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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

***** THIS DOCUMENT CONTAINS A
SECURITY REQUIREMENT *****

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

Issuing Office - Bureau de distribution
Public Works and Government Services Canada - Pacific
Region
401 - 1230 Government Street
Victoria, B. C.
V8W 3X4

Title - Sujet MV Sun Sea - Vessel Disposal	
Solicitation No. - N° de l'invitation 47419-194116/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client 47419-194116	Date 2019-05-09
GETS Reference No. - N° de référence de SEAG PW-\$XLV-211-7701	
File No. - N° de dossier XLV-8-41224 (211)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-05-31	
Time Zone Fuseau horaire Pacific Daylight Saving Time PDT	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Buchan, Torrey	Buyer Id - Id de l'acheteur xlv211
Telephone No. - N° de téléphone (250) 216-2092 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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

This solicitation amendment has been issued to address a question posed by industry, and to revise the solicitation documents.

--- Questions and Answers ---

Item	Reference to Solicitation	Question	Answer
1	Annex A, Section 3.1	<p>The Statement of Work states that based upon the pre-tow survey of the vessel that was conducted in 2016, the vessel can only be towed in the water of southern British Columbia.</p> <p>Review of the pre-tow survey determines that the surveyor submitted the report based upon the assumption that the tow would be limited to the water of Southern British Columbia, and does not provide substantiated justification for why the vessel tow is limited to the waters of southern BC.</p> <p>Can Canada advise as to the limits on towing and the reason for those towing limitations?</p>	<p>Canada has had a further Towing assessment conducted. It is available upon request of the Contracting Authority.</p> <p>Annex A is herein revised to provide further clarification of the towing restrictions.</p>

--- Changes to the Solicitation Documents ---

Item	Reference	Description of Change
1	Annex A, section 3.1	Revised section 3.1 to clarify the towing restrictions.
2	Annex N, section N2.8.2	<p>Revised the minimum Project Manager experience requirement to allow for experiential examples that are of a similar or larger scope and complexity to be considered acceptable examples.</p> <p>Text added to sections N2.8.2</p>

Find the revised Annexes A and N on the following pages.

Solicitation No. - N° de l'invitation
47419-194116/A
Client Ref. No. - N° de réf. du client
47419-194116

Amd. No. - N° de la modif.
005
File No. - N° du dossier
XLV-8-41224

Buyer ID - Id de l'acheteur
xlv211
CCC No./N° CCC - FMS No./N° VME

ANNEX "A" - STATEMENT OF WORK

CANADIAN BORDER SERVICES AGENCY

DECONSTRUCTION AND DISPOSAL OF THE

MV SUN SEA

SPEC Number: CBSA-01

Rev: 2

1. INTRODUCTION

1.1 OVERVIEW

This contract is for the Ship Breaking of the MV Sun Sea. The Contractor is to ship break the vessel in an efficient and environmentally responsible manner in accordance with Canadian Laws and the terms of this contract. Once mutilated compartment by compartment, the vessel including all contents, becomes the property of the contractor as waste. No part of the vessel or equipment must be retained by Canada. The vessel is considered destroyed once all the vessel and its content are destroyed and recycled (as applicable) as witnessed by the Technical Authority.

The Contractor must refer to Appendix 1 and be familiar with the acronyms and definitions herein.

1.2 OBJECTIVE

The Canada Border Services Agency (CBSA) currently has a requirement for the dismantling and disposal of one vessel named MV Sun Sea.

The Contractor is to prepare the vessel for transfer, transfer it to the Approved Site and dismantle (dispose/recycle) the vessel in an efficient and environmentally responsible manner that is conforming to Canadian Laws and the terms of the contract.

1.3 BACKGROUND

The MV Sun Sea was arrested in BC waters in August 2010 after having transported several hundred migrants to Canada. This vessel continues to be held at the Public Services and Procurement Canada (PSPC) Marine Base located at 100 Annacis Parkway, Delta, BC pending its final disposition.

The Government of Canada has made the determination that the MV Sun Sea must be disposed of in an environmentally sound manner, in a Canadian facility, in accordance with Canadian law.

In preparation for the Ship Breaking, the amount of Hazardous materials on board the vessel was inventoried to permit the issuance of an Inventory of Hazardous Materials (IHM). This consists of the vessel's details and the inventory of the hazardous and potentially hazardous materials on board, in accordance with Classification Society requirements. The assessment was completed in a manner set out by Classification Societies and MEPC guidelines. That report and other documentation related to the IHM is included as a reference to this SOW.

2. VESSEL PARTICULAR

2.1 SPECIFICATIONS

Name of Vessel	M.V. "Sun Sea"
IMO #	8017748
Year Built	1980
Type of Vessel	General Cargo
Builder	Matsuura Zosensho, Japan
Gross Tonnage	767
Net Tonnage	403
Length	52.4 m
Breadth	11.01 m
Depth	5.2 m
Construction	Steel

2.2 CONTROLLED WASTES

The following Controlled waste materials are present on the ship and the appropriate mitigation measures for each must be addressed by the Contractor:

- a) Mold is present throughout the vessel;
- b) Asbestos-containing materials;
- c) Metals (including lead) in paint;
- d) Heavy metals in materials (flashing, solder, anodes etc.);
- e) Polychlorinated Biphenyl (PCB)-containing materials including PCBs in paint and cabling coating, and suspected to be in ventilation gasket; light ballasts and suspect transformers;
- f) Mercury in electronic products; gauges and fluorescent lamps;
- g) Ozone depleting substances (possible);
- h) Petroleum oil and lubricant residue;
- i) Silica – boiler brickwork;
- j) Radioactive materials within equipment (e.g. smoke detectors and navigation equipment).

2.3 CERTIFICATIONS

As the vessel is out of service for an extended period of time, it should be assumed that none of the ladders, guardrails, lifting or towing points are certified.

2.4 WASTE MANAGEMENT

In preparation for the disposal of the MV Sun Sea an Inventory of Hazardous Materials has been carried out on board the vessel on January 29, 2016. All environmental samplings have been verified by a third party for completeness. The report for the vessel is included as a reference to this SOW.

Waste materials that are present on the vessel and as part of the vessels intrinsic structure include but are not limited to:

- a) Hydrocarbons, fuel and oily water
- b) Garbage
- c) Black water and grey water
- d) Paints
- e) Firefighting Equipment
- f) Refrigerants/Ozone Depleting Substances
- g) Polychlorinated Biphenyls (PCBs) containing equipment and materials
- h) Other hazardous material (including asbestos, mercury and lead)

3. CONSTRAINTS

3.1 LOCATION OF APPROVED SITE

The Contractor shall identify the location where the cleaning, salvaging /recycling work and hazardous waste disposal will be done. This location will be defined as the Approved Site encompasses all those facilities (i.e. multiple sites) where the processes occur for cutting up of the ship, handling and disposal of the hazardous waste and where the recyclable materials are recycled. An Approved Site includes:

- 1) The shipyard, dock, drydock or other facility where the ship is stripped and disassembled; and
- 2) The site or facility for the disposal of hazardous wastes or other wastes which is authorized or permitted to operate for this purpose by a relevant authority of the Canadian federal government, the Provincial government and local government in which the approved site or facility is located.

As a result of a pre-tow inspection conducted by a 3rd party marine surveyor in June 2016, and a follow-up towing assessment conducted in May 2019, it is recommended that towing of the vessel should only be carried out during good weather conditions and restricted to calm or sheltered waters. Open ocean towing should be avoided. Based upon this, towing is restricted to the western coastal waters of Canada.

"Sheltered waters" is defined to include the waters on the inside of the islands of the BC Coast, the waters of the Salish Sea, and similarly protected waters. Where no protection is offered, the tow passage must be scheduled dependent on weather forecast.

"Good weather conditions" is defined as fair weather conditions not higher than Beaufort Scale Force 3.

3.2 STANDARDS, REGULATIONS AND CODES

While not exhaustive, the following legislative, codes, standards and guidelines are to be applied where applicable to the location and conduct of this project:

- a) Environment Act of British-Columbia;
- b) Fishing and Recreational Harbours Act and Regulations;
- c) Canadian Environmental Protection Act (CEPA 1999);
- d) Canadian Environmental Assessment Act (CEEA);
- e) Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and their

Disposal Export and Import of Hazardous Waste and Hazardous Recyclable Material;

- f) Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations, CEPA 1999;
- g) Canadian Transportation of Dangerous Goods Act/Regulations;
- h) Canadian Fisheries Act;
- i) Occupational Health and Safety Act and Regulations of British-Columbia;
- j) Labour Standards Code of British-Columbia;
- k) CSA Canada Shipping Act 2001;
- l) Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships – Basel Convention 2003 (UNEP) as amended;
- m) Provincial Government, Workers' Compensation Board Municipal Statutes and Authorities;
- n) Any other Local, Municipal, Provincial and Federal Code, Standard, Regulation, Guideline, By-law or Ordinance having jurisdiction;
- o) Canada Labour Code, Part II ;
- p) Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships
- q) IMO Guidelines on Ship Recycling
- r) Clean-Up Standard for Ocean Disposal of Vessel, Environment Canada, December 2007
Clean-Up Guideline for Ocean Disposal of Vessel, Environment Canada, July 2001.

3.3 VESSEL ACCESS

The vessel is currently located at the Public Works Government Services Canada (PWGSC) Marine Base located at 100 Annacis Parkway, Delta, BC

The contractor will need to meet the occupational health and safety (OHS) regulation for accessing the vessel. (i.e. Personal Protective equipment are required). Vessel dismantling (partial or entire) at this facility is prohibited. The Contractor must transfer the ship to an Approved Site for the deconstruction. The contractor will be allowed only to remove the gangway and vessel cable for tow away purpose.

3.4 WASTE MATERIALS

In preparation for the disposal of the MV Sun Sea an Inventory of Hazardous Materials has been carried out on board the vessel on January 29, 2016. All environmental samplings have been verified by a third party for completeness. The report for the vessel is included as an appendix to this SOW.

Waste materials that are present on the vessel and as part of the vessels intrinsic structure include but are not limited to:

- i) Hydrocarbons, fuel and oily water
- j) Garbage
- k) Black water and grey water
- l) Paints

- m) Firefighting Equipment
- n) Refrigerants/Ozone Depleting Substances
- o) Polychlorinated Biphenyls (PCBs) containing equipment and materials
- p) Other hazardous material (including asbestos, mercury and lead)

3.5 REGIONAL STAKEHOLDER ENGAGEMENT

The Contractor, during the dismantling/deconstruction phase, must report periodically to local Jurisdictions, such harbor authority, municipalities, etc so that they are kept aware as to how the dismantling/deconstruction is proceeding.

3.6 PROJECT MANAGEMENT

The Contractor must have the personnel to draw upon to complete the project and must be required to implement a project management system for the duration of the contract.

4. OTHER REQUIRMENTS

4.1 OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

4.1.1 General

The Contractor must comply with the Occupational Health and Safety Laws and Regulation in force in the province of British-Columbia. Custody of the vessel direct from Canada to the Contractor will take place at the time of transfer of Care and Custody of the Vessel to the Contractor and from that point on, the Provincial Occupational Health and Safety Laws and Regulations will take precedence over the Canada Labour Code Part II. The Canada Shipping Act requirements still apply to hazardous activities on the Vessel.

A Canada representative may do periodic checks to see if the work site is in compliance with all health and safety requirements.

4.1.2 Responsibility

The Contractor must be responsible for health and safety of persons on each site, of property and for protection of persons and public circulating adjacent to work operations to the extent that they may be affected by conduct of the Work.

The Contractor must enforce compliance by all workers, subcontractors and other persons granted access to each work site with safety requirements of Contract Documents, applicable Federal, Provincial, and local statutes, regulations, and ordinances, and with the site-specific Health and Safety Plan.

4.1.3 Site Control and Access

The Contractor must:

- s) Control the work site and entry points to inspection/work areas. Maintain a log of persons entering and exiting these areas.
- t) Delineate and isolate inspection/work areas from other areas of site by use by use of means acceptable to applicable standards, norms, and regulations.

- u) Post notices and signage at entry points and at other strategic locations identifying entrance onto site to be restricted to authorized persons only.
- v) Approve and grant access to the work site only to workers and authorized persons.
- w) Immediately stop unauthorized persons from circulating in inspection/work areas and remove them from the site.
- x) Provide site safety orientation to all persons before granting access. Advise of site conditions, hazards and mandatory safety rules to be observed on site.
- y) Secure work site at night time to extent required to protect against unauthorized entry. Provide security guard where protection cannot be achieved by other means.
- z) Ensure persons granted access to site wear appropriate personal protective equipment (PPE) suitable to work and site conditions.
- aa) Provide such PPE to authorized persons who require access to perform inspections or other approved purposes.
- bb) Ensure workers and other persons granted access are trained as per Section 4.1.7 as warranted.

4.1.4 Hazard Assessments

The Contractor must implement and carry out a Health and Safety Hazard Assessment program as part of the work.

The program is to include:

- cc) The Contractor must conduct a site specific Health and Safety Hazard Assessment before commencing the project and during the course of work, identifying risks and hazards resulting from site conditions, weather conditions and work operations.
- dd) The Contractor must perform ongoing assessments addressing new risks and hazards as work progresses.
- ee) The Contractor must conduct hazard assessment when the scope of work has been changed and when potential hazard or weakness in current health and safety practices are identified by an inspector or by an authorized safety representative. Potential hazards must be identified and addressed in the project specific Health and Safety Plan.

4.1.5 Health and Safety Meetings

The Contractor must provide site safety orientation to all workers and other authorized persons prior to granting them access to the vessel. Specific occupational health and safety meetings are to be conducted by the Contractor in accordance with the Provincial Occupational Health and Safety requirements.

4.1.6 Safety Supervision and Inspections

The Contractor must designate one person to be present at the work site who is responsible for supervising health and safety of the Work. The person is to be certified and competent in Occupational

Health and Safety as defined in the Provincial Occupational Health and Safety Act. The Contractor must assign responsibility, obligation and authority to such designated person to stop work as deemed necessary for reasons of health and safety. The Contractor must conduct regularly scheduled informal safety inspections of work site, note deficiencies and remedial action taken in a log book or diary and keep inspection reports at the site.

4.1.7 Training

The Contractor must ensure that all workers and other persons granted access to each site are competently trained and knowledgeable on:

- a) Safe use of tools and equipment.
- b) How to wear and use PPE.
- c) Safe work practices and procedures to be followed in carrying out work.
- d) Site conditions and minimum safety rules to be observed on site, as given at site orientation sessions.
- e) Workplace Hazardous Materials Identification System (WHMIS) training for the applicable hazardous materials.
- f) The Health and Safety Plan (HSP)
- g) Specific hazard procedures and controls, as warranted. Eg: Asbestos worker training, Lead awareness training, and Fall Protection training.

4.1.8 Accident Reporting

The Contractor must investigate and report the following incidents and accidents:

- ff) Those as required by Provincial Occupational Safety and Health Act and Regulations.
- gg) Injury requiring medical aid as defined in the Canadian Dictionary of Safety Terms-1987, published by the Canadian Society of Safety Engineers (C.S.S.E) as follows:
 - b) Medical Aid Injury: any minor injury for which medical treatment was provided and the cost of which is covered by Workers' Compensation Board of the province in which the injury was incurred.
 - c) Property damage in excess of \$5000.00.
 - d) Those which require notification to Workers Compensation Board or other regulatory agencies as stipulated by applicable law or regulations.

The Contractor must send written reports to Canada for all above cases.

4.1.9 Site Records

The Contractor must maintain on each site a copy of all health and safety documentation and reports specified to be produced as part of the work and received from authorities having jurisdiction. The Contractor must upon request, make available to authorized safety representative, for review.

4.1.10 Non-compliance

The Contractor must immediately address and correct health and safety violations and non-compliance issues. Negligence or failure to follow occupational health and safety provisions specified in the Contract Documents and of those of applicable laws and regulations will result in corrective measures taken by the Crown against the Contractor.

4.1.11 Hazardous Products

The Contractor must comply with requirements of WHMIS. The Contractor must keep Materials Safety Data Sheets (MSDS) for all products used at the site.

4.1.12 Confined Spaces

The Contractor must:

- a) Carry out work in confined spaces in compliance with Provincial Occupational Safety and Health Regulations;
- b) Conduct hazard assessments for each confined space and address in Health and Safety Plan before entering confined space.
 - At minimum, a written confined space entry procedure, rescue procedure and air monitoring procedure for each confined space is required, as well as any other provincial regulatory requirements.
 - The written plans should consider, but not be limited to, the following elements:
 - Entry permit system
 - Isolation of energy
 - Atmospheric testing
 - Ventilation and purging
 - Hot work (e.g. welding, cutting, grinding, use of non-explosion proof electrical equipment, or any other work that could produce a source of ignition)
 - Rescue
 - Means of entering and exiting
- c) Provide and maintain equipment and PPE as required for the safety and emergency evacuation of persons entering confined spaces.
- d) Provide training to persons who will be entering the confined space, attendant personnel and rescue personnel. Training to be specialized instructions beyond (basic confined space entry information) as required to suit type and conditions of confined space and must meet applicable regulatory requirements.
- e) Where workers of more than one employer will perform work in the same confined space, prepare a co-ordination document and provide to each employer.

Any entry into confined spaces onboard the vessel during the contract period must be conducted in accordance with the Provincial Occupational Safety and Health Regulations and Canada Shipping Act 2001. Where work is done in areas such as bilge, tanks or space with no mechanical ventilation, there must be a Gas Free Certificate issued by a Marine Chemist or a person who is qualified and certified to operate the testing equipment. The Gas Free Certificate must be posted at the entrance of the compartment and must specify, "safe for persons" or "safe for hot work" as appropriate.

4.1.13 Diving Operations

Where required, the Contractor must:

- a) conduct all diving work to comply fully with the requirements of the Provincial Diving Regulations and CSA Z275.2-04, "Occupational Safety Code for Diving Operations", CSA Z275.4-02, "Competency Standards for Diving Operations" and CSA Z180.1-00, "Compressed Breathing Air and Systems." The Contractor must comply with Divisions I and II for Type 2 Dives as defined in Part XVIII of the Canada Labour Code for Diving Operations.
- b) ensure dive personnel meet the minimum competency requirements of the CSA Z275.4-02 and all divers possess a valid Category 1 Diving Certificate.
- c) ensure dive personnel have a current (less than one year) validated medical examination certificate(s) from a licensed Diving Physician in Canada (Prov. Equal) who is knowledgeable and competent in diving and hyperbolic medicine, for all dives.

4.1.14 Hot work

The Contractor must provide fire extinguishers (any other related equipment) and fire watches during any hot work and for a minimum of 30 minutes after work has stopped. Any hot work carried out onboard the vessel during the contract must be conducted in accordance with the Canada Shipping Act 2001, and applicable Provincial Acts and Regulations. Both the front (welder side) and back side of a deck or a bulkhead being cut or welded must be visually monitored continuously by the fire watches. All combustible materials must be removed from the area where the burning and welding is taking place.

4.2 HAZARDOUS MATERIALS AND MISCELLANEOUS ITEMS

4.2.1 General

Under this item, hazardous material means all materials as identified in the Hazardous Material Assessment (IHM) reports provided with the SOW, materials identified by subsequent sampling reports completed by the Contractor, all Controlled waste and/or otherwise regulated material or substances for which exposure will, or may, result in a health hazard. The IHM and any available reports are included in the Appendices of this statement of work.

The use of subcontractors for any part of the process of working with or managing Hazardous Materials does not relieve the Contractor of its responsibilities. In all matters covered by this statement of work, the Contractor must ensure, and maintain records to document, the safe and environmentally sound management of Hazardous wastes by subcontractors.

All hazardous materials must be removed from the vessel by the Contractor in accordance with applicable regulations. The hazardous materials must be containerized and transported to a facility certified by the authority having jurisdiction to dispose of these materials.

The IHM and subsequent sampling reports show the location of these products on board the vessel. Quantities and volumes of hazardous materials contained in consultant sampling reports and referenced in this document are approximate only.

The IHM is the best information available to Canada on the hazardous materials within the vessel at the time of sampling. The IHM is based on a non-intrusive survey and best marine practices estimates and as such is an estimate of quantities of materials. The Contractor must survey the vessel to identify actual quantities of hazardous materials any other hazardous material present on the vessel and must dispose of this material in accordance with federal and provincial regulations.

4.2.2 Paint

Paint on board may contain contaminants such as lead, mercury, arsenic, PCBs, and cadmium. All loose and flaky paint must be scraped off, vacuumed and disposed in accordance with applicable regulations. Paints exceeding Provincial leachate criteria must be handled as a hazardous material and in accordance with all regulations.

Painted surfaces containing concentrations of PCBs >50 mg/kg must be removed and handled and disposed as a Hazardous waste containing PCBs in accordance with Federal and Provincial regulations.

PCBs (greater than 0.05 mg/kg) contained in paint on metals for recycling at a foundry must be removed and handled accordingly. Lead (leachability greater than 5.0 mg/L) contained in paints on materials that will be disposed of at a landfill must be removed and disposed of in accordance with Provincial requirements. All hazardous materials must be handled, packaged and disposed of in accordance with applicable Provincial/Federal regulations.

4.2.3 Asbestos Containing Material (ACM):

The IHM report indicates that asbestos may be present throughout the vessel. The report, as well as subsequent sampling information, is provided and is to be used as by the Contractor as a reference only. The Contractor must remove and dispose of all asbestos in accordance with applicable Provincial/Federal regulations. As asbestos may be present on the vessels, it is the Contractor's responsibility to determine the quantity and type of asbestos containing material onboard and dispose of this material in accordance with all applicable regulations.

4.2.3 Liquid or Semi-Solid Waste

Liquid or semi-solid waste such as paste and grease containers are found at numerous locations on the vessels as per the IHM report included as an Appendix to this Statement of Work. The Contractor must dispose of all liquid or semi-solid waste containers found in the vessel in accordance with the applicable regulations.

4.2.4 Mercury and other metals

The drencher room contains a quantity of uncontrolled liquid mercury below and in behind a gauge panel located in this area. The mercury poses a risk to personnel who may spend extended period of time in this enclosed space, and as such the space has been locked and identified as containing a hazard. Contractors are to allot resources to deal with this hazardous material prior to or during the destruction of the vessel.

Mercury, lead, chromium and cadmium are found at numerous locations on the vessels as per the IHM report included as an Appendix to this Statement of Work. The Contractor must dispose of all hazardous metals found in the vessel in accordance with the applicable regulations.

4.2.5 Miscellaneous Items

The vessel contains numerous miscellaneous items of all types that were identified under the IHM report. The Contractor must remove and dispose of these items in accordance with the applicable regulations.

The Contractor must make reference to the IHM report for the identification and location of noted debris. The IHM reports are only presented as reference and it is the Contractor's responsibility to determine the quantity and types of material left on board and to dispose of these items in accordance with all applicable regulations.

4.2.6 Tracking of Hazardous and other Waste

The Contractor must maintain a database that tracks all Hazardous and other Waste from the point of transfer to Contractor Care and Custody to final disposal. In the database, for each item identified in the EA (or subsequently identified), the Contractor must:

- b) Identify the type of Waste;
- c) Identify the removal process;
- d) Identify the weight of Waste removed from the vessel;
- e) Identify the secure process for transporting the Waste from the vessel to the next location;
- f) Identify the location where the Waste is to be stored awaiting final disposal;
- g) Identify the method of secure transport used to transport the Waste to a facility certified to dispose of the Waste;
- h) Provide shipping manifest, bill of lading or tracking number for transport of Waste to the certified facility;
- i) Identify the facility disposing of the Waste and provide their certification number to dispose of the Waste identified;
- j) Provide shipping manifest, bill of lading or tracking number confirming delivery and acceptance of the Waste by the certified disposal facility;
- k) Track the delta of Waste removed from the vessel with Waste accepted at certified disposal facility. The Contractor must ensure that all Waste by weight removed from the vessel matches

the Waste by weight accepted at appropriate certified disposal facility at the completion of the Work.

The Contractor must submit to the Crown within 5 days after issuance, all copies of manifests and Transportation of Dangerous Goods sheets, showing the type/description of materials removed from the vessel for disposal. The certificate must indicate the quantity removed, any testing conducted, and the location of disposal. All Waste must be accounted for in a database by the Contractor until the vessel has been properly disposed in accordance with the Statement of Work.

5. CROWN SUPPORT

As required to perform the Work and at the discretion of the Project Authority, CBSA will endeavour to provide Contractor personnel with:

- a) Relevant internal documentation; see Appendix 1 for the Environmental Assessment, hull survey, etc.; and
- b) Access to CBSA personnel to support delivery of work.

6. REQUIRED PLANS

As part of the work required, the Contractor must provide the following plans for review and approval by the Technical Authority. Deliverable dates are indicated in section 8 of this Statement of Work.

6.1 WORK PLAN

This plan shall describe the Contractor's approach and methodology with respect to the proposed work. This plan shall, at a minimum, indicate:

- a. Location/details of Approved Site
- b. The process to move the vessel from the present location to the Approved Site. Vessel survey for towing or lift vessel/towed floating dock operation, stability considerations, towing arrangement, towing limitations, contingency plan in case of breakage of the towline, co-ordination with regulatory agencies and spill emergency response.)
- c. Details of air quality monitoring and describe the administrative controls to be used in support of the data collected. The Contractor shall provide a written procedure identifying how adequate air quality will be provided onboard the vessel and how the records will be maintained.
- d. Outline step-by-step proposed methodology for disposing of the vessel, including specific equipment needed. The description shall detail how the vessel structure will be dismantled. The description shall also indicate steps to dispose/recycle parts and materials, etc. Finally, the methodology must reference how vessel stability will be maintained and monitored during cleaning and disposal activities.

6.2 TOW PLAN- DEAD VESSEL TRANSFER

The Contractor must submit to the Crown for review a Tow Plan that details the process to move the vessel from the present location to the Contractor's Approved Site. At minimum the Tow Plan must address:

- a) Schedule and route including safe harbour;
- b) Surveys required for safe-to-tow certification/Vessel survey for towing;
- c) Vessel condition report;
- d) Towing arrangement;

Additionally the Contractor must follow the Transport Canada Marine Safety, Ship safety bulletin:

No: 06/2015- Safety of Dead Ship Towing operations

No: 13/1988 -Safety of towed ships and other floating objects

The Contractor shall obtain and pay all fees for certificates, surveyors, and pilotage authorities, deemed necessary by the applicable regulations and any insurance for any required towing operation. The Contractor shall provide to Canada, prior to moving the vessel, a voyage certificate for the intended destination from an approved surveyor stating that the vessel is safe to transport in accordance with the chosen method of transport.

6.3 ENVIRONMENTAL PROTECTION PLAN:

The Contractor must have in place an environmental management system consistent with the procedures required for the Environmental Management System ISO 14001-latest edition – Requirements published by the International Organization for Standardization (ISO). It is not the intent of this clause to require that the Contractor be registered to the applicable standard; however, the Contractor's environmental management system must address each requirement contained in the standard.

The Contractor shall develop an Environmental Protection Plan (EPP) that demonstrates the Contractor's commitment to avoidance of adverse environmental impacts through implementation of best practices rooted in pollution prevention and the promotion of sound environmental practices for the project to be undertaken. This plan shall include identification and description of the Approved Site or sites where the work will be completed and must address all of the following for each site, at minimum:

- a) Indicate the method of vessel cleaning, transportation from the work site to the disposal site, and the method of packaging and bundling.
- b) Environmental Contingency Plan – this plan shall indicate the process of how contaminants are to be contained and how to deal with situations involving petroleum product leaks in water or on the ground, ozone depleting substance leaks, or fire on the vessel or explosion. Tools and materials to be used and available on board or on the site of work for the duration of the contract shall be identified.
- c) Provide details on the process for cleaning, removal, and disposal of hazardous materials, hydrocarbon impacted areas and miscellaneous items including, but not limited to: controlled wastes, tanks, piping, engines, shafting, gearing, stern tubes, steering gear, hydraulics, bilge, areas, black and grey water, asbestos, polychlorinated biphenyls (PCBs), paint, and other hazardous materials. Also briefly include the engineering controls and personal protective equipment to be used to minimize worker exposure to hazardous materials.

The Contractor shall provide all personnel, insurance, equipment, tools, vehicles, materials, facilities, supervision and any other items and services necessary to clean, dismantle, recycle, and dispose of the

vessel and any and all Hazardous wastes.

6.4 HEALTH AND SAFETY PLAN

The Contractor must develop a written, site-specific Project Health and Safety Plan (HSP) for the Approved Site or Sites where work is to take place, based on their site specific Health and Safety Hazard Assessment Program, prior to commencement of work.

The Contractor must provide key personnel in their management organization to deal with Health and Safety related issues. The names and addresses and a 24/7 telephone number of the responsible team must be provided to the Crown. The Health and Safety Response Team (HSRT) must be instructed on how to initiate first action in the case where petroleum or hazardous discharge occurs or in which any other situation, incident or accident should occur. The Contractor must provide a revised list of names in the event of personnel changes in the HSRT.

The Contractor is responsible for the health and safety of all workers, subcontractors and other persons granted access to the work site and must provide a project specific Health and Safety Plan to the Crown in accordance with the statement of work.

The HSP must give detailed procedures on all potential project hazards including but not limited to:

- a) Work in Confined and Enclosed Space.
- b) Diving Operations.
- c) Working in close proximity to water.
- d) Scaffolds, Ladders and other aloft working surfaces.
- e) Cutting, welding and heating.
- f) Personnel Protective Equipment (PPE).
- g) Fall Protection.
- h) Gear and Equipment for rigging and handling material.
- i) Air quality measurement and log keeping.
- j) Escape route from work area and location of First Aid Station.
- k) Lead exposure control plan
- l) PCB exposure control plan.
- m) Mold exposure control plan.
- n) Mercury and heavy metals exposure control plan, and
- o) Asbestos exposure control plan.

The exposure control plans referenced in k), l), m), n) and o) should at a minimum consider the following:

-
- a) Clear delineation of responsibilities
 - b) Clearly defined hazard, its location and /or the activities which may contribute to exposure
 - c) Control methods to be used, considering all methods (engineering controls, administrative controls, personal protective equipment)
 - d) Acceptable work practices, hygiene practices and housekeeping measures
 - e) Training
 - f) Medical surveillance (where applicable)

The HSP must contain four (4) parts with following information:

Part 1 – Hazards:

List of individual health risks and safety hazards identified by hazard assessment process.

Part 2 - Safety Measures:

Engineering controls, personal protective equipment and safe work practices used to mitigate hazards and risks listed in Part 1 of Plan.

Part 3 - Emergency Response:

Detail standard operating procedures, evacuation procedures and emergency procedures in the occurrence of an accident, incident or emergency. Include response to all hazards listed in Part 1 of Plan. Evacuation measures to complement the Facility's existing Emergency Response and Evacuation Plan should one exist.

List names and telephone numbers of officials to contact including:

- Contractor and all Subcontractors.
- Federal and Provincial Departments as stipulated by laws and regulations of authorities having jurisdiction and local emergency resource organizations, as needed based on nature of emergency.
- Officials from Canada as provided.

Part 4 – HSP Site Communications

Procedures used on site to share work related safety issues between workers, subcontractors, and General Contractor.

The Contractor must prepare the HSP in a three-column format, addressing the three parts specified above, as follows:

Column 1	Column 2	Column 3
----------	----------	----------

Part 1	Part 2	Part 3a/3b
Identified Hazard	Control Measures	Emergency Measures & Implemented Communications

The Contractor must develop the HSP in collaboration with subcontractors. The HSP must address work activities of all trades.

The Contractor must revise and update the HSP as required.

The Contractor must implement and enforce compliance with requirements of the HSP for entire duration of work to completion.

As work progresses, the Contractor must review and update the HSP to address additional health risks and safety hazards identified by ongoing hazard assessments.

The Contractor must post copy of the HSP and all updates at the site.

Note:

Submission of the HSP and any subsequent updates to Canada is for review and information purposes only. Canada's receipt and review, including any comments made on the HSP must not be construed to imply approval in part, or in whole, of the HSP by Canada and must not be interpreted as a warranty of the HSP being complete and accurate, or as a confirmation that all health and safety requirements of the work has been addressed or that the HSP is legislatively compliant. Furthermore, Canada's review of the HSP must not relieve the Contractor of any of his/her legal obligations for Occupational Health and Safety provisions specified as part of the Work and those required by provincial legislation or those which would otherwise be applicable to the site of the work.

6.4.1 Inorganic lead exposure control plan

The Contractor must:

- p) Conduct a risk assessment of the worksite and activities. The assessment must be conducted by a person qualified in inorganic lead removal activities,
- q) Implement a lead exposure control plan in accordance with Provincial Occupational Safety and Health Regulations for workers that are exposed to lead.
- r) The plan should account for a means to wash / decontaminate skin and work clothes prior to leaving the work site.

6.4.2 Polychlorinated biphenyl (PCB) exposure control plan

The Contractor must:

- s) Conduct a risk assessment of the worksite and activities. The assessment must be conducted by a person qualified in PCB removal activities,
- t) Implement a PCB exposure control plan in accordance with Provincial Occupational Safety and

Health Regulations for workers that are exposed to PCBs.

6.4.3 Indoor air quality and mold exposure control plan

The Contractor must:

- u) Conduct a risk assessment of the worksite and activities. The assessment must be conducted by a person qualified in indoor air quality and mold removal activities,
- v) Implement an indoor air quality and a mold exposure control plan in accordance with Provincial Occupational Safety and Health Regulations for workers that are exposed to poor air quality and/or mold;

6.4.5 Mercury and heavy metals exposure control plan

The Contractor must:

- w) Conduct a risk assessment of the worksite and activities. The assessment must be conducted by a person qualified in mercury / heavy metals removal activities,
- x) Implement a mercury and heavy metals exposure control plan in accordance with Provincial Occupational Safety and Health Regulations for workers that may be exposed to mercury or heavy metals;

6.4.6 Asbestos exposure control plan

The Contractor must:

- y) Conduct a risk assessment of the worksite and activities. The assessment must be conducted by a person qualified in asbestos abatement activities,
- z) Implement an asbestos exposure control plan in accordance with Provincial Occupational Safety and Health Regulations for workers that may be exposed to asbestos.

7. CONDUCT OF WORK

7.1 SHIPBREAKING

7.1.1 General

The Contractor will assume all expenses in relation to the work described in this statement of work and will be responsible for any item's cost of cleaning and removing as defined in this statement of work.

Canada shall supply any available technical documents and drawings related to the vessel.

The Contractor will be required to be the Recyclable Owner and Waste Owner. The ownership of all Recyclable Materials and Waste will be passed directly from CBSA to the Contractor upon awarding of the contract

The vessel shall not be sold to a broker and shall be disposed/recycled in accordance with the intent of this statement of work.

7.1.2 Salvage / Recycling

All Hazardous material, Hazardous waste, Waste, debris and hydrocarbon-based fluid must be removed from the vessel and disposed of in accordance with provincial and federal regulations. All structural components above the main deck, from the main deck to the keel and all equipment, machinery and other components installed on or contained in the structure must be cleaned, removed, recycled, reused and / or disposed of in accordance with applicable regulations.

Canada assumes no responsibility for the quality or quantity of any material to be removed under this project. Any assumptions made regarding the salvage value of any and all materials under this contract are by the Contractor only. All estimates of quality and quantity of salvaged materials are to be made by the Contractor. No consideration for payment will be made to the Contractor as a result of the Contractor receiving less than assumed salvage value of any materials. The Contractor is free to take its own samples of material onboard the vessel during the arranged site visit for the purpose of determining the quality and quantity of Waste onboard.

The vessel must not be sold to a broker and must be disposed/recycled in accordance with the intent of this statement of work.

The Contractor must consult with the Provincial Department of Environment and Conservation on whether proposed salvage activities require registration under the Provincial Environmental Assessment Regulations. Should the project require registration and an environmental assessment, the Contractor must include the appropriate timeline for project release from the Province in the schedule prior to start of the work.

7.1.3 Detail records

The Contractor must keep and maintain detailed records of quantities of, and revenues received from the sale of scrap metals and other materials and provide them to the Technical Authority.

7.2 SPECIFICATION OF WORK

7.2.1 Personnel

The Contractor must provide all personnel, insurance, equipment, tools, vehicles, materials, facilities, supervision and any other items and services necessary to clean, dismantle, recycle, and dispose of the vessel and any and all Hazardous wastes.

7.2.2 Trim and Stability

The Contractor will be solely responsible to ensure the stability of the vessel at all times during the work. The Contractor must have on staff or subcontract the service of a Naval Architect; registered to practice, as a Professional Engineer, to verify and confirm the vessel stability during the Ship Breaking operation should this work be done while the vessel is afloat. The Naval Architect must approve significant changes to the Management Plan, such as an unscheduled movement or removal of weights from the vessel.

7.2.3 Hazardous Wastes

The Contractor must provide all WHMIS MSDS for any material furnished by the Contractor during the course of the work of the contract. The Contractor must submit to Canada within 5 days after issuance, all copies of manifests and Transportation of Dangerous Goods sheets, showing the type/description of materials removed from the vessel for disposal. The certificate must indicate the quantity removed, any testing conducted, and the location of disposal. All Waste must be accounted for in a database by the Contractor until the vessel has been properly disposed in accordance with the Statement of Work.

7.2.4 Ownership

Any equipment removed from the vessel must become the property of the Contractor except as specifically identified prior to contract award.

The Contractor must pay for all federal, provincial and municipal taxes and dumping fees (tipping fees) at the municipal / regional landfill, PCB disposal facility and controlled waste handling and disposal facilities during the course of this project.

7.2.5 Regulatory

In addition to various provincial and federal regulations regarding hazardous materials, the Contractor must comply with all directives and requirements issued by the provincial departments regarding the removal, transport, placement and disposal of hazardous materials for various locations, including:

- The disposal of hazardous materials in appropriate waste containers.
- The transport of hazardous materials to an Approved Site.
- Any and all requirements, which may exist regarding notifications of the presence of hazardous materials.
- The asbestos work must be done by a registered asbestos abatement contractor.
- Disposal of PCBs must be via incineration conducted by a registered PCB disposal contractor.
- The requirements for training of Contractor's personnel conducting the hazardous materials abatement work.

7.2.6 Salvage/Recycle

The Contractor must remove all liquid from bilges, tanks and receivers and dispose of this material according to all appropriate regulations for the jurisdiction under which the Contractor operates. Hazardous materials identified in the statement of work must be removed and dispose of this material according to all appropriate regulations for the jurisdiction under which the Contractor operates. The remaining asset must be cleaned and dismantled, recycled or disposed of in accordance with the requirements of the Statement of Work. Ballast onboard and any used by the contractor in the transfer and stabilisation of the vessel must be disposed of in accordance with the overall objectives of this project. . It is the responsibility of the Contractor to dispose of all liquid Waste removed from the vessel.

It is the Contractor's sole responsibility for determining the value of all salvageable portions of the vessel, including but not limited to: steel, main engine, generator, pumps, valves, pipes, hatches, portholes, furniture, winches, ropes, chains, anchors, cable wiring, etc.

7.2.7 Dismantling sequence and stability

The Contractor must include in the scope of work, all considerations for the impact on the overall vessel stability due to the removal of engines, equipment or structural steel sections from the vessel. Therefore, and because of the nature of this work, the Contractor must identify in the Management Plan in Section 6, the sequence in which the dismantling work will occur. The Contractor must indicate in the Master Work Schedule the Dismantling Timeline of the vessel structure to indicate the sequence in which major vessel structure and equipment are being removed until completion of this item.

7.2.8 Berthing, Mooring, and Docking

The Contractor is responsible for maintaining all material and labour required for handling, berthing, mooring and dry-docking (if applicable) for the vessel.

The Contractor must berth and moor the vessel for the duration of the contract period. Canada and the Inspection Authority must have unrestricted access to the vessel at all times under the supervision of the Contractor for Health and Safety reasons.

The location of the vessel for the duration of the contract must be at an Approved Site for the type of work intended and must be in accordance with federal, provincial and/or municipal requirements.

The Contractor shall supply all mooring lines and labour required in transfer, berthing, mooring, and casting off for the vessel.

7.2.9 Services

The Contractor must supply and erect two gangways complete with safety nets for the vessel in compliance with the Canada Labour Code and any Local, Municipal, Provincial Codes, Standards, or Regulations while the vessel is on the blocks or alongside the Contractor's place of work. There must be two separate and independent means of accessing the vessel at all times. The gangways must be lighted during the work period after daylight. The Contractor must be responsible for the safety of the gangways.

The Contractor must provide fire protection in accordance with applicable Acts and Regulations for the duration of the contract while workers are on board the vessel.

7.2.10 Bilge and Compartment Cleaning

The bilge area is defined as the interior skin in all compartments under the deck plate, any liquid in the bige area must be assumed to be contaminated with hydrocarbon and classified as oily bilge waste water. The Contractor must remove all bilge oily wastewater from the vessel and dispose of it in accordance with the applicable laws and regulations.

The Contractor must be responsible for the removal and disposal of oily water from bilge area within the vessel.

7.2.11 Ballast tanks and void Spaces

Ballast tanks, void spaces and pipe tunnels were not designed to carry or contain any hydrocarbon based fluid but these spaces are required to be emptied of their contents.

The tanks may contain liquid, therefore the Contractor must follow all confined space safety requirements and exercise caution while emptying the remaining liquid ashore and assure that it meets applicable disposal regulations.

Please note that some of the ballast tanks have been used for sewage tanks during the vessel transit to Canada. Contractor are to consider these tanks as sewage tanks accordingly.

If any of the tanks are found to contain hydrocarbon based fluid then these tanks must be dealt with in accordance with applicable disposal regulations.

7.2.12 Diesel Oil Tanks and Oil Tanks

The vessel is fitted with diesel oil and oil tanks. Fluid remaining in all tanks must be removed ashore and disposed of in accordance with applicable disposal regulations.

The Contractor must open all the tanks and remove the remaining diesel oil, oil or wastewater. Different fluid types must not be mixed to reduce disposal cost.

The Contractor must remove and dispose all oil contained elsewhere on the vessel including within engines, gearboxes, piping, equipment, controllable pitch systems, vessel main shafting, and any and all storage containers.

7.2.13 Black and Grey water Systems and tanks

The Contractor must pump out the black and grey water systems and dispose of the fluid ashore in accordance with applicable disposal regulations.

The Contractor must open all the tanks and remove the remaining black and grey water from the vessel black and grey water system and associated tanks.

7.3 PROJECT SCHEDULE

The project must have a Master Work schedule which is the schedule for the entire project. The Master Work schedule will include all tasks required for vessel disposal including; schedule milestones, deliverables, all subcontract work and activities, preparation for transporting the vessel, transporting the vessel, initial surveys, inspections, identification and safe removal and disposal of hazardous materials, dismantling and salvage.

The schedule shall be in tabular format with a Gantt chart and shall include:

- a) Original duration in calendar days. (baseline)
- b) Remaining duration.
- c) Percentage completed.
- d) Original and revised start and finish date for each task in relation to all work identified under this statement of work.

The schedule shall be updated to reflect the work progression every month until the completion of all tasks.

8. DELIVERABLES

The Contractor must produce the following deliverables:

No. SOW	Deliverable	Format	Due Date
6.1	Work Plan	Electronic format or hard copies	Preliminary in Bid No more than 30 calendar days after contract award.
6.2	Towing Plan	Electronic format or hard copies	Preliminary in Bid No more than 30 calendar days after contract award.
6.3	Environmental Protection Plan	Electronic format or Hard Copies	Preliminary in Bid No more than 30 calendar days after contract award.
6.4	Health and Safety Plan	Electronic format or Hard Copies	Preliminary in Bid No more than 30 calendar days after contract award.
7.3	Project Schedule	Gantt Chart , Electronic format	Preliminary in Bid No more than 30 calendar days after contract award.
4.2.6	Tracking of hazardous and other waste	Electronic format or hard copies	Ongoing - within 5 days of action

Solicitation No. - N° de l'invitation
47419-194116/A
Client Ref. No. - N° de réf. du client
47419-194116

Amd. No. - N° de la modif.
005
File No. - N° du dossier
XLV-8-41224

Buyer ID - Id de l'acheteur
xlv211
CCC No./N° CCC - FMS No./N° VME

4.1.12, 6.2, 7.2.3 and 10	Certificates	Electronic format or hard copies	Upon completion
7.1.3	Detail record	Electronic format or hard copies	Upon completion

9. PERIOD OF WORK / SCHEDULE

The Contractor must prepare and transfer the vessel to the Contractor's deconstruction site within 30 days of receiving the approval on the Work plan, Towing plan, Environmental protection plan and the Health and Safety Plan being approved.

10. PROJECT COMPLETION

The work will be considered complete when the following has occurred:

- a) All hazardous and/or controlled material is removed and has arrived at an approved Hazardous waste disposal facility for final disposal. Shipping certification and receipt of arrival must be accounted for. Final individual weights for all hazardous materials must be itemized. Disposal certification must be provided for hazardous material.
- b) The vessel hull and structure has been broken up into sections with all internal equipment witnessed, including all onboard stores, as witnessed by representative of Canada.
- c) Completion of the Vessel Disposal Certificate.

APPENDIX 1 to ANNEX A - REFERENCE DOCUMENTS

The following reference documents are available by request of the Contracting Authority:

3GA M.V. "Sun Sea" Inventory of Hazardous Materials Report;

M/V "Sun Sea" Pre-Tow Inspection

APPENDIX 2 to ANNEX A - ACRONYMS AND DEFINITION

1. Acronyms

aa)	ACM	Asbestos Containing Materials
bb)	HSP	Health and Safety Plan
cc)	HSRT	Health and Safety Response Team
dd)	IA	Inspection Authority
ee)	MSDS	Materials Safety Data Sheet
ff)	OH&S	Occupational Health and Safety
gg)	PCB	Polychlorinated Biphenyls
hh)	PSPC	Public Services and Procurement Canada
ii)	WHMIS	Workplace Hazardous Materials Identification System
jj)	CBSA	Canada Border Services Agency

2. Definitions

“Approved Site” is any site or facility where the processes occur for cutting up the vessel, handling and disposal of the Hazardous waste and where the recycled materials are recycled. It includes a shipyard, dock, dry-dock or other facility where a vessel is stripped and disassembled, and facilities or sites for the disposal of Hazardous wastes or other wastes which are authorized or permitted to operate for this purpose by a relevant authority of the province where the site or facility is located.

“Contractor” is the legal entity that will contract with Canada to undertake the work.

“Controlled waste” is as defined by the laws of the jurisdiction of the waste generator, handling facilities and disposal facilities. Controlled wastes are those wastes to which regulations of the jurisdiction having authority apply. This includes the Canadian federal government, the provincial governments in which the Approved Site reside, the local governments in which the Approved Site reside, as well as international conventions that have been adopted by the Government of Canada. Controlled wastes include Hazardous wastes, non-hazardous, regulated wastes (such as asbestos-containing materials), Recyclable materials and non-hazardous, unregulated wastes.

“Destruction” is an action that renders an item unusable for its intended or strategic purpose and that is irreversible.

“Hazardous waste” is defined by the regulations of the government having jurisdiction at the Approved Site as defined above.

Solicitation No. - N° de l'invitation
47419-194116/A
Client Ref. No. - N° de réf. du client
47419-194116

Amd. No. - N° de la modif.
005
File No. - N° du dossier
XLV-8-41224

Buyer ID - Id de l'acheteur
xlw211
CCC No./N° CCC - FMS No./N° VME

“Hazardous material” is any material that may pose a hazard to workers during the work.

“Recyclable material” is any material that is intended for reuse or recovery for reuse, and includes scrap and waste materials other than accountable material, derived from the Contract.

“Recyclable Owner” of all Recyclable material is the Contractor, unless the Recyclable material is considered to be Museum material.

“Ship Breaking” is defined as the process of systematically scrapping the entire infrastructure of an obsolete vessel by dismantling and disposing or recycling of all its component parts and hazardous materials.

“Waste” means any material that requires disposal but is not a Hazardous waste as defined by the jurisdiction at the location of the Approved Site.

“Waste Owner” The Contractor is the Waste Owner after ownership of the waste is passed to the Contractor direct from CBSA to the Contractor upon Contract Award.

ANNEX "N" – TECHNICAL EVALUATION PLAN

N.1 Technical Bid Preparation

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

The Bidder must demonstrate to the satisfaction of Canada, that it or its Subcontractor(s), meet each of the mandatory criteria by providing substantial information to describe completely and in detail how the requirement is met or addressed. The elements submitted in response to this RFP will be mandatory deliverables required for contract award and will be required to remain in place for the complete duration of the contract that may result from this solicitation process.

N1.1 Technical Bid Scoring Scheme for Point Rated Criteria

The following table provides a description of the scheme used to score each Point Rated criterion;

Note for the purpose of technical evaluation, the bidder can utilize the details of its proposed subcontractor(s) in order to satisfy the requirements the criteria.

Points	Rating level
0	Unsatisfactory; No details provided of how the Bidder and/or its proposed Subcontractor(s) meets the criterion; and/or No examples provided (where applicable to the criterion)
1	Incomplete or limited explanation of how the Bidder and/or its proposed Subcontractor(s) meets the criterion; Response is inadequate in certain areas. Response would likely be ineffective in this aspect. and/or One experiential example provided with insufficient detail (where applicable to the criterion)
2	Poor explanation of how the Bidder and/or its proposed Subcontractor(s) meets the criterion; and/or One experiential example provided with minimal details (where applicable to the criterion)
3	Acceptable and adequate explanation of how the Bidder and/or its proposed Subcontractor(s) meets the criterion; Overall, response is sufficient. Response demonstrates some weaknesses but none of major significance. and/or One experiential example provided with sufficient detail (where applicable to the criterion)
4	Good explanation of how the Bidder and/or its proposed Subcontractor(s) meets the criterion; Response is without any significant exceptions, complete. and/or

	Multiple experiential examples provided with sufficient detail (where applicable to the criterion)
5	Excellent and in-depth and specific explanation of how the Bidder and/or its proposed Subcontractor(s) meets the criterion; Response demonstrates no weaknesses. and/or Multiple experiential examples provided in great detail (where applicable to the criterion)

N.2 Technical Evaluation Criteria

N.2.1 Ship Breaking Experience

Ship Breaking is defined as the process of systematically scrapping the entire infrastructure of an obsolete vessel by dismantling and disposing or recycling of all its component parts and hazardous materials.

The Bidder must demonstrate their experience and understanding of Ship Breaking by:

- 1) Describing in writing their experience in Ship Breaking projects of similar or larger size and complexity to the MV Sun Sea which have been completed since March 15, 2009; and by
- 2) Providing a disposal plan for a Ship Breaking project completed since March 15, 2009. The disposal plan should have included, at minimum, 5 of the following elements:
 - a. Sequencing Plan: Detailing the sequencing plan for sectional/compartmental Ship Breaking (dismantling and disposal or recycling) of the entire vessel. Detail must include the timelines from arrival to the demolition site to project completion;
 - b. Use of Subcontractors: Describe all of the work that was completed by subcontractors;
 - c. Conditions Monitoring Procedures: Describe the processes that were in place for monitoring conditions as they related to worker safety and procedures used for addressing and rectifying identified issues (i.e., air quality monitoring, ventilation procedures, fire and first aid procedures);
 - d. Hazardous Materials: Describe the procedures and control plans used, including how and where the materials were disposed or recycled;
 - e. Permits and Record keeping: describe the process for attaining the appropriate permits and describe the record keeping processes that were in place; and
 - f. Destruction of Metals: Detail the processes and equipment used for the dismantling and disposal or recycling of metals.

N.2.2 Dead Ship Transfer and Towing Experience

Dead Ship Condition is defined as the condition under which the main propulsion plant, boilers and auxiliaries of the vessel are not in operation due to the absence of electrical power.

The Bidder must demonstrate its experience and understanding of towing vessel(s) in a Dead Ship Condition by providing a list of projects completed since March 15, 2009. The examples must be of tows of vessels of a similar or larger size as the MV Sun Sea, a similar or longer tow distance and similar or more complex tow route in comparison to the proposed tow of the MV Sun Sea to its Approved Site(s) for Ship Breaking.

For each project listed, the Bidder should include, at minimum, the following:

-
- a. Ship's Principal Dimensions;
 - b. Description of the Ship's condition at time of tow; and
 - c. Tow distance and route. Route description must include a detailed description of the process followed for navigation through any controlled waterways or canal systems, including co-ordination with regulatory agencies.

N.2.3 Environmental Handling Experience

The Bidder must demonstrate its experience in the handling and disposal of Hazardous Wastes, and describe its environmental management system as details in the subsections below.

N.2.3.1 Environmental Management Systems

The Contractor must have in place an environmental management system consistent with the procedures required for the Environmental Management System ISO 14001-latest edition – Requirements published by the International Organization for Standardization (ISO). It is not the intent of this clause to require that the Contractor be registered to the applicable standard; however, the Contractor's environmental management system should address each requirement contained in the standard.

The Bidder must describe the environmental management system, modeled on ISO 14001, that it has in place at its Approved Site(s).

N.2.3.2 Disposal of Hazardous Wastes

The Bidder must provide at least one example of a project that required the handling and disposal of Hazardous Wastes and Materials that has been completed since March 15, 2009. The Bidder should demonstrate in the example(s) provided that the project required handling and disposal of, at minimum, 4 of the following elements:

- a. Asbestos-containing materials;
- b. Metals (including lead) in paint;
- c. Heavy metals in materials (flashing, solder, anodes etc.);
- d. Polychlorinated Biphenyl (PCB)- containing materials;
- e. Mercury in electronic products;
- f. Ozone depleting substances;
- g. Petroleum oil and lubricant residue and residual;
- h. Sewage

N.2.4 Facilities

The Bidder must provide evidence that it has access to appropriate facilities to complete the Work detailed in **Annex "A" - Statement of Work** by providing evidence of the suitability of its facilities as defined in the subsections below.

N.2.4.1 Temporary facilities

As applicable, the Bidder should provide a complete description of the temporary storage, unloading or work facility to be used after the transfer of Care and Custody of the MV Sun Sea to the Contractor at 100 Annacis Parkway, Delta, B.C. and prior to towing the vessel to the Bidder's Approved Site for Ship Breaking. The description and layout must include, at minimum, the following:

-
- a. Site map;
 - b. Vessel berthing and staging areas including keel clearances capable of accommodating the MV Sun Sea at the ship's anticipated condition and draft;
 - c. Dismantling area;
 - d. Material holding area;
 - e. Hazardous Materials storage area;
 - f. Controlled Goods storage area;
 - g. Contractor's project office; and
 - h. Canada's project office at the Contractor's Approved Site

N.2.4.2 Approved Shipbreaking Site

The Bidder must provide the details of the Approved Site for Ship Breaking.

The Bidder should provide a complete description and layout of the Bidder's Approved Site for Ship Breaking including, at minimum, the following:

- a. Site map;
- b. Vessel berthing and staging areas including keel clearances capable of accommodating the MV Sun Sea at the ship's anticipated condition;
- c. Dismantling area;
- d. Material holding area;
- e. Hazardous Materials storage area;
- f. Controlled Goods storage area;
- g. Contractor's project office; and
- h. Canada's project office at the Contractor's Approved Site

The Bidder must identify in its bid where it intends to utilize an along-side area and / or dry-dock / Haul out facility for the Ship Breaking of the MV Sun Sea.

N.2.4.3 Facilities – Along-side

If the Bidder proposes utilizing an along-side area (not applicable to dry dock operations) as part of the Ship Breaking project, the Bidder must:

Provide evidence in the form of a signed statement to certify that the Bidder has uninterrupted access to the along-side area/facility for the entirety of the project in accordance with the Bidder's anticipated schedule.

N.2.4.4 Facilities – Dry Dock / Haul Out

If the Bidder proposes utilizing a dry dock (not applicable to along-side operations) as part of the Ship Breaking project, the Bidder must:

Provide evidence in the form of a signed statement to certify that the Bidder has uninterrupted access to the dry dock for the entirety of the project in accordance with the Bidder's anticipated schedule.

- a. Demonstrate that the dry dock is certified and capable of accommodating the MV Sun at the expected conditions during the anticipated Ship Breaking period; and
- b. Specify the dry dock certification validity period and indicate subsequent inspection schedules.

IMPORTANT NOTICE:

Although a dry docking facility may have a total capacity greater than the vessel to be docked, the weight distribution of the vessel may cause individual block loading to be exceeded. Also, while the physical dimensions of a dry docking facility may indicate acceptability for docking of a specific vessel, other limitations such as spacing of rails on a marine railway, concrete piers of abutments adjoining the dry dock may preclude the facility from being considered as a possible dry docking site and render a facility inadequate. Consequently, it is recommended that companies exercise due diligence in order to ensure that their facilities will be adequate to dry-dock the MV Sun Sea.

N.2.4.5 Permits, Licenses and Certifications for Ship Breaking

The Bidder must demonstrate they are permitted to conduct Ship Breaking operations at their approved site by providing copies of all federal/ provincial/ municipal permits and licensing to conduct Ship Breaking at their Approved Site for Ship Breaking.

This includes any site-specific permits, licenses, and/or certificates that are in effect or obtained prior to the start of Ship Breaking, including any authorization from a landowner, port or other entity granting authorization to use the facility for Ship Breaking purposes.

N.2.4.6 Permits, licenses and certifications for Hazardous Materials handling

For each of the Hazardous Materials listed in the Inventory of Hazardous Materials (IHM), the Bidder must demonstrate they are permitted to conduct Hazardous Materials handling, transport, treatment, storage and disposal by providing copies of all federal/ provincial/ municipal permits and licensing to conduct handling, transport (from Bidder's Approved Site to HazMat disposal site), treatment, storage and disposal for each of the Hazardous Materials listed in the IHM their Approved Site(s).

This includes any site-specific permits, licenses, and/or certificates.

N.2.4.7 Subcontracted Facilities Letter of Agreement

Where the Bidder will be using Subcontractor owned facilities, the Bidder must provide evidence in the form of a letter, signed by an authorized representative of the proposed Subcontractor, indicating that the Subcontractor has agreed to make the facility available to the Bidder during the anticipated Work Period and in accordance with the Bidder's Preliminary Schedule.

N.2.5 Subcontractor - List

If the Bidder intends to use Subcontractors to perform any part of the Work, the Bidder must provide a list of all Subcontractors.

For each subcontractor listed, the Bidder should include the following:

- a. A description of the work to be performed;
- b. The location of the performance of subcontractor work; and
- c. Provide evidence in the form of a letter, signed by an authorized representative of the proposed Subcontractor, indicating that the Subcontractor has agreed to perform the Work identified during the anticipated Work Period and in accordance with the Bidder's Preliminary Schedule and – the required Work Period.

N.2.6 Project Plan

The Bidder must provide a Project Plan that describes the Bidder's approach and methodology for the Work required in Annex "A" - Statement of Work. The plan should:

- 1) Indicate the process to move the vessel from 100 Annacis Parkway, Delta, B.C. to the Bidder's Approved Site for Ship Breaking. For the MV Sun Sea, the Bidder must:

- a. Indicate if the vessel will be moved to temporary storage, unloading or work facility prior to being moved to the Bidder's Approved Site for Ship Breaking; and
- b. Describe all work that will take place at the temporary storage, unloading or work facility.

NOTE: Canada will only allow work to be completed at 100 Annacis Parkway, Delta, B.C. which is required to prepare the vessel for a towing certificate, as required by the Contractor's underwriter's surveyor.

- 2) Provide a draft tow plan **for each leg of the tow** to move the vessel from 100 Annacis Parkway, Delta, B.C. to the Bidder's Approved Site for Ship Breaking by providing a draft tow plan for that demonstrates how the Bidder will address each of the following, and considering information contained in the "MV Sun Sea Pre-Tow Inspection Report":
 - a. Pre-tow preparation;
 - b. Anticipated schedule and route including safe harbor;
 - c. Surveys required for safe-to-tow certification/Vessel survey for towing;
 - d. Vessel condition report;
 - e. Towing arrangement;
 - f. Towing limitations;
 - g. Anticipated draft;
 - h. Chart datum to provide evidence that the chosen route maintains necessary keel clearance at the ship's anticipated draft;
 - i. Stability considerations; including certification of a Naval Architect to attest that the vessel is in a stable and safe condition for the tow.
 - j. Emergency Preparedness Response;
 - k. Oil Pollution Response Plan/Spill Emergency Response Plan;
 - l. Contingency plan in case of breakage of the towline;
 - m. Flood monitoring for vessel when undertow and response plan; and
 - n. Co-ordination with regulatory agencies.
- 3) Outline step-by-step proposed methodology for disposing of the vessel, including specific equipment needed. The description must detail how the vessel structure will be dismantled. The description must also reference how vessel stability will be maintained and monitored during cleaning and disposal activities.
- 4) Provide details of air quality monitoring onboard the ship during dismantling operations, including a description of the administrative controls to be used in support of the data collected. The Bidder must provide a written procedure identifying how adequate air quality will be provided onboard the vessel and how the records will be maintained.
- 5) Provide details on the process for the removal and destruction of Hazardous Wastes onboard the ship. Bidders must address each of the Hazardous Wastes identified in the IHM provided for the MV Sun Sea. Details for the methods of tracking, transport and destruction of the Hazardous Wastes identified in the IHM for the MV Sun Sea must be included.

N.2.7 Preliminary Project Schedule

The Bidder must prepare a Preliminary Schedule in MS Project format or equivalent that clearly follows a work breakdown structure of the activities described in the Project Plan.

The Preliminary Project Schedule should indicate the sequence and the completion dates of major project milestones, deliverables, and project tasks based on a contract award as "day 0."

The Preliminary Project Schedule must, at minimum, identify all milestones listed in **Annex "B" - Basis of Payment and Milestone Payment Plan and be in accordance with the required Work Period.**

The Contractor must prepare and transfer the vessel to the Contractor's deconstruction site within 30 days of receiving the approval on the Final Work Plan, Towing Plan, Environmental Protection Plan and the Health and Safety Plan.

N.2.8 Project Management Services

The Bidder must provide the details of the project management services that will form part of their proposal.

N.2.8.1 Project Resources

The Bidder must provide evidence of its management organization by providing a recent organizational chart that identifies the following management functions and responsible personnel intended on being assigned to this project;

- a. Production Manager
- b. Quality Control Manager
- c. Risk Manager
- d. Planner/Estimator
- e. Health and Safety Manager
- f. On site Supervisor

The Bidder should provide the names, brief resumes, and a list of duties for each of the resources to be allocated to this project to demonstrate that each of the project management functions listed above are met.

N.2.8.2 Project Manager

The Bidder must demonstrate that the proposed Project Manager has completed a minimum of one Ship Breaking project since March 15, 2009 similar or larger in scope and complexity to this requirement.

N.2.9 Health and Safety

The Bidder must demonstrate its commitment to the safety of its workers by providing the following:

1. Provide evidence of good standing with the provincial work safe authority.
2. Describe the Occupational Health and Safety (OH&S) management system that it has in place at its Approved Site; and
3. Demonstrate how it protects workers at the Approved Site by identifying procedures for the following elements:
 - a. Gas freeing for burning and welding operations;
 - b. Hot work, performing burning operations on steel and aluminum covered in layers of paint containing elements such as lead, chromium, cadmium, and copper;
 - c. Asbestos abatement;
 - d. Handling PCB laden electrical equipment and cabling;
 - e. Mold abatement;

- f. Sewage;
- g. Oily water and waste oil; and
- h. Confined space entry.

N.2.10 Preliminary Environment Protection Plan

The Bidder must submit a preliminary Environmental Protection Plan (EPP) that demonstrates the Bidder's commitment to avoidance of adverse environmental impacts through implementation of best practices rooted in pollution prevention and the promotion of sound environmental practices.

The preliminary Environmental Protection Plan (EPP) should include the following elements:

- a. Description and /or identification of Site(s) for Hazardous Material disposal.
- b. Description and /or identification of any other approved disposal sites. (i.e. municipal landfill site)
- c. Description and /or identification of recycling facility including materials to be recycled as part of this project.
- d. Copy of the asbestos abatement registration certificate.
- e. Description of the method of vessel cleaning. The description must include transportation from the work site to the disposal site and the method of packaging and bundling.
- f. Environmental Contingency Plan – this plan shall indicate the process of how contaminants are to be contained and how to deal with situations involving petroleum product leaks in water or on the ground, ozone depleting substance leaks, or fire on the vessel or explosion. Tools and materials to be used and available on board or on the site of work for the duration of the contract shall be identified.
- g. Provide details on the process for cleaning, removal, and disposal of hazardous materials, hydrocarbon impacted areas and miscellaneous items including, but not limited to; tanks, piping, boilers, engines, shafting, gearing, stern tubes, steering gear, hydraulics, bilge, sonar, areas, black and grey water, hazardous materials, asbestos, polychlorinated biphenyls (PCBs), paint, and other hazardous materials. To also include the engineering controls and personal protective equipment to be used to minimize worker exposure to hazardous materials; and
- h. Vessel flood monitoring and response plan.

The Preliminary Environmental Protection Plan should also describe the procedures in place to ensure that their facility is operated and maintained in a manner that complies with all applicable laws and regulations.

The Preliminary Environmental Protection Plan should also describe procedures to ensure that all subcontractors (including those involved in handling, transport, treatment, storage and disposal) hold valid permits, registrations and/or certificates, as applicable for each Hazardous Material listed in the IHM.

N.3 Scoring Grid

The following table provides a checklist summarizing the mandatory and point rated scoring.

Item	Section	Rating where appropriate	Mandatory? (Yes / No)	Notes regarding Mandatory inclusion in bid and point ratings.
N.2.1	Ship Breaking Experience	0 to 5	Yes	It is mandatory that the Bidder provide a description of ship breaking experience, thereafter the bid will be rated.
N.2.2	Dead Ship Transfer and Towing Experience	0 to 5	Yes	It is mandatory that the Bidder provide examples of dead ship towing experience, thereafter the bid will be rated.
N.2.3	Environmental Handling Experience	-	-	See subsections below
N.2.3.1	Environmental Management Systems	0 to 5	Yes	The Bidder's EMS must be modeled on ISO 14001, thereafter the bid will be rated.
N.2.3.2	Disposal of Hazardous Wastes	0 to 5	Yes	It is mandatory that the Bidder provide at least 1 example of a project that included their disposal of hazardous materials in at least 4 elements, thereafter the bid will be rated
N.2.4	Facilities	-	-	See subsections below
N.2.4.1	Temporary facilities	0 to 5	Only if applicable	Details only required if a temporary facility is required as part of the Bidder's project plan
N.2.4.2	Approved Shipbreaking Site	0 to 5	Yes	The Bidder must provide the details of the Approved Site for Ship Breaking, the

Item	Section	Rating where appropriate	Mandatory? (Yes / No)	Notes regarding Mandatory inclusion in bid and point ratings.
				specific details of which will be rated
N.2.4.3	Facilities – Along-side	0 to 5	Only if applicable	Details only required if an alongside facility is required as part of the Bidder's project plan
N.2.4.4	Facilities – Dry Dock / Haul Out	0 to 5	Only if applicable	Details only required if a Dry Dock / Haul Out facility is required as part of the Bidder's project plan
N.2.4.5	Permits, Licenses and Certifications for Ship Breaking	-	Yes	It is mandatory that the Bidder provide evidence of the permits for all its ship breaking facilities identified above that shows it has Permits to conduct ship breaking
N.2.4.6	Permits, licenses and certifications for Hazardous Materials handling	-	Yes	It is mandatory that the Bidder provide evidence of the permits for all hazardous material handling identified in the IHM.
N.2.4.7	Subcontracted Facilities Letter of Agreement	-	Only if applicable	If applicable, the Bidder must provide a letter of agreement regarding use of subcontractor facilities.
N.2.5	Subcontractor - List	-	Only if applicable	If applicable, the Bidder must provide a list of subcontractors
N.2.6	Project Plan	0 to 5	Yes	It is mandatory that the Bidder provide a Project plan showing all the components of the project, thereafter the project plan will be rated.

Item	Section	Rating where appropriate	Mandatory? (Yes / No)	Notes regarding Mandatory inclusion in bid and point ratings.
N.2.7	Preliminary Project Schedule	0 to 5	Yes	It is mandatory that the Bidder present a project schedule that details the milestones listed under Annex B, thereafter the schedule will be rated
N.2.8	Project Management Services	-	-	See subsections below
N.2.8.1	Project Resources	0 to 5	Yes	It is mandatory that the Bidder provide an organization chart, thereafter further details on the proposed project resources will be rated
N.2.8.2	Project Manager	0 to 5	Yes	It is mandatory that the Bidder provide a project manager having completed a minimum of one shipbreaking project, thereafter the project manager's qualifications and experience will be rated
N.2.9	Health and Safety	0 to 5	Yes	It is mandatory that the Bidder provide a WorkSafe compliance letter, thereafter the H&S plan will be rated
N.2.10	Preliminary Environment Protection Plan (EPP)	0 to 5	Yes	It is mandatory that the Bidder provide a Preliminary EPP, thereafter the EPP will be rated
	Maximum Point Rating	70		