detail b)VFD specification detail c)Electric cabling requirement detail d)Detail of all measures incorporated in the motor/VFD package to mitigate common mode voltage risks. e)Detail of all requirements for integration, connection and configuration with the existing stern thruster control system. f)Class approval documentation for all proposed hardware</p>
12.9	Propellers Service		
12.10	Tailshafts & Stern Tubes		
12.11	Rope Guards		
12.12	Tailshafts Wear-down		
12.13	Intermediate Shafts & Bearings		
12.14	CPP System Service		
13.1	Shaft Alternator Replacement & Frequency Stabilization	<p>Include the following : a)Electrical Single Lines and Schematics - preliminary b)Complete Bill of Materials (BoM) - preliminary c)Mechanical Drawings - preliminary d)Operation Procedures e)Maintenance Procedures f)A documentation registry g)Factory Acceptance Test Procedures up to and including full load trials h)Site Acceptance Test Procedures i)Functional Descriptions</p>	<p>Include the following: a)Electrical Single Lines and Schematics -- final b)Complete Bill of Materials (BoM) - final c)Mechanical Drawings - final d)Operation Procedures e)Maintenance Procedures f)A documentation registry g)Factory Acceptance Test Procedures up to and including full load trials h)Site Acceptance Test Procedures i)Functional Descriptions j) Class Approval</p>
14.1	Electrical System Analysis	<p>13.0 ELECTRICAL POWER GENERATION</p>	<p>13.0 ELECTRICAL POWER GENERATION</p>
14.2	Switchboards Upgrade	<p>14.0 ELECTRICAL POWER DISTRIBUTION</p>	<p>14.0 ELECTRICAL POWER DISTRIBUTION</p>
14.1	Electrical System Analysis	<p>Short Circuit Calculations - preliminary Coordination Analysis - preliminary Arc Flash Analysis - preliminary Load Analysis Study - preliminary SINGLE LINE DIAGRAM - preliminary</p>	<p>Short Circuit Calculations - final Coordination Analysis - final Arc Flash Analysis - final Load Analysis Study - final SINGLE LINE DIAGRAM - final Class approval</p>
14.2	Switchboards Upgrade		

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1					
ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS		
14.3	Motor Control Centers Upgrade				
14.4	Electrical Distribution Panels Service				
14.5	TEP Inverter Replacement	provide a DC power supply plan - preliminary a)TEP Inverter capacity determination based on assessment, and Class approval, of all electrical loads, new and existing, that must be supplied from the TEP system. b)Updated electrical drawing indicating all loads to be supplied by the new TEP system. c)Complete BOM for a new TEP Inverter system d)Product data and specification sheets for all hardware to be installed. e)An Access Plan that details any structural removals required to facilitate replacement of the TEP Inverter and charger. f)A Closing Plan that details all structural material specifications and weld procedure details required for reassembly of structural removals identified in the Access Plan	provide a DC power supply plan - final a)TEP Inverter capacity determination based on assessment, and Class approval, of all electrical loads, new and existing, that must be supplied from the TEP system. b)Updated electrical drawing indicating all loads to be supplied by the new TEP system. c)Complete BOM for a new TEP Inverter system d)Product data and specification sheets for all hardware to be installed. e)Class approval documentation for the new TEP Inverter and the new battery charger. f)An Access Plan that details any structural removals required to facilitate replacement of the TEP Inverter and charger. g)A Closing Plan that details all structural material specifications and weld procedure details required for reassembly of structural removals identified in the Access Plan		
14.6					
14.7	Megger Survey				
14.8	Thermal Scan Survey				
14.9					
15.0 AUXILIARY SYSTEMS					
15.1	Sea Water Piping System Replacement				
15.2	Bilge & Ballast System Piping Replacement				
15.3	Ballast Tanks				
15.4	Pump Replacement	Access and Closing Plan	Access and Closing Plan (approved by class)		
15.5					
15.6					
15.7					
15.8	Fuel Oil Transfer Equipment Replacement	<u>Transfer Pumps</u> a)General arrangement drawings. b)OEM information and specifications and performance data sheets c)Confirmation of new pump fit within existing piping arrangement. <u>Suction Strainer</u> a)General Arrangement drawings and verification that mesh size is in accordance with the requirements of the transfer pump manufacturer <u>Flow Meters</u> a)General Arrangement and detail drawings. b)OEM specifications and performance and accuracy data sheets. c)Confirmation of fit within exiting piping arrangement. d)Confirmation of ability to communicate flow data to CCAMS and communications protocol used. <u>Quick Closing Valve System</u> a)General Arrangement and detail drawings of valves and control system b)Confirmation of valve fit within existing piping arrangement. c)Confirmation of proposed means of operation – pneumatic or hydraulic.	<u>Transfer Pumps</u> a)General arrangement drawings. b)OEM information and specifications and performance data sheets c)Confirmation of new pump fit within existing piping arrangement. <u>Suction Strainer</u> a)General Arrangement drawings and verification that mesh size is in accordance with the requirements of the transfer pump manufacturer <u>Flow Meters</u> a)General Arrangement and detail drawings. b)OEM specifications and performance and accuracy data sheets. c)Confirmation of fit within exiting piping arrangement. d)Confirmation of ability to communicate flow data to CCAMS and communications protocol used. <u>Quick Closing Valve System</u> a)General Arrangement and detail drawings of valves and control system b)Confirmation of valve fit within existing piping arrangement. c)Confirmation of proposed means of operation – pneumatic or hydraulic. <u>General</u> a)Proof of Class approval of all proposed new hardware. b)BOM for all other proposed material supply for this item. c)The Contractor must be responsible for confirming all sizing and bolting arrangement detail for all hardware to be supplied prior to placing orders.		
15.9					
15.10	Fuel Oil Tanks				
15.11					
15.12	Compressed Air System				
15.13					
15.14					
15.15					
15.16	Lube Oil Tanks				
16.0 DOMESTIC SYSTEMS					
16.1	Domestic Water System Piping Replacement	a)Proposed pressure pump suction/discharge and aft circulating pump piping modification plan. This plan must be accepted by the TA and approved by Class prior to commencement of piping alterations. b)A complete BOM for all components of the new piping systems	a)Proposed pressure pump suction/discharge and aft circulating pump piping modification plan. This plan must be accepted by the TA and approved by Class prior to commencement of piping alterations. b)A complete BOM for all components of the new piping systems		

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1			
ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
16.2	Domestic Water System Equipment Replacement	submit details (layout, P&ID and electrical drawings and/or data specifications) of all proposed hardware supply, such as: a)Pressure Pump Units b)Pressure Tanks c)Hot Water Heater and Control Panel d)Circulating Pump Units e)Dosing Pumps f)Chlorine Analyzers g)Chlorine Injectors	submit details (layout, P&ID and electrical drawings and/or data specifications) of all proposed hardware supply, such as: a)Pressure Pump Units b)Pressure Tanks c)Hot Water Heater and Control Panel d)Circulating Pump Units e)Dosing Pumps f)Chlorine Analyzers g)Chlorine Injectors
16.3	Domestic Water Tanks	Access and Closing Plan	Access and Closing Plan (approved by class)
16.4	Sewage Treatment Plant Replacement		
16.5			
16.6	Sewage & Grey Water System Replacement		
16.7	Fridge Plant Replacement	a)Schematic diagram of the new RS b)Design calculations for the new RS c)Complete BOM for the new RS d)Detail of RS electrical, control and monitoring system and confirmation of communication capability with vessel's CCAMS. e)Individual component manufacturer technical data sheets for all components of the new RS.	a)Schematic diagram of the new RS b)Design calculations for the new RS c)Complete BOM for the new RS d)Detail of RS electrical, control and monitoring system and confirmation of communication capability with vessel's CCAMS. e)Individual component manufacturer technical data sheets for all components of the new RS.
16.8	Fridge Space Refurbishment		
16.9	Electronics Room AC Replacement	a)Schematic diagram of the new Mini-Split Air conditioning System. b)Design calculations for the new Mini-Split Air Conditioning System c)Complete BOM for the new Mini-Split Air Conditioning System d)Individual component manufacturer technical data sheets for all components of the new Mini-Split Air Conditioning System. e)Seat and hood drawings as defined in sections 3.2.1.2 through 3.2.1.5. f)Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.	a)Schematic diagram of the new Mini-Split Air conditioning System. b)Design calculations for the new Mini-Split Air Conditioning System c)Complete BOM for the new Mini-Split Air Conditioning System d)Individual component manufacturer technical data sheets for all components of the new Mini-Split Air Conditioning System. e)Seat and hood drawings as defined in sections 3.2.1.2 through 3.2.1.5. f)Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.
16.10	Incinerator Replacement & Upgrade		
16.11	Machinery Space Ventilation Maintenance	a)AIT Auxiliary Machinery Space Vent Housing Port b)AIT Auxiliary Machinery Space Vent Housing Starboard c)Fwd. Auxiliary Machinery Space Vent Louver Wave Deflector Port & Starboard d)Fwd. Auxiliary Machinery Space Supply Trunking Modification Plan approval documents must include: a)Schematic diagram of the new designs b)Complete BOM for the new designs c)Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.	a)AIT Auxiliary Machinery Space Vent Housing Port b)AIT Auxiliary Machinery Space Vent Housing Starboard c)Fwd. Auxiliary Machinery Space Vent Louver Wave Deflector Port & Starboard d)Fwd. Auxiliary Machinery Space Supply Trunking Modification Plan approval documents must include: a)Schematic diagram of the new designs b)Complete BOM for the new designs c)Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.
16.12	HVAC Systems Duct Cleaning		
16.13	Galley Air Conditioning Installation	a)Design calculations for the new mounting structures. b)Complete BOM for the new Mini-Split Air Conditioning System c)Individual component manufacturer technical data sheets for all components of the new Mini-Split Air Conditioning System. d)Mounting drawings as referenced in sections 3.2.1.2 and 3.2.1.3. e)Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.	a)Design calculations for the new mounting structures. b)Complete BOM for the new Mini-Split Air Conditioning System c)Individual component manufacturer technical data sheets for all components of the new Mini-Split Air Conditioning System. d)Mounting drawings as referenced in sections 3.2.1.2 and 3.2.1.3. e)Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.
16.14	Galley Exhaust System Maintenance		
16.15	Galley Exhaust Fan Silencer Installation	a)Schematic diagram of the new Silencer, Fan and trunking system. b)Design calculations for the new Silencer, Fan and trunking system. c)Complete BOM for the new Silencer, Fan and trunking system d)Individual component manufacturer technical data sheets for all components of the new Silencer, Fan and trunking system.	a)Schematic diagram of the new Silencer, Fan and trunking system. b)Design calculations for the new Silencer, Fan and trunking system. c)Complete BOM for the new Silencer, Fan and trunking system d)Individual component manufacturer technical data sheets for all components of the new Silencer, Fan and trunking system.
16.16	Machinery Space Fan Maintenance		
16.17	Natural Ventilation Refurbishment		

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1

ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
16.18 Steering Gear Compartment ventilation modification		a) Schematic diagram of the new Mini-Split Air conditioning System. b) Design calculations for the new Mini-Split Air Conditioning System. c) Complete BOM for the new Mini-Split Air Conditioning System. d) Individual component manufacturer technical data sheets for all components of the new Mini-Split Air Conditioning System. e) Mounting plans for the indoor and outdoor units.	a) Schematic diagram of the new Mini-Split Air conditioning System. b) Design calculations for the new Mini-Split Air Conditioning System. c) Complete BOM for the new Mini-Split Air Conditioning System. d) Individual component manufacturer technical data sheets for all components of the new Mini-Split Air Conditioning System. e) Mounting plans for the indoor and outdoor units.
16.19 Wheelhouse Ventilation System Replacement		a) Schematic diagram of the new Air Handling Unit b) Design calculations for the new Air Handling Unit c) Complete BOM for the new Air Handling Unit d) Individual component manufacturer technical data sheets for all components of the new Air Handling Unit New Design Criteria e) Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.	a) Schematic diagram of the new Air Handling Unit b) Design calculations for the new Air Handling Unit c) Complete BOM for the new Air Handling Unit d) Individual component manufacturer technical data sheets for all components of the new Air Handling Unit New Design Criteria e) Any other documentation as may be required by Class in support of Class approval of final plan for all work herein specified.
17.1 40 Ton deck Crane Replacement		17.0 DECK EQUIPMENT/SHIP SUPPORT SYSTEMS Documents to Be Submitted Within Three (3) Months After Placement of Order The following list of drawings / documents must be submitted to Canada after the ordering of the selected crane: i. Load and information charts ii. Crane foundation design included associated forces and moments iii. List of all critical components and certification(s) that these components meet both the Classification Rules and Transport Canada Marine Safety requirements, have material traceability, approved CWB welding procedures (as applicable), and non-destructive examination requirements. iv. Approved installation drawings v. Detailed approved drawings of any structure that may have to be installed as detailed in the engineering analysis and FEA report. vi. Foundation/mountings details vii. Schematic drawings of all systems i.e., hydraulic, electrical, alarm etc. viii. All relevant class approved drawings and documents. ix. Installation drawings indicating foundation details and procedures showing space constraints for withdrawal of various accessories of all the offered machinery and equipment. x. Provide a comprehensive and detailed listing (i.e., operating voltages and amperage requirements etc.) of the cranes safety alarm(s), set operating and operating points to allow for modifications to be made to the existing AMS system to accept the new I/O inputs.	Along with any finalized drawings from Preliminary. The Contractor must submit the following certificates and reports in triplicate (1 original + 2 copies) after FAT trial: a) FAT Test data duly signed by Class, b) Classification Type approval, c) Manufacturer Test Certificates
17.2 Deck Machinery Mechanical Service			
17.3 Deck Machinery Electrical			
17.4 Stern Roller Service			
17.5 Mooring Winch Installation		a) Drawings and specification detail of the proposed new mooring winches. b) Confirmation of new winch manufacturer technical, service and parts support on the East Coast of Canada. c) Specifications and detail of new winch drive motors and variable frequency drives. d) New mooring plan for the forecastle deck reflecting the new mooring winches, their integration with existing mooring hardware and any additional, new mooring hardware to facilitate application of the new winches. e) Drawings and specification for any upgraded or new mooring hardware required to accommodate application of the new winches. f) Full structural assessment report in way of the new winches and all related mooring hardware. g) Drawings of any required structural modifications to accommodate the new winches and the new mooring plan. h) Drawings of new winch seats. i) Electrical drawing package defining electrical power supply requirements and all cabling requirements for the new winch installation.	a) Drawings and specification detail of the proposed new mooring winches. b) Confirmation of new winch manufacturer technical, service and parts support on the East Coast of Canada. c) Specifications and detail of new winch drive motors and variable frequency drives. d) New mooring plan for the forecastle deck reflecting the new mooring winches, their integration with existing mooring hardware and any additional, new mooring hardware to facilitate application of the new winches. e) Drawings and specification for any upgraded or new mooring hardware required to accommodate application of the new winches. f) Full structural assessment report in way of the new winches and all related mooring hardware. g) Drawings of any required structural modifications to accommodate the new winches and the new mooring plan. h) Drawings of new winch seats. i) Electrical drawing package defining electrical power supply requirements and all cabling requirements for the new winch installation.

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1

ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
17.6	Stores Crane Replacement	a)General arrangement drawing of the proposed new crane b)Load chart for the proposed new crane. c)Full specification sheet for the proposed new crane verifying all other specified requirements are satisfied. d)Mounting detail of the proposed new crane and verification that modification of the existing seat will not be required. e)Verification that the existing seat and deck structure are of sufficient strength to carry the proposed crane. f)Electrical drawing for the proposed crane confirming existing electrical supply will not have to be upgraded.	a)General arrangement drawing of the proposed new crane b)Load chart for the proposed new crane. c)Full specification sheet for the proposed new crane verifying all other specified requirements are satisfied. d)Mounting detail of the proposed new crane and verification that modification of the existing seat will not be required. e)Verification that the existing seat and deck structure are of sufficient strength to carry the proposed crane. f)Class approval documentation for the new crane for intended application on the vessel. g)Electrical drawing for the proposed crane confirming existing electrical supply will not have to be upgraded. Manufacturer drawings of the new bollards. (may be included with 17.5 items)
17.7	Bollard Replacement		
17.8	Arches and chain inspection		
17.9	Windlass		
17.10	Chain Locker Inspection		
17.11	5 Ton Crane Inspection		
17.12	Towing Outfit	a)General arrangement drawing b)Load chart c)Full specification sheet verifying all other specified requirements are satisfied. d)Mounting detail and verification that modification of the existing structure will not be required. e)Verification that the existing seat and deck structure are of sufficient strength f)Electrical drawing confirming existing electrical supply will not have to be upgraded.	a)General arrangement drawing b)Load chart c)Full specification sheet verifying all other specified requirements are satisfied. d)Mounting detail and verification that modification of the existing structure will not be required. e)Verification that the existing seat and deck structure are of sufficient strength f)Electrical drawing confirming existing electrical supply will not have to be upgraded. g)Class approval documentation for the new crane for intended application on the vessel.
18.0 VESSEL COMMUNICATIONS & NAVIGATION			
18.1	Internal Communication System Upgrade	a)Proposed Service Provider for design and supply of the ICS. b)Make, model and manufacturer of the proposed ICS. c)Proposed ICS components and sub-components parts list. d)OEM technical information, drawings, dimensions, power consumption, heat dissipation and other specifications for proposed system hardware. e)System general arrangement and component layout plan on the vessels' General Arrangement drawings. f)Single line block diagrams with cable type identification of the system as laid out on each deck on the vessel's General Arrangement drawings. g)Overall system electrical wiring drawings for the proposed system including identification of all required power supplies. h)Cable routing drawings i)Cable list and connection and termination diagrams for the proposed system j)Preliminary, operation, installation, and service manuals for the proposed ICS. k)All other documentation required by Class to allow Class approval of the proposed ICS. Its installation on the vessel and issuance of Class approved plans for the ICS.	a)Proposed Service Provider for design and supply of the ICS. b)Make, model and manufacturer of the proposed ICS. c)Proposed ICS components and sub-components parts list. d)OEM technical information, drawings, dimensions, power consumption, heat dissipation and other specifications for proposed system hardware. e)System general arrangement and component layout plan on the vessels' General Arrangement drawings. f)Single line block diagrams with cable type identification of the system as laid out on each deck on the vessel's General Arrangement drawings. g)Overall system electrical wiring drawings for the proposed system including identification of all required power supplies. h)Cable routing drawings i)Cable list and connection and termination diagrams for the proposed system j)Preliminary, operation, installation, and service manuals for the proposed ICS. k)All other documentation required by Class to allow Class approval of the proposed ICS. Its installation on the vessel and issuance of Class approved plans for the ICS.
18.2	AIS replacement		
18.3	Auto pilot replacement		
18.4	Distance measuring system upgrade		
18.5	VHF-DF		
18.6	CCTV (Camera System)		
18.7			
18.8			
18.9	Gyro Compass		
19.0 INTEGRATED CONTROL SYSTEMS			

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1

ITEMS		PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
19.1	Propulsion Control System Upgrade	<p>a)Description of PCS system general layout and system overview.</p> <p>b)Technical information and specifications for all PCS hardware components</p> <p>c)Proof of Class approval of the hardware package proposed</p> <p>d)Drawings of all console panels, HMI and/or stand-alone instrumentation and controls detailing all hardware and its layout within the consoles.</p> <p>e)Description of all related system integration requirements and communication protocols applied.</p> <p>f)Detailed description of PCS control logic, functionality, and operational requirements demonstrating that all specified requirements are met.</p> <p>g)Electrical wiring diagrams indicating all power and communication cabling requirements, cable types and cable termination connection detail.</p> <p>h)Electric cable route layout presented over General Arrangement and/or Machinery Arrangement drawings.</p> <p>i)Description of software access, management, and security requirements.</p> <p>j)Description of remote access requirements and functionality</p> <p>k)Any other documentation as may be required for Class approval of the new PCS and the issuing of a Class Approved Plan for the new PCS installation on the vessel, acceptable to the TA.</p>	<p>a)Description of PCS system general layout and system overview.</p> <p>b)Technical information and specifications for all PCS hardware components</p> <p>c)Proof of Class approval of the hardware package proposed</p> <p>d)Drawings of all console panels, HMI and/or stand-alone instrumentation and controls detailing all hardware and its layout within the consoles.</p> <p>e)Description of all related system integration requirements and communication protocols applied.</p> <p>f)Detailed description of PCS control logic, functionality, and operational requirements demonstrating that all specified requirements are met.</p> <p>g)Electrical wiring diagrams indicating all power and communication cabling requirements, cable types and cable termination connection detail.</p> <p>h)Electric cable route layout presented over General Arrangement and/or Machinery Arrangement drawings.</p> <p>i)Description of software access, management, and security requirements.</p> <p>j)Description of remote access requirements and functionality</p> <p>k)Any other documentation as may be required for Class approval of the new PCS and the issuing of a Class Approved Plan for the new PCS installation on the vessel, acceptable to the TA.</p>
19.2	Alarm & Monitoring System Replacement	<p>a)Network topology.</p> <p>b)System block diagram.</p> <p>c)General system description</p> <p>d)Description of normal operator instructions and operator input options</p> <p>e)Identification of redundancies</p> <p>f)Electrical wiring drawings</p> <p>g)Electrical connection drawings</p> <p>h)Cable arrangement drawings identifying cable requirements, routing, and connections</p> <p>i)BOM for the complete system</p> <p>j)Confirmation of all software to be applied</p> <p>k)Description of all software operator access requirements, any operator software access restrictions and how they are managed.</p> <p>l)Complete I/O list with description of functionality at each</p> <p>m)Description of all control functions</p> <p>n)Description of Power Management philosophy to be applied, definition of functional controls and integration detail between CCAMS and all related systems</p> <p>o)Failure Modes and Effects Analysis of all control functionality of the new CCAMS and overall approach to Power Management</p> <p>p>Preliminary HMI page presentation drawings or images</p> <p>q)Any other documentation as required for system approval by Class.</p>	<p>a)Network topology.</p> <p>b)System block diagram.</p> <p>c)General system description</p> <p>d)Description of normal operator instructions and operator input options</p> <p>e)Identification of redundancies</p> <p>f)Electrical wiring drawings</p> <p>g)Electrical connection drawings</p> <p>h)Cable arrangement drawings identifying cable requirements, routing, and connections</p> <p>i)BOM for the complete system</p> <p>j)Confirmation of all software to be applied</p> <p>k)Description of all software operator access requirements, any operator software access restrictions and how they are managed.</p> <p>l)Complete I/O list with description of functionality at each</p> <p>m)Description of all control functions</p> <p>n)Description of Power Management philosophy to be applied, definition of functional controls and integration detail between CCAMS and all related systems</p> <p>o)Failure Modes and Effects Analysis of all control functionality of the new CCAMS and overall approach to Power Management</p> <p>p>Preliminary HMI page presentation drawings or images</p> <p>q)Any other documentation as required for system approval by Class.</p>
19.3			
19.4			
19.5	MCR Console Refurbishment	<p>The MCRCD =documentation package must include:</p> <p>a)MCR console layout proposal drawings based on detail of all new hardware requirements as defined in each related specification items. The final mounting and positioning of all items, equipment must be laid out on drawings, to a scale of 1:25, for review and acceptance by the CG TA.</p> <p>b)The integrated system must be arranged with sufficient redundancy and/or segregation so as to prevent loss of control, monitoring or alarm functions for multiple main functions upon a single failure.</p> <p>c)Revision and or modification of the proposed layout of consoles and the associated components, based on the inputs from Canada.</p>	<p>The MCRCD documentation package must include:</p> <p>a)MCR console layout proposal drawings based on detail of all new hardware requirements as defined in each related specification items. The final mounting and positioning of all items, equipment must be laid out on drawings, to a scale of 1:25, for review and acceptance by the CG TA.</p> <p>b)The integrated system must be arranged with sufficient redundancy and/or segregation so as to prevent loss of control, monitoring or alarm functions for multiple main functions upon a single failure.</p> <p>c)Revision and or modification of the proposed layout of consoles and the associated components, based on the inputs from Canada.</p> <p>d)Once the Design has been completed, a copy of the design report is to be provided to Canada for final verification and confirmation.</p> <p>e)The design must meet the requirements of both Class and TCMSS and the Contractor must be responsible for the development and producing of the required construction and installation drawings needed, as well as any submissions to Class (ABS) for approvals.</p>
19.6			

DESIGN REVIEW MEETINGS DELIVERABLES TABLE: REV 1		
ITEMS	PDR - Preliminary Design Review Meeting PRELIMINARY DOCUMENTS	CDR - Critical Design Review Meeting FINAL DOCUMENTS
19.7 Wheelhouse Layout & Console Rework	<p>The documentation package must include:</p> <p>a) Console layout proposal drawings based on detail of all new hardware requirements as defined in each related specification items. The final mounting and positioning of all items, equipment must be laid out on drawings, to a scale of 1:25, for review and acceptance by the CG TA.</p> <p>b) Revision and or modification of the proposed layout of consoles and the associated components, based on the inputs from Canada.</p>	<p>The documentation package must include:</p> <p>a) Console layout proposal drawings based on detail of all new hardware requirements as defined in each related specification items. The final mounting and positioning of all items, equipment must be laid out on drawings, to a scale of 1:25, for review and acceptance by the CG TA.</p> <p>b) Revision and or modification of the proposed layout of consoles and the associated components, based on the inputs from Canada.</p> <p>c) Once the Design has been completed, a copy of the design report is to be provided to Canada for final verification and confirmation.</p> <p>d) The design must meet the requirements of both Class and TCMSS and the Contractor must be responsible for the development and producing of the required construction and installation drawings needed, as well as any submissions to Class (ABS) for approvals.</p>

5. To update Annex A - Statement of Work (SOW), Part B SOW item 16.19, 3.6.2.1.

Subsequent to question ref 141 response,
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 3, SOW PART B, and in file 'Part B Section 16 – Domestic SystemsREV1'.

Under section 16.19 Wheelhouse Air Handling Unit:

- Delete (in its entirety):

3.6.2.1

- Insert (***altered or added sentences are indicated in bold italics***):

3.6.2.1. The new Air Handling Unit must be designed based on the following criteria:

- a) ***Ambient Air Temperature Wheelhouse (Max/Min Design): +28/+20° C, an adjustable range for winter and summer. Criteria: ABS Guide for CREW HABITABILITY ON SHIPS (February 2016)***
- b) ***Ambient Air Temperature Outdoor (Max/Min Design): +28/-20° C, Criteria: ABS Guide for CREW HABITABILITY ON SHIPS (February 2016)***
- c) ***Humidity 30 to 70%, Criteria: ABS Guide for CREW HABITABILITY ON SHIPS (February 2016)***
- d) Refrigerant: R410A, or equivalent.
- e) ***Cooling Capacity – to be determined by the Contractor***
- f) Air Flow – 3200 CFM
- g) Electrical Supply: 460V/3 PH/ 60Hz, 230V/3 PH/ 60Hz
- h) Heating Control Panel and PLC/HMI Control Panel
- i) All components to be marine grade as applicable
- j) Wheelhouse Approximate Volumes – 300 m³
- k) Wheelhouse Glass Area – 45 m²

6. To update Annex A - Statement of Work (SOW), Part B SOW item 17.1, 3.6.1.5.

Subsequent to question ref 147 response,
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 3, SOW PART B, and in file 'Part B Section 17 – Deck Equipment Ship Support REV1'.

Under section 17.1 Forty (40) Tonne Deck Crane Replacement:

- Delete (in its entirety):

3.6.1.5

- Insert:

3.6.1.5 Three (3) complete sets in English and three (3) complete set in French of the instruction, operation, maintenance, parts lists, and spare parts catalogs/manuals are to be provided. Documents are to be provided both in hard copy and electronically.

CCGS Terry Fox VLE - F7049-200041/B, Question and Answer Log		
Ref	Question	Answer
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. AMENDMENT 001 - Ref 1 to 3		
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 & 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"> a) forward it to me (the signed NDA) on their behalf and then, you can send them the applicable TDP drawing/document; or 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 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).

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>
12	<p>In future amendments, is it possible to combine questions and answers so that the last amendment includes all the amendments for the project?</p>
13	<p>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>
AMENDMENT 007 - Questions 1 to 21 (ref 14-34), Bidders' Conference Minutes	
14	<p>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>
15	<p>How many days will Canada take to analyse the bid (to evaluate the bid)?</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.

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.'

This is typically done near the end of the bid period (approximately 2 weeks prior to the end of the bid solicitation period).

Canada has reconsidered and is using this log (Dec 23, 2021, AMD 011)

Yes. We are going to soon release a REV 1 to the SOW.

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.

The bid evaluation period is estimated to last between one to two months

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 life-cycle 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 require 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 de-fined 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.</p> <p>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.</p> <p>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.	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.
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.	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. 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.
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. Initial Work Period , 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 (<i>the sentence in bold and italics has been modified</i>):</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. <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></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) Phase I: Financial Bid , since to the "satisfaction of Canada" is subjective and undefined, will Canada publish its Evaluation Plan? Will Canada employ a Fairness Monitor?	<p>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.</p>
41	In regards to section 4.1.2 (c) Evaluation Procedures for Proposed Equivalent Products , "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?	<p>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.</p>
42	In regards to section 4.1.6 Financial Evaluation , will revisions to the Governmental Covid protocol, post bid closing, be paid by Canada through the normal 1379 process?	<p>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.</p>
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?	<p>This requirement will not be modified.</p>

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"> 1) The first part states the requirement; and 2) The second part identifies what needs to be submitted in order to demonstrate compliance. <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 & 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>Background Question 1:</p> <p>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"> • Propulsion Machinery • Main engines, clutches, gearboxes and all associated auxiliary machinery upgrades and all associated control and monitoring systems. • Shaft Alternators Replacement and Frequency Stabilization • Switchboard Upgrades and Power Management System • Motor Control Centers Upgrade • Propulsion Control Systems Replacement • Central Control Alarm & Monitoring System Replacement • MCR Console Refurbishment <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><u>Refer to amendment 010 for detailed edits to the applicable RFP sections, including Annex P, and to the applicable SOW sections.</u></p>	<p>The SSSI is, as stated, responsible for:</p> <ul style="list-style-type: none"> • Propulsion Machinery • Main engines, clutches, gearboxes and all associated auxiliary machinery upgrades and all associated control and individual component safety and monitoring systems. • Shaft Alternators Replacement and Frequency Stabilization • Switchboard Upgrades and Power Management System • Motor Control Centers Upgrade • Propulsion Control Systems Replacement • Central Control Alarm & Monitoring System Replacement • MCR Console Refurbishment <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><u>Refer to amendment 010 for detailed edits to the applicable RFP sections, including Annex P, and to the applicable SOW sections.</u></p>
59	<p>AMENDMENT 011 - ref 59 to 76</p> <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 & 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>
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>Refer to the response given in Amendment 7 questions 3 and 6.</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>	
75	<p>The PDR/CDR deliverables tables in a number of areas include wording such as "to include, and not be limited to". 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: https://www.ic.gc.ca/eic/site/086.nsf/eng/home 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 retrofit 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, Question 3 (Q ref 10), Canada stated, "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." This is a misrepresentation of the RFI, the attached link refers: https://buyandsell.gc.ca/cds/public/2020/10/05/9f352c50a72272bee4c997de501a706f/ABES.PROD.PW__MD.B042.E27915.EBSU000.PDF.</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 (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/25#rights-of-canada), Canada reserves the right to cancel the bid solicitation at any time.</p>
80	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?	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.
AMENDMENT 013 - ref 81 to 132		
81	<p>SOW Part B 12.1 - Items 3.4.2.5 & 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>Background Question 1: 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	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?	Refer to the response given in question ref #81.

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"> •Ambient air temperature. •Air pressure and temperature going in and out of each stage of compression. •Oil pressure 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-divulgence).

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 Liquident 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	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.	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.

106	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.	No change will be required, provided the proposed equipment meets all requirements of the SOW,
107	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.	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.
108	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.	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.
109	SOW Part A - The low temperature range for the vessel is set at -35C. Is this PST, MDLT or other?	The low temperature requirement for the vessel should be considered a Polar Service Temperature (PST) of -35C.
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-divulgarion).
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	<p>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?</p>	<p>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.</p>
120	<p>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?</p>	<p>No, the cost of any options offered will not be included in evaluated price.</p>
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). 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 & 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. 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> <ul style="list-style-type: none"> a) Recovering a crew barge from either the port or starboard side of the vessel. b) Recovering a fifteen (15) tonne environmental response barge from the port side of the vessel. c) Capable of performing a man lift whilst the vessel is at sea or in harbour. <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	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?	<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 & 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 & 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 & 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	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: <u>-2030 (2020-05-28), General Conditions - Higher Complexity - Goods (section 22 is amended as noted in 7.2.1);</u>																														

	<p>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>
<p>139</p> <p>Lowest Price vs Life Cycle Cost: 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>(link: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2030/19);</p> <p>-1029 (2018-12-06) Ship Repairs; and</p> <p>(link: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/1029/5);</p> <p>-4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information</p> <p>(link: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4006/3)</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 item12.1); -Propulsion Machinery Shaft Alternators (Part B SOW item13.1); -Switchboard equipment (Part B SOW item14.2); -Motor Control Centres (Part B SOW item14.3); -Propulsion Machinery Controls System Upgrade (Part B SOW item19.1), and -Alarm and Monitoring System (Part B SOW item 19.2). AM Equipment includes: -associated AM components (Part B SOW item12.1) 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 item15.11).</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>Capacity:</p> <p>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?</p> <p>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:</p> <ul style="list-style-type: none"> -Steelwork; -Piping; -Mechanical; -Electronics; -Controls/Instrumentation. <p>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.</p> <p>Also, M7 requests anticipated Sub-contractor engagement, including a list of all subcontractors and additional details.</p> <p>Refer to M6 and M7 of Annex P (amended to rev 2 in Amendment 011) to see the entire content.</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	<p>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.</p>	<p>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.</p>
161	<p>Performance of the vessel:</p> <p>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>	<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>