



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

**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau

Quebec

K1A 0S5

Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

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

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

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

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

Comments - Commentaires

Title - Sujet Solid Waste Processing System	
Solicitation No. - N° de l'invitation W8482-178586/A	Date 2018-08-28
Client Reference No. - N° de référence du client W8482-178586	
GETS Reference No. - N° de référence de SEAG PW-\$ISM-027-26959	
File No. - N° de dossier 027ism.W8482-178586	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-11-01	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
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: Beaumier, Julie	Buyer Id - Id de l'acheteur 027ism
Telephone No. - N° de téléphone (613) 851-9981 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

In-Service Support Marine / Soutien en Service Maritime

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

6C2

Gatineau

Quebec

K1A 0S5

Delivery Required - Livraison exigée See Herein	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

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

- 1.1 INTRODUCTION
- 1.2 SUMMARY
- 1.3 SECURITY REQUIREMENT
- 1.4 TRADE AGREEMENTS
- 1.5 CONTROLLED GOODS PROGRAM
- 1.6 MANDATORY BIDDER'S CONFERENCE AND SITE VISIT
- 1.7 FEDERAL CONTRACTORS PROGRAM
- 1.8 DEBRIEFINGS

PART 2 - BIDDER INSTRUCTIONS

- 2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS
- 2.2 SUBMISSION OF BIDS
- 2.3 ENQUIRIES - BID SOLICITATION
- 2.4 APPLICABLE LAWS
- 2.5 TECHNICAL DATA
- 2.6 IMPROVEMENT OF REQUIREMENT DURING SOLICITATION PERIOD
- 2.7 MANDATORY BIDDERS' CONFERENCE
- 2.8 MANDATORY SITE VISIT

PART 3 - BID PREPARATION INSTRUCTIONS

- 3.1 BID PREPARATION INSTRUCTIONS

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

- 4.1 EVALUATION PROCEDURES
- 4.2 BASIS OF SELECTION

PART 5 - CERTIFICATIONS AND ADDITIONAL INFORMATION

- 5.1 CERTIFICATIONS REQUIRED WITH THE BID
- 5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENT

- 6.1 SECURITY REQUIREMENT
- 6.2 FINANCIAL CAPABILITY
- 6.3 CONTROLLED GOODS REQUIREMENT

PART 7 - RESULTING CONTRACT CLAUSES

- 7.1 STATEMENT OF WORK
- 7.2 STANDARD CLAUSES AND CONDITIONS
- 7.3 SECURITY REQUIREMENTS
- 7.4 TERM OF CONTRACT
- 7.5 PROCEDURES FOR DESIGN CHANGES/DEVIATIONS
- 7.6 AUTHORITIES
- 7.7 PAYMENT
- 7.8 INVOICING INSTRUCTIONS
- 7.9 CERTIFICATIONS AND ADDITIONAL INFORMATION
- 7.10 APPLICABLE LAWS

Solicitation No. - N° de l'invitation
W8482-178586/A
Client Ref. No. - N° de réf. du client
W8482-178586

Amd. No. - N° de la modif.
File No. - N° du dossier
027ism.W8482-178586

Buyer ID - Id de l'acheteur
027ism
CCC No./N° CCC - FMS No./N° VME

- 7.11 PRIORITY OF DOCUMENTS
- 7.12 DEFENCE CONTRACT
- 7.13 FOREIGN NATIONALS (CANADIAN CONTRACTOR OR FOREIGN CONTRACTOR)
- 7.14 NORTH ATLANTIC TREATY ORGANIZATION CODIFICATION – DATA REQUIREMENTS
- 7.15 RECOMMENDED SPARE PARTS LIST
- 7.16 TRAVEL AND LIVING
- 7.17 PROVISIONING
- 7.18 TESTING FOR SHOCK, VIBRATION AND ELTROMAGNETIC INTERFERENCE

LIST OF ANNEXES

ANNEX “A” SECURITY REQUIREMENTS CHECK LIST (SRCL)

ANNEX “B” STATEMENT OF WORK

ANNEX “C” TECHNICAL STATEMENT OF REQUIREMENT

ANNEX “D” BASIS OF PAYMENT

ANNEX “E” BID EVALUATION PLAN

ANNEX “F” ELECTRONIC PAYMENT INSTRUMENTS

**ANNEX “G” FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY –
CERTIFICATION**

ANNEX “H” DND 626 TASK AUTHORIZATION FORM

PART 1 - GENERAL INFORMATION

1.1 Introduction

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

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;
- Part 6 Security, Financial and other Requirements: includes specific requirements that must be addressed by Bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Security Requirements Checklist, Statement of Work, the Technical Statement of Requirement, the Basis of Payment, the Bid Evaluation Plan, the Electronic Payment Instruments, the Federal Contractors Program for Employment Equity - Certification, the DND 626 Task Authorization form and any other annexes.

1.2 Summary

The Department of National Defence (DND) requires innovative, proven, energy efficient, reliable, commercially available, compact solid waste treatment equipment, requiring minimal operator input that can reduce the volume and mass of onboard generated solid wastes on the Halifax Class ships. The requirement is for thirteen (13) Solid Waste Processing System including engineering support and training for maintenance personnel and operators in accordance with Annex "B" Statement of Work and Annex "C" Technical Statement of Requirement.

The requirement includes an option to purchase up to four (4) additional Solid Waste Processing System.

Installation of the SWPS is not included in the scope of the contract.

1.3 Security Requirement

There are security requirements associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 - Resulting Contract Clauses. For more information on personnel and organization security screening or security clauses, Bidders should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website".

1.4 Trade Agreement

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the North American Free Trade Agreement (NAFTA), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA).

1.5 **Controlled Good Program**

This procurement is subject to the Controlled Goods Program. The [Defence production Act](#) defines Canadian Controlled Goods as certain goods listed in Canada's Export Control List, a regulation made pursuant to the Export and Import Permits Act (EIPA)."

1.6 **Bidder's Conference Site Visit**

There is a mandatory bidders' conference and site visit associated with this requirement where personnel security screening is required prior to gaining access to CONTROLLED GOODS AND PROTECTED information, assets or sites or CLASSIFIED information, assets or sites. Consult Part 2 – Bidder Instructions.

1.7 **Federal Contractors Program**

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

1.8 **Debriefings**

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

PART 2 - BIDDER INSTRUCTIONS

2.1 **Standard Instructions, Clauses and Conditions**

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

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) 2017-04-27 Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days

Insert: 120 days

2.1.1 **SACC Manual Clauses**

B1000T 2014-06-26 Condition of Material – Bid

2.2 **Submission of Bids**

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

2.3 **Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must

be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

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

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

2.5 Technical Data

In order to receive Technical Data Packages against this solicitation, Bidders must send their request by email to the name of Julie.Beaumier@tpsgc-pwgsc.gc.ca and provide the following details:

- Company Name
- Complete mailing & physical address (p.o. box numbers not acceptable)
- Area code and telephone number
- Contact name
- E-mail address
- Solicitation Number & Closing Date

It is imperative that the request be done as soon as possible to ensure timely receipt. Notwithstanding Canada must not be held responsible for untimely release of the technical data.

2.6 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least 10 days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

2.7 Mandatory Bidders' Conference

A mandatory bidders' conference will be held at FMF Halifax **on October 2nd, 2018**. The conference will begin at 0900 local time. The scope of the requirement outlined in the bid solicitation will be reviewed during the conference and questions will be answered. It is mandatory that bidders who intend to submit a bid attend or send a representative.

Personnel security screening is required prior to gaining authorized access to the bidder's conference. Bidders are requested to communicate with the Contracting Authority before the conference to confirm attendance. Bidders must provide, in writing, to the Contracting Authority, the following information no later than **September 20th, 2018**:

- Company name and the name(s) of the person(s) who will be attending
- Provide a scanned copy of each passport for the person(s) who will be attending

Bidders are limited to 3 representatives. Failure to comply with the security requirements will result in the representatives being denied access to the bidders' conference.

Bidders will be required to sign an attendance sheet. Bidders should confirm in their bid that they have attended the bidder's Conference. Bidders who do not attend the mandatory bidder's conference or do not send a representative will not be given an alternative appointment and their bid will be declared non-responsive. Any clarifications or changes to the bid solicitation resulting from the bidder's conference will be included as an amendment to the bid solicitation.

2.8 Mandatory Site Visit

It is mandatory that the Bidder or a representative of the Bidder visit the work site. Arrangements have been made for the site visit to be held in Halifax on October 2nd 2018. It is intended that the site visit will be held in conjunction with the mandatory bidders' conference.

Personnel security screening is required prior to gaining authorized access to the site visit. Bidders are requested to communicate with the Contracting Authority before the conference to confirm attendance. Bidders must provide, in writing, to the Contracting Authority, the following information no later than **September 20th, 2018:**

- Company name and the name(s) of the person(s) who will be attending
- Provide a scanned copy of each passport for the person(s) who will be attending

Bidders are limited to 3 representatives. Failure to comply with the security requirements will result in the representatives being denied access to the bidders' conference.

Bidders will be required to sign an attendance sheet. Bidders should confirm in their bid that they have attended the site visit. Bidders who do not attend the mandatory site visit or do not send a representative will not be given an alternative appointment and their bid will be declared non-responsive. Any clarifications or changes to the bid solicitation resulting from the site visit will be included as an amendment to the bid solicitation.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Due to the nature of the bid solicitation, bids transmitted by epost Connect service will not be accepted.

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

Section I: Technical Bid (3) hard copies and (2) soft copies on CD or DVD.

Section II: Financial Bid (2) hard copies and (1) soft copies on CD or DVD.

Section III: Certifications (2) (hard copies)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

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

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

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

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will carry out the work identified in Annex B – Statement of Work, and Annex C – Technical Statement of Requirement.

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 provide sufficient detail to demonstrate a thorough understanding of the scope and objectives of the work.

Any supporting technical documentation must be provided with the bid at time of bid closing. Technical brochures or technical data must be provided to verify compliance to the Technical requirements. The Bid and Supporting technical documents must be presented in a professional format and include, as required, useable drawings:

i) Professional formatting is defined as typed and/or word processed documents only, with chronological numbering of all sections, subsections and pages; the Bidder must include the company name on each page of the bid package (not required for supporting technical documents and brochures) and a clear and accurate index.

ii) Useable drawings are defined as level one (1) drawings and produced using 3D software (e.g. Autocad).

If a supporting technical documentation is not submitted with the bid, the Contracting Authority will inform the Bidder in writing and provide the Bidder with two (2) working days from the request to submit the supporting documentation. Failure to comply with the request within the specified timeframe will result in the bid being declared non-responsive.

Annex E outlines all mandatory and Relative Rated evaluation criteria which must be included. Bidders must indicate in the column marked "Bid Page(s) # & Reference(s) #""", where the requirement is detailed in their proposal.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment in Annex D.

3.1.1 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex F Electronic Payment Instruments, to identify which ones are accepted.

If Annex F Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion

3.1.2 Exchange Rate Fluctuation

[C3011T](#) 2013-11-06 Exchange Rate Fluctuation

3.1.3 SACC Manual Clauses

B4052T 2014-06-26 Recommended Spare Parts List

B4051T 2014-06-26 Provisioning Parts Breakdown

Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

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

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

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

In order to be compliant, Bidder's proposal must, to the satisfaction of Canada, meet all requirements and provide all information required at Part 3, Section I – Technical Bid.

All mandatory criteria must be assessed as compliant for the bidder's proposal to be considered compliant and given further consideration for the Relative-Rated criteria part of the evaluation.

4.1.1.2 Relative Rated Technical Criteria

The proposals considered compliant will then be evaluated with respect to each relative-rated requirement of Annex E Bid Evaluation Plan. The criteria will be evaluated in accordance with the Rating Method describe at Relative Rated Requirements Evaluation Criteria in Annex E.

4.1.2 Financial Evaluation

Bidders must provide with their bid all financial information requested in the bid solicitation and at Annex D – Basis of Payment for items 001 to 005.

4.1.2.1 Mandatory Financial Criteria

[A0220T](#) 2014-06-26 Evaluation of Price - Bid

[A0222T](#) 2014-06-26 Evaluation of Price – Canadian/Foreign Bidders

4.1.2.2 Aggregate Evaluated Price

Bids will be evaluated on an aggregate price basis for the firm quantity and their transportation cost the optional quantity and their transportation cost and training as follows:

- a) the firm unit prices for the firm quantities will be multiplied by their identified quantities to obtain the evaluated price of the firm quantity;
- b) the firm unit prices for the transportation cost on firm quantities will be multiplied by their identified quantities to obtain the evaluation price for the transportation cost for the firm quantity.
- c) the firm unit prices for the optional quantity will be multiplied by their identified estimated quantity to obtain the evaluated price of the optional quantity;

- d) the firm unit prices for the transportation cost on the optional quantity will be multiplied by their estimated quantity to obtain the evaluated price of the transportation cost for optional quantity;
- e) the firm price for the training will be multiplied by their identified estimated quantities to obtain the evaluated price of the operation and Maintenance Training courses.
- f) the sum of all evaluated prices will determine the evaluated aggregate price.

4.2 Basis of Selection

- 1. To be declared responsive, a bid must:
 - a. comply with all the requirement of the bid solicitation, and;
 - b. meet all mandatory criteria.
- 2. Bids not meeting (a) or (b) will be declared non-responsive.
- 3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.
- 4. To establish the technical merit score, the overall technical score for each responsive bid will be prorated against the highest evaluated overall technical score and the ratio of 70%.
- 5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.
- 6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
- 7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 70/30 ratio of technical merit and price, respectively. The highest evaluated overall technical score is 135 and the lowest evaluated price is \$45,000 (45).

Basis of Selection – Highest Combined Rating Technical merit (70%) and Price (30%)

		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		135/135	120/135	110/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	$135/135 \times 70 = 70$	$120/135 \times 70 = 62.22$	$110/135 \times 70 = 57.04$
	Pricing Score	$45/55 \times 30 = 24.54$	$45/50 \times 30 = 27.00$	$45/45 \times 30 = 30$
Combined Rating		94.54	89.22	87.04
Overall Rating		1 st	3 rd	2 nd

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

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

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the Integrity declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

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

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

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

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

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

PART 6 – SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirements

1. Before award of a contract, the following conditions must be met:
 - (a) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;
 - (b) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work sites must meet the security requirements as indicated in Part 7 - Resulting Contract Clauses;
 - (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;
2. Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.
3. For additional information on security requirements, Bidders should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

6.2 Financial Capability

A9033T 2012-07-16 Financial Capability

6.3 Controlled Goods Requirement

A9130T 2014-11-27 Controlled Goods Program

PART 7 - RESULTING CONTRACT CLAUSES

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

7.1 Statement of Work

The Contractor must provide Solid Waste Processing System in accordance with the Requirement at Annex B Statement of Work, Annex C Technical Statement of Requirement and the Contractor's technical bid entitled *(to be completed at contract award)*, date *(to be completed at contract award)*.

7.1.1 Optional Goods

The Contractor grants to Canada the irrevocable option to acquire the goods listed below under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through Contract Amendment(s).

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

Optional Goods:

Up to 4 additional Solid Waste Processing System

Spares to support the Solid Waste Processing System for two years as per the Recommended Spare Parts List (RSPL) in accordance with 7.1.3 of the Annex B Statement of Work.

7.1.2 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

7.1.2.1 Task Authorization Process

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

The Technical Authority will provide the Contractor with a description of the task using the DND 626 Task Authorization Form.

The Task Authorization will contain the detail of the activities to be performed, a description of the deliverables and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The Task Authorization will also include the applicable basis (bases) and methods of payment as specified in the Contract.

The Contractor must provide the Technical Authority, within 30 calendar days of its receipt, the proposed total estimated cost of performing the task and a breakdown of that cost, establishing in accordance with the Basis of Payment specified in the Contract.

The Contractor must not commence work until a Task Authorization authorized by the Procurement Authority and/or Contracting Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a Task Authorization has been received will be done at the Contractor's own risk.

7.1.2.2 Task Authorization Limit

The procurement authority may authorize individual task authorizations up to a limit of \$100,000.00, Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of that limit must be authorized by the contracting authority before issuance.

7.1.2.3 Canada's obligation – Portion of the Work – Task Authorizations

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

7.1.2.4 Task Authorization – Department of National Defence

The administration of the Task Authorization process will be carried out by D Mar P 3-3-9. This process includes monitoring, controlling and reporting on expenditures of the contract with task authorizations to the Contracting Authority.

7.2 Standard Clauses and Conditions

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

7.2.1 General Conditions

2030 2016-04-04, General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

4006 2010-08-16 Contractor to Own Intellectual Property Rights in Foreground Information, apply to and form part of the Contract.

Delete: 4006 04 (3)

Insert:

3. For greater certainty, Canada's licenses include, but are not limited to:
 - a. the right to disclose the Foreground and Background Information to third parties bidding on or negotiating contracts with Canada and to sublicense or otherwise authorize the use of that information by any contractor engaged by Canada solely for the purpose of carrying out such contracts. Canada will require these third parties and contractors not to use or disclose that information except as may be necessary to bid on, negotiate or carry out those contracts;
 - b. the right to disclose the Foreground and Background Information to other governments for information purposes;
 - c. the right to reproduce, modify, improve, develop or translate the Foreground and Background Information or have it done by a person hired by Canada. Canada, or a person designated by Canada, will own the Intellectual Property Rights associated with the reproduction, modification, improvement, development or translation;
 - d. without restricting the scope of any license or other right in the Background Information that Canada may otherwise hold, the right, in relation to the Work or any part of the Work, to exercise such of the Intellectual Property Rights in the Background Information as may be required for the following purposes:
 - i. for the use, operation, maintenance, repair or overhaul of the Work or any part of the Work;
 - ii. in the manufacturing of spare parts for maintenance, repair or overhaul of the Work or any part of the Work by Canada, if those parts are not available on reasonable commercial terms to enable timely maintenance, repair or overhaul;
 - e. for Software that is custom designed for Canada, the right to use any source code the Contractor must deliver to Canada under the Contract.

7.3 Security Requirements

7.3.1 The following security requirements (SRCL and related clauses provided by the Contract Security Program) apply and form part of the Contract.

1. The Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Designated Organization Screening (DOS), issued by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
2. The Contractor/Offeror personnel requiring access to sensitive work site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by CISD/PWGSC.
3. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
4. The Contractor/Offeror must comply with the provisions of the:

- a) Security Requirements Check List and security guide (if applicable), attached at Annex A;
- b) *Industrial Security Manual* (Latest Edition).

7.4 Term of Contract

7.4.1 Delivery

The Contractor must deliver thirteen (13) complete systems in accordance with the Statement of Work at Annex B, the Technical Statement of Requirement at Annex C and the delivery schedule below:

DESCRIPTION	QUANTITY	DUE DATE	DESTINATION
Solid Waste Processing System	4	12 months from Factory Test Acceptance (FAT).	The location will be determined as delivery dates approach.
Solid Waste Processing System	4	13 to 24 months from Factory Test Acceptance (FAT).	The location will be determined as delivery dates approach.
Solid Waste Processing System	5	25 to 36 months from Factory Test Acceptance (FAT).	The location will be determined as delivery dates approach.

Note: The first unit must be delivered within 3 months of completing the FAT.

7.4.2 Period of the Contract

The period of the contract will be from Contract award from expiry of warranty of the last unit delivered.

7.4.3 Delivery Points

The Contractor must deliver quantity of eight (7) Solid Waste Processing System to Halifax, Nova Scotia, quantity of five (5) to Esquimalt, British Columbia and quantity of one (1) in Montreal, Quebec in accordance with the Statement of Work Annex "B" and the Technical Statement of Requirement Annex "C".

The delivery addresses of items are:

Shipping Address

East Coast Department of National Defence
Maritime Forces Atlantic
Main Supply Building
Receipts Office D-206, HMCS Dockyard
Halifax, N.S.
B3K 5X5

West Coast: Department of National Defence
Main Warehouse, Building 66 Colwood

CFB Esquimalt
Victoria, BC
V9A 7N2

Montreal: Department of National Defence
25 CFSD Montreal
6363 Notre Dame Est,
Montreal, Qc
H1N 3V9

7.4.4 Shipping Instructions - Delivery at Destination

1. Goods must be consigned to the destination specified in the Contract and delivered:

(a) Delivered Duty Paid (DDP) (Nova Scotia, British Columbia, Montréal) Incoterms 2000 for shipments from commercial contractor.

7.4.5 Preparation for Delivery

The Contractor must prepare all items for delivery in accordance with the latest issue of the Canadian Forces Packaging Specification D-LM-008-036/SF-000, DND Minimum Requirements for Manufacturer's Standard Pack.

The Contractor must package all item in quantities of 1 by package.

7.4.6 SACC Manual Clauses

B4042C	2008/05/12	Identification Markings
B4043C	2016/01/28	Military Nomenclature
B4057C	2017/11/28	Technical Publications – Manuals – Contract
B4060C	2011/05/16	Controlled Goods
B4068C	2008/05/12	Government Supplied Technical Documents
D2000C	2007/11/30	Marking
D2001C	2017/11/30	Labelling
D2025C	2017/08/17	Wood Packaging Materials
D5510C	2017/08/17	Quality Assurance Authority (DND) - Canadian-based Contractor
D5515C	2010/01/11	Quality Assurance Authority (DND) - Foreign-based and United States Contractor
D5540C	2010/08/16	ISO 9001:2008 - Quality Management Systems - Requirements (QAC Q)
D5604C	2008/12/12	Release Documents (DND) - Foreign-based Contractor
D5605C	2010/01/11	Release Documents (DND) - United States-based Contractor
D5606C	2012/07/16	Release Documents (DND) - Canadian-based Contractor
D6010C	2007/11/30	Palletization

7.5 Procedures for Design Changes/Deviations

The Contractor must complete Part 1 of the Design Change/Deviation form DND 672 and forward one (1) copy to the Technical Authority and one (1) copy to the Contracting Authority.

The Contractor will be authorized to proceed upon receipt of the design change/deviation form signed by the Contracting Authority. A contract amendment will be issued to incorporate the design change/deviation in the Contract.

7.6 Authorities

7.6.1 Contracting Authority

Solicitation No. - N° de l'invitation
W8482-178586/A
Client Ref. No. - N° de réf. du client
W8482-178586

Amd. No. - N° de la modif.
File No. - N° du dossier
027ism.W8482-178586

Buyer ID - Id de l'acheteur
027ism
CCC No./N° CCC - FMS No./N° VME

The Contracting Authority for the Contract is:

Name: Julie Beaumier
Title: Supply Team Leader
Public Works and Government Services Canada
Acquisitions Branch
Marine Sustainment Directorate
Marine In-Service Support Division
455, Boul. de la Carrière
Gatineau, Quebec, J8Y 6V7

Telephone: 613-851-9981
E-mail address: Julie.Beaumier@tpsgc-pwgsc.gc.ca

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

7.6.2 Technical Authority

The Technical Authority for this Contract is:

Mailing/Shipping Address

Department of National Defence
101 Colonel By Drive
Ottawa, Ontario
K1A 0K2
Attn: DNPS _____ (to be advised at contract)

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.6.3 Procurement Authority

The Procurement Authority for the Contract is:
Department of National Defence
101 Colonel By Drive
Ottawa, Ontario
K1A 0K2
Attn: D Mar P _____ (to be advised at contract)

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

7.6.4 Contractor's Representative

General enquiries

Solicitation No. - N° de l'invitation
W8482-178586/A
Client Ref. No. - N° de réf. du client
W8482-178586

Amd. No. - N° de la modif.
File No. - N° du dossier
027ism.W8482-178586

Buyer ID - Id de l'acheteur
027ism
CCC No./N° CCC - FMS No./N° VME

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

Delivery follow-up

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

7.7 Payment

7.7.1 Basis of Payment – Firm Quantities

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, in accordance with Annex D – Section I, for a cost of \$ (amount to be inserted at contract award). Customs duties are included and Applicable Taxes are extra.

7.7.2 Basis of Payment – Task Authorization

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the contractor will be paid in accordance with Annex D – Section II, as specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

7.7.3 Storage and Maintenance Fee

In the event that Canada request the Contractor to store the unit(s), Canada agrees to pay the Contractor the Daily Storage and Maintenance Fee, described below, for each day of delay.

This fee will be the sole liability of Canada to the Contractor for the delay.

The Daily Storage and Maintenance Fee for each Solid Waste Processing System is \$ _____ (CAD), Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.
This fee is firm and not subject to any additional charges.

7.7.4 Limitation of Price

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.7.5 Limitation of Expenditure - Cumulative Total of all Task Authorizations

1. Canada's total liability to the Contractor under the Contract for all authorized Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of \$ _____. (*to be inserted at contract award*) Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - a. when it is 75 percent committed, or
 - b. four (4) months before the contract expiry date, or

- c. as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions, whichever comes first.
4. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority, a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.7.6 SACC Manual Clauses

- H1001C 2008/05/12 Multiple Payments
C2000C 2007/11/30 Taxes - Foreign-based Contractor

7.7.7 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

7.8 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
 - a. The Original and one (1) copy must be forwarded to the following address for certification and payment:

National Defence Headquarters
MGen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attn: D Mar P _____
Email: _____ (to be inserted at contract award)
 - b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.
 - c. One (1) copy must be forwarded to the consignee.

7.8.1 Release Documents - Distribution

The Contractor must prepare the release documents in a current electronic format and distribute them as follows:

- (a) One (1) copy mailed to consignee marked: "Attention: Receipts Officer";
- (b) Two (2) copies with shipment (in a waterproof envelope) to the consignee;
- (c) One (1) copy to the Contracting Authority;
- (d) One (1) copy to:

National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A OK2
Attention: _____
Email: _____ (to be inserted at contract award)

- (e) One (1) copy to the Quality Assurance Representative;
- (f) One (1) copy to the Contractor; and
- (g) For all non-Canadian contractors, one (1) copy to:

DQA/Contract Administration
National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A OK2
E-mail: ContractAdmin.DQA@forces.gc.ca

7.9 Certifications and Additional Information

7.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

7.9.2 Federal Contractors Program for Employment Equity - Default by the Contractor

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

7.10 Applicable Laws

be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a
The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____ (*insert the name of the province or territory as specified by the Bidder in its bid, if applicable*).

7.11 Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4006:(2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information
- (c) the general conditions:
 - 2030 (2016-04-04): General Conditions – Higher Complexity - Goods;
 - 1031-2 (2012-07-16); Contract Cost Principles
- (d) Annex A, Security Requirement Check List
- (e) Annex B, Statement of Work;
- (f) Annex C, Technical Statement of Requirement
- (g) Annex D, Basis of Payment;
- (h) the signed Task Authorizations (including all of its annexes, if any);

- (i) the Contractor's bid dated _____, (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award.*"), as clarified on _____ " **or** ", as amended on _____ " and insert date(s) of clarification(s) or amendment(s)).

7.11 Defence Contract

A9006C (2012/07/16) Defence Contract

7.12 Foreign Nationals (Canadian Contractor or Foreign Contractor)

A2000C (2006-06-16) Foreign Nationals (Canadian Contractor)

A2001C (2006-06-16) Foreign Nationals (Foreign Contractor)

7.13 Controlled Goods Program

A9131C (2014-11-27), Controlled Goods Program

7.14 North Atlantic Treaty Organization Codification – Data Requirements

1. The Contractor must provide the Department of National Defence (DND), which is the National Codification Bureau (NCB) for Canada, sufficient technical data to permit the Director, Supply Chain Operations (DSCO) to classify, codify and describe new items being introduced into the Canadian Government Cataloguing System.
2. Technical data for each item may include the manufacturer's engineering drawing (minimum level 2), standard, specification and/or data specification sheet (brochure). Regardless of which of these formats is provided, the data must clearly provide the following, as applicable:
 - a. the name and address of the true manufacturer, or Design Control Authority;
 - b. the manufacturer's unique part number;
 - c. the physical characteristics (material, dimensions, tolerances);
 - d. performance data (i.e. functional and operating requirements such as speed, load);
 - e. electrical and/or electronic characteristics;
 - f. mounting requirements;
 - g. special features which contributed to the uniqueness of the item(s);
 - h. the end item application; and, if applicable
 - i. manufacturer's unique bar code number.
3. Technical descriptive data are not required for items that are identified in a Canadian or United States government specification or in a Military Standard which completely describes the item.
4. The Contractor is responsible for advising DND Technical Authority and the NCB (DSCO 5) of any proprietary data or restrictions imposed on the release of its technical data to government entities in Canada or abroad.
5. In the event of disputes regarding the acceptability of technical data submitted by the Contractor, the ruling of the NCB (DSCO) must prevail.
6. The Contractor is ultimately responsible, under the conditions of the Contract, for the provision of the technical data for all of the items identified in the Contract. The Contractor must include the terms of this clause in any subcontracts, to ensure the availability of the technical data to DND and the NCB (DSCO).
7. For end items procured by the Contractor from a subcontractor or supplier, the Contractor must provide the name of the actual manufacturer and their unique identifying part number along with all necessary technical documentation, and their bar code number if available.

8. The Contractor must submit all data to the DND Technical Authority at least sixty (60) days before delivery of the equipment. Items must not be released for shipment unless identified with a NATO Stock Number provided for in the Contract, or unless specifically authorized by the Contracting Authority.
9. The Contractor must contact the DSCO for any further clarification of the codification technical data requirements at:
National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attention: Director Supply Chain Operations (DSCO)

7.15 Recommended Spare Parts List

1. The Contractor must, within 45 days after contract award and approval of the Certification for Shock, Vibration and Electromagnetic Interference, provide to the Procurement Authority a Recommended Spare Parts List (RSPL) prepared in accordance with the current issue of Canadian Forces Specification D-01-100-214/SF-000. The RSPL must contain the Contractor's recommendation for spares required to maintain the equipment for a 24-month period, and must provide the basis for the spares selection to be made by Department of National Defence. Upon request from the Contractor, the specification will be provided by the Contracting Authority.
2. Supplementary Provisioning Technical Documentation (SPTD), as prepared by the actual manufacturer of the item, is required for the codification and cataloguing of all items listed in the RSPL. The SPTD called up in the above specification must accompany the RSPL as detailed in the specification. Specific details of the data elements required must be listed on a Provisioning Documentation Selection Sheet, prepared in accordance with the above specification, and be submitted in electronic ASCII text format.
3. Questions regarding the preparation, format or contents of the above provisioning documentation must be directed to the Procurement Authority.

7.16 Travel and Living

Contractor personnel may be required to travel to NDHQ or other military establishments, to other Contractor's plants, and to other locations within Canada and internationally, as may be designated by the Technical Authority

7.16.1 Travel and Living Expenses

The Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal and private vehicle allowances specified in Appendices B, C and D of the [National Joint Council Travel Directive](#), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Contracting Authority. All payments are subject to government audit.

7.17 Provisioning

7.17.1 Provisioning Parts Breakdown

1. The Contractor must, 15 days after the design of a deliverable is accepted by the Technical Authority, provide to the Procurement Authority a Provisioning Parts Breakdown (PPB) prepared in accordance with the current issue of Canadian Forces Specification D-01-100-214/SF0-000.

Copies of all assembly level drawings and parts lists required to verify the complete and current configuration of the equipment must accompany the PPB. Upon request from the Contractor, the specification will be provided by the Contracting Authority.

2. Supplementary Provisioning Technical Documentation (SPTD), as prepared by the actual manufacturer of the item, is required for the codification and cataloguing of all items listed in the PPB. The SPTD called up in the above specification must be supplied, as detailed in the specification, within twenty (20) working days after receipt of a request from the Director Supply Chain Operations (DSCO). Specific details of the data elements required must be listed on a Provisioning Documentation Selection Sheet, prepared in accordance with the above specification and the PPB, and be submitted in electronic ASCII text format.
3. Final acceptance of the PPB and the SPTD will be made by DSCO. Questions regarding the preparation, format or contents of the above provisioning documentation must be directed to Procurement Authority.

7.17.2 Initial Provisioning Conference

1. The purpose of an Initial Provisioning Conference (IPC) is to allow the Department of National Defence (DND) to verify that the Provisioning Parts Breakdown reflects the current and complete configuration of the equipment being procured by comparing it against full assembly drawings, and to select the range of spares required to support the system/equipment during an initial period of service, as determined in the Statement of Work. The IPC will be held in the offices of the Director Technical Information and Codification Services (DTICS), in the National Capital Region, unless Canada determines that it is necessary to hold the IPC at the Contractor's facility. If so, the Contractor must provide offices to hold the IPC at the Contractor's facility at no additional cost to Canada.
2. Upon acceptance of the provisioning documentation by DTICS, the Contractor may be required to provide:
 - a. engineering and product support assistance;
 - b. engineering, reliability and maintainability data;
 - c. modification data, if applicable.
3. DND certifies that it will adhere to all proprietary and intellectual property rights relating to items identified in this documentation.
4. Questions regarding the preparation, format or contents of the above provisioning documentation must be directed to the Procurement Authority.

7.18 Testing and qualification

The Contractor must provide the test and qualification result of the supplied unit for Shock, Vibration and Electromagnetic Interference as per Section 9.2, 9.3 and 9.4 of Annex B - Statement of Work prior performing the Factory Acceptance Test (FAT) as per Section 9.5 of Annex B - Statement of Work.

If not already tested, the Contractor must have successfully completed all tests and qualifications for Shock, Vibration and Electromagnetic Interference within 12 months of Contract Award. The Factory Acceptance Test (FAT) must be completed within 3 months of the Shock, Vibration and Electromagnetic Interference certification.

Solicitation No. - N° de l'invitation
W8482-178586/A
Client Ref. No. - N° de réf. du client
W8482-178586

Amd. No. - N° de la modif.
File No. - N° du dossier
027ism.W8482-178586

Buyer ID - Id de l'acheteur
027ism
CCC No./N° CCC - FMS No./N° VME

Failure to provide the testing and qualifications results within the specified timeframe will be ground for termination of the Contract for default.



Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat W8482-156642
Security Classification / Classification de sécurité Unclassified

**SECURITY REQUIREMENTS CHECK LIST (SRCL)
LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)**

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE		
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine DND	2. Branch or Directorate / Direction générale ou Direction ADM MAT DGMEPM DNPS 6	
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail The Contractor shall provide the supplies and services for an Oil Water Separator IAW the SOW and TSOR		
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui	
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?	<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui	
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)	<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui	
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.	<input type="checkbox"/> No / Non <input checked="" type="checkbox"/> Yes / Oui	
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?	<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui	
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	
	Foreign / Étranger <input type="checkbox"/>	
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions / Aucune restriction relative à la diffusion <input checked="" type="checkbox"/> <i>20</i>	All NATO countries / Tous les pays de l'OTAN <input type="checkbox"/>	
Not releasable / À ne pas diffuser <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>	
Restricted to: / Limité à: <input type="checkbox"/>	Specify country(ies): / Préciser le(s) pays: <input type="checkbox"/>	
Specify country(ies): / Préciser le(s) pays: <input type="checkbox"/>	Specify country(ies): / Préciser le(s) pays: <input type="checkbox"/>	
7. c) Level of information / Niveau d'information		
PROTECTED A / PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED / NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A / PROTÉGÉ A <input type="checkbox"/>
PROTECTED B / PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED / NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B / PROTÉGÉ B <input type="checkbox"/>
PROTECTED C / PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL / NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C / PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL / CONFIDENTIEL <input type="checkbox"/>	NATO SECRET / NATO SECRET <input type="checkbox"/>	CONFIDENTIAL / CONFIDENTIEL <input type="checkbox"/>
SECRET / SECRET <input type="checkbox"/>	COSMIC TOP SECRET / COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET / SECRET <input type="checkbox"/>
TOP SECRET / TRÈS SECRET <input type="checkbox"/>		TOP SECRET / TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) <input type="checkbox"/>



Contract Number / Numéro du contrat W8482-156642
Security Classification / Classification de sécurité Unclassified

PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui
If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? No / Non Yes / Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :
Document Number / Numéro du document :

PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

- | | | | |
|---|---|---|--|
| <input checked="" type="checkbox"/> RELIABILITY STATUS
COTE DE FIABILITÉ | <input type="checkbox"/> CONFIDENTIAL
CONFIDENTIEL | <input type="checkbox"/> SECRET
SECRET | <input type="checkbox"/> TOP SECRET
TRÈS SECRET |
| <input type="checkbox"/> TOP SECRET - SIGINT
TRÈS SECRET - SIGINT | <input type="checkbox"/> NATO CONFIDENTIAL
NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET
NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET
COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS
ACCÈS AUX EMPLACEMENTS | | | |

Special comments:
Commentaires spéciaux :

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.
REMARQUE: Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? No / Non Yes / Oui
If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? No / Non Yes / Oui
*ON DND PREMISES
UNSCREENED PERSONNEL MAY
ONLY ACCESS PUBLIC/RECEPTION ZONES*

PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? No / Non Yes / Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? No / Non Yes / Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? No / Non Yes / Oui



Contract Number / Numéro du contrat W8482-158642
Security Classification / Classification de sécurité Unclassified

PART C - (continued) / PARTIE C - (suite)

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.
Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.
Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

Category / Catégorie	PROTECTED / PROTÉGÉ			CLASSIFIED / CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL / NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET / COSMIC TRÈS SECRET	PROTECTED / PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET / TRÈS SECRET
											A	B	C			
Information / Assets / Renseignements / Biens / Production																
IT Media / Support TI																
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui
- If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.
12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui
- If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

Annex B
To: W8482-178586
Dated: 18 July 2018

STATEMENT OF WORK (SOW)
FOR
HALIFAX CLASS SOLID WASTE PROCESSING SYSTEMS (SWPS)

TABLE OF CONTENTS

1. PURPOSE 3
2. BACKGROUND 3
3. APPLICABLE DOCUMENTS 3
4. PROJECT MANAGEMENT 4
5. TECHNICAL REQUIREMENTS 7
6. INTEGRATED LOGISTIC SUPPORT 7
7. TECHNICAL DATA PACKAGE 8
8. ENGINEERING SUPPORT 9
9. TESTS AND TRIALS11
10. ADDITIONAL WORK REQUESTS15
11. WARRANTY15
12. PREPARATION FOR DELIVERY15
13. DELIVERABLES15

1. **PURPOSE**

- 1.1. This Statement of Work (SOW) defines the requirement of the Department of National Defense (DND) for the delivery of 13 (thirteen) Solid Waste Processing System (SWPS) for operation on board all Halifax Class Frigates (HFX) and a shore-based facility. There will be an option to procure up to an additional 4 (four) SWPS.
- 1.2. In the event of a conflict between the text of this SOW and the references cited herein, this SOW must take precedence.

2. **BACKGROUND**

- 2.1. Changes to solid waste environmental conventions under MEPC 62/24 Annex 13, Regulation 3 state that the “discharge of all garbage into the sea is prohibited [with certain exceptions]”. Since these changes came into effect on 1 January 2013, most Solid Waste Processing Systems on HFX Class Vessels became obsolete, requiring that all paper, cardboard, plastics and other wastes be retained onboard until offloaded alongside.
- 2.2. The Royal Canadian Navy (RCN) requires innovative, proven, energy efficient, reliable, commercially available compact solid waste treatment equipment, requiring minimal operator input that can reduce the volume of onboard generated solid wastes.

3. **APPLICABLE DOCUMENTS**

- 3.1. The following documents form part of this SOW to the extent specified herein. Unless otherwise specified, the issue or amendment of documents effective for this requirement must be those in effect on the date of contract award.
 - 3.1.1. Canadian Forces Technical Order CFTO D-01-100-214/SF-000: Specification for Preparation of Provisioning Documentation for Canadian Forces Equipment
 - 3.1.2. CFTO C-01-100-100/AG-005: Acceptance of Commercial and Foreign Government Publications as Adopted Publications
 - 3.1.3. CFTO D-03-003-007/SG-000: Specification for Design and Test Criteria for Shock Resistant Equipment in Naval Ships, 1978
 - 3.1.4. CFTO D-03-003-019/SG-001: Standard for Vibration Resistant Equipment, 1978
 - 3.1.5. CFTO C-03-010-000/MM-001: Canadian Naval Shipboard Techniques for Electromagnetic Compatibility, 2007
 - 3.1.6. CFTO D-02-002-001/SG-001: Standard for Identification Marking of Canadian Military Property

- 3.1.7. CFTO D-LM-008-002/SF-001: Specification for Marking for Storage and Shipment
- 3.1.8. CFTO D-LM-008-036/SF-000: Department of National Defence Minimum Requirements for Manufacture's Standard Pack
- 3.1.9. CFTO D-01-400-002/SF-000: Levels of Engineering Drawings
- 3.1.10. SAE EIA 649B-2011 Configuration Management Standard

4. **PROJECT MANAGEMENT**

- 4.1. The Contractor must designate a Project Manager (PM) with the authority to plan, direct, control and make decisions related to the Contractor's obligations under this contract.
 - 4.1.1. The PM must be the primary contact between the Contractor and CANADA.
- 4.2. The Contractor must prepare and deliver a Project Management Plan (PMP) to identify how the Contractor intends to fulfill the project management of the contract. The PMP must be delivered at a time agreed upon by CANADA. The PMP must include, but is not limited to, the following sections:
 - 4.2.1. Management Organization, Communications and Responsibilities;
 - 4.2.2. Work Breakdown Structure (WBS);
 - 4.2.3. Master Schedule with Milestones;
 - 4.2.3.1. Delivery schedule, and
 - 4.2.3.2. Critical path activities.
 - 4.2.4. Quality Assurance Plan;
 - 4.2.5. Test plans, and
 - 4.2.6. Risk Register and Mitigation Strategy.
- 4.3. In order to ensure the consistency of the delivered equipment's performance, functional and physical attributes with its requirements, design and operational information, the Contractor must develop and implement a Configuration Management Plan (CMP) IAW SAE EIA-649B-2011. The CMP must be delivered at a time agreed upon by CANADA.

4.4. Project Meetings

4.4.1. Within 1 (one) month of Contract Award, the Contractor must conduct a contract Kick-Off-Meeting at the Contractor's facility. The Contractor must prepare and deliver a meeting agenda within 5 (five) working days before the meeting.

4.4.2. The Kick-Off-Meeting agenda must include, without being limited, to the following:

4.4.2.1. The PMP;

4.4.2.2. The CMP; and

4.4.2.3. The Technical Statement of Requirements (TSOR).

4.4.2.4. Any other contractual or programmatic issues associated with the contract as mutually agreed between CANADA and the Contractor.

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

4.4.4. The progress review meeting must encompass total project status as of the review date. The Contractor, at a minimum, must report on the following:

4.4.4.1. Progress to date;

4.4.4.2. Variation from planned progress and the corrective action to be taken during the next reporting period;

4.4.4.3. A general explanation of foreseeable problems and proposed solutions, including an assessment of their impact on the contract in terms of schedule, technical performance and risk. The proposed solution should include the effort involved and the consequences to the schedule (Risk Register);

4.4.4.4. Proposed changes to the schedule;

4.4.4.5. Progress on action items, problems or special issues;

4.4.4.6. Deliverables submitted prior to PRM;

4.4.4.7. Milestones (technical and financial);

4.4.4.8. Activities planned for the next reporting period;

4.4.4.9. Status of Intellectual Property (IP) agreements, International Traffic in Arms Regulations (ITAR), Technical Assistance Agreements (TAA), Controlled Technology Access and Transfer (CTAT) or other agreements;

4.4.4.10. Status of any change notifications and requests;

4.4.4.11. Any changes to the PMP; and

4.4.4.12. Other business as mutually agreed to by CANADA and the Contractor.

4.5. Meeting Agenda

4.5.1. The Contractor must prepare and submit an electronic copy of the agenda to CANADA at least five (5) working days in advance of each meeting. Except in the case of unscheduled meetings, in which case the Contractor must submit an agenda 24 hours prior to the meeting.

4.5.2. CANADA and the Contractor must mutually agree to the contents of the agenda.

4.5.3. Supporting documentation and agenda must be prepared in the Contractor's format. The Agenda must include the following:

4.5.3.1. Purpose of the meeting;

4.5.3.2. List of expected attendees;

4.5.3.3. Time, date, location and expected duration of the meeting;

4.5.3.4. Facilities and equipment to be provided for attending personnel;

4.5.3.5. List of data items and documents to be reviewed or provided to support the meeting. Adequate copies of all such data and documentation must be provided; and

4.5.3.6. Adequate copies of the current Action Item List (AIL) where appropriate

4.6. Meeting Minutes

4.6.1. The Contractor must record, produce, deliver and revise, as required, minutes for all meetings. The Contractor must prepare and distribute within five (5) working days an electronic copy of the minutes to CANADA. Meeting minutes are accepted once signed by the Contracting Authority (CA). Canada will advise the Contractor of any issues within two (2) working days of receiving the minutes at which point the Contractor will be responsible for revision and resubmittal within two (2) working days.

4.6.2. Meeting / Teleconference / Conference Minutes must be prepared in the Contractor's format and must include the following information:

- 4.6.2.1. Date and location of meeting;
- 4.6.2.2. Name, organization, phone number, e-mail address and title of each person that attended the meeting;
- 4.6.2.3. Statement relating to the purpose and/or objective of the meeting; and
- 4.6.2.4. The original agenda and any revisions to the agenda - this may be accomplished by reference to attachments or enclosures.
- 4.6.3. Minutes should include a record of each item discussed or reviewed during the meeting, including:
 - 4.6.3.1. A brief statement identifying the item or problem and their status;
 - 4.6.3.2. A summary of pertinent information associated with the item;
 - 4.6.3.3. A recommendation;
 - 4.6.3.4. An action item - identifying the person or organization responsible for taking and/or coordinating required action with key dates and closure criteria; and
 - 4.6.3.5. An updated Action Item List (AIL) with all open and closed items.

5. **TECHNICAL REQUIREMENTS**

- 5.1. The Contractor must comply with the technical requirements as detailed in the TSOR Annex C, Technical Statement of Requirements (TSOR) for the delivery of the Solid Waste Processing System (SWPS) (i.e. the "delivered equipment").

6. **INTEGRATED LOGISTIC SUPPORT**

- 6.1.1. The Contractor must deliver a Provisioning Parts Breakdown (PPB) list IAW CFTO D-01-100-214/SF-000 at a time agreed upon by CANADA.
- 6.1.2. The Contractor must deliver a Recommended Spare Parts List (RSPL) IAW CFTO D-01-100-214/SF-000 at a time agreed upon by CANADA.
- 6.1.3. The Contractor must deliver a Planned Maintenance Schedule and Overhaul Schedule IAW CFTO C-01-100-100/AG-005 at a time agreed upon by CANADA.
- 6.1.4. At an agreed upon time, and after review and concurrence of the RSPL by CANADA, the Contractor must provide two years' worth of recommended replacement parts. It must be based on the Planned Maintenance and Overhaul Schedule and Mean Time Between Failure (MTBF) data of all components to support 4 (four) systems of delivered equipment.

- 6.1.5. The Contractor must deliver a complete parts breakdown list including consumables to the TA for review within a timeframe agreed upon by CANADA.
- 6.1.6. The Contractor must deliver the Supplementary Provisioning Technical Documentation (SPTD) required for codification and cataloguing of all items listed in the PPB and RSPL.
- 6.1.7. The SPTD must be prepared IAW the instructions contained in CFTO D-01-100-214/SF-000, and delivered at a time agreed upon by CANADA and prior to conduct of the Initial Provisioning Conference (IPC).
- 6.1.8. As part of the SPTD, the Contractor must prepare and deliver engineering drawings and associated lists which include all parts defined in the PPB, RSPL at a time agreed upon by CANADA.
- 6.1.9. The Contractor must hold an Initial Provisioning Conference (IPC) to allow DND the opportunity to verify that the PPB and engineering drawings and associated lists reflect the delivered equipment configuration.

7. **TECHNICAL DATA PACKAGE**

7.1. Technical Manuals

- 7.1.1. All technical manuals must be in both official languages of CANADA: English and French.
- 7.1.2. Submission of all technical manuals must be made in consultation with, and within a timeframe agreed between Canada and the Contractor. Consultation includes a review and concurrence that the manuals meet the criteria below; with any further changes made at the expense of the Contractor.
- 7.1.3. The Contractor must prepare and deliver an Operations and Maintenance Manual(s) (OMM) IAW CFTO C-01-100-100/AG-005 for the delivered equipment.
- 7.1.4. Manual(s) must contain the following IAW CFTO C-01-100-100/AG-005:
 - 7.1.4.1. Operation instructions as well as information required for the function and specifications for the delivered equipment;
 - 7.1.4.2. Recommended planned and corrective maintenance instructions and schedule for the delivered equipment;
 - 7.1.4.3. Fault finding and troubleshooting section for the delivered equipment, and.
 - 7.1.4.4. An Illustrated Parts List (IPL) for the delivered equipment.

7.2. Engineering Drawings

- 7.2.1. The Contractor must deliver a complete set of engineering drawings for the delivered equipment, in PDF format. The engineering drawings must include, but is not limited to, schematic drawings, assembly drawings and identification of all component parts in order to conduct first and second level maintenance IAW the TSOR Annex C, Appendix II. The engineering drawings must be produced to a Level 1 classification IAW D-01-400-002/SF-000.

8. **ENGINEERING SUPPORT**

8.1. Installation Guidance Package

- 8.1.1. The Contractor must prepare, in Contractor format, an Installation Guidance Package to be accepted by the TA that will provide all the necessary information, including drawings and associated lists, sufficient to enable DND to produce a Ship Installation Specification.
- 8.1.2. The Contractor must deliver the Installation Guidance Package, at an agreed upon time with CANADA, for review and acceptance by the TA.

8.2. Cadre Training

- 8.2.1. The Contractor must conduct fifteen (15) operator and maintenance cadre training sessions at a time agreed to between the Contractor and the TA.
- 8.2.1.1. Five (5) training sessions will take place in Esquimalt, BC and seven (7) training sessions will take place in Halifax, NS aboard the HFX Class ships alongside. The training must be provided to DND operational, maintenance and shipboard staff. The Cadre training sessions must be conducted concurrently with the Set-To-Work, with a maximum of six (6) students at each training session.
- 8.2.1.2. One (1) training session will take place in Esquimalt, BC and one (1) training session will take place in Halifax, NS at the Canadian Forces Naval Engineering School. The training must be provided to DND operational, maintenance and training staff. The Cadre training sessions must be conducted with a maximum of ten (10) students at each training session.
- 8.2.1.3. One (1) training session will take place in Montreal, QC at the Naval Engineering Test Establishment (NETE). The training must be provided to NETE and DND operational and maintenance personnel. The Cadre training session must be conducted concurrently with the Set-To-Work, with a maximum of ten (10) students.
- 8.2.2. The Contractor must conduct Cadre training that will include but is not limited to the following:
- 8.2.2.1. Instruction and practical training for DND operational, maintenance and training staff on the Solid Waste Processing System components and functions;

- 8.2.2.2. Various operating modes;
 - 8.2.2.3. System monitoring, operation checks, and operation training;
 - 8.2.2.4. Loading and unloading procedures;
 - 8.2.2.5. Instrumentations;
 - 8.2.2.6. Limits of operation, safety and alarms;
 - 8.2.2.7. System pre-operational checks and start-up procedures;
 - 8.2.2.8. System routine inspections, adjustments and first and second level maintenance IAW the TSOR Annex C, Appendix II, and
 - 8.2.2.9. System shut down and long term stowage protections.
- 8.3. Cadre Training Package
- 8.3.1. The Contractor must prepare and produce a Cadre Training Package (CTP). The CTP must contain course training materials for system operation and system maintenance to a level suitable for operators and maintainers (first and second level maintenance IAW the TSOR Annex C, Appendix II).
 - 8.3.2. The Contractor must deliver a CTP IAW best current industrial practices. The CTP must include, but is not limited to, the following:
 - 8.3.2.1. Outline;
 - 8.3.2.2. Training material;
 - 8.3.2.3. Workbooks and Manuals, and
 - 8.3.2.4. Appropriate training aids to be used with or without the delivered equipment.
 - 8.3.3. The CTP must be reviewed and accepted by the TA.
 - 8.3.4. The CTP must be delivered in 4 hard copies and 4 soft copies upon acceptance of the first delivered unit.
 - 8.3.5. The CTP will be used for subsequent internal training on the equipment at DND facilities.

9. TESTS AND TRIALS

9.1. The Contractor must provide proof of testing and qualification of the delivered unit for Shock, Vibration and Electromagnetic Interference. If the delivered unit has not been Shock, Vibration or Electromagnetic Interference tested and qualified, the Contractor must successfully complete testing and qualification within one year of contract award and prior to performing the Factory Acceptance Test (FAT).

9.2. Shock

9.2.1. For equipment not tested to meet the shipboard shock requirements, the Contractor must prepare and deliver, in Contractor format, a Shock Test (ST) plan and procedure to be utilized to attain the required qualification IAW CFTO D-03-003-007/SG-000 (Grade 2B). The ST plan and procedures must contain, but is not limited to, all conditions, precautions, adjustments, mounting, equipment configuration and test equipment requirements to prepare the equipment for the test(s).

9.2.2. The Contractor must deliver the ST plan and procedures for review and acceptance by the TA. The ST plan and procedures must be delivered no later than 1 (one) month prior to shock qualification testing.

9.2.3. The Contractor must conduct the accepted ST on a unit identical to the proposed SWPS unit. The ST must be conducted on a date mutually agreed upon by CANADA and the Contractor and witnessed by the TA or a designated representative.

9.2.4. The Contractor must produce and deliver a ST report to the TA for acceptance, in Contractor format, within 10 (ten) working days of successful testing and qualification. The report must contain, but is not limited to, qualification attained, all readings recorded, measurements taken, observations made and the names and signatures of test witnesses.

9.3. Vibration

9.3.1. For equipment not tested to meet the shipboard vibration requirements, the Contractor must prepare and deliver, in Contractor format, a Vibration Test (VT) plan and procedure to be utilized to attain the required qualification IAW CFTO D-03-003-019/SG-001. The VT plan and procedures must, but is not limited to, contain all conditions, precautions, adjustments, mounting, equipment configuration and test equipment requirements to prepare the equipment for the test(s).

9.3.2. The Contractor must deliver the VT plan and procedures for review and acceptance by the TA. The VT plan and procedures must be delivered no later than 1 (one) month prior to vibration qualification testing.

- 9.3.3. The Contractor must conduct the accepted VT on a unit identical to the proposed SWPS unit. The VT must be conducted on a date mutually agreed upon by CANADA and the Contractor and witnessed by the TA or a designated Contractor representative.
- 9.3.4. The Contractor must produce and deliver a VT report to the TA for acceptance, in Contractor format, within 10 (ten) working days of successful testing and qualification. The report must contain, but is not limited to, qualification attained, all readings recorded, measurements taken, observations made and the names and signatures of test witnesses.
- 9.4. Electromagnetic Interference
- 9.4.1. For equipment not tested to meet the shipboard Electromagnetic Interference requirements, the Contractor must prepare and deliver, in Contractor format, an Electromagnetic Interference Test (EMIT) plan and procedure to be utilized to attain the required qualification IAW CFTO C-03-010-000/MM-001. The EMIT plan and procedures must contain, but is not limited to, all conditions, precautions, adjustments, equipment configuration and test equipment requirements to prepare the equipment for the test(s).
- 9.4.2. The Contractor must deliver the EMIT plan and procedures for review and acceptance by the TA. The EMIT plan and procedures must be delivered no later than 1 (one) month prior to electromagnetic interference qualification testing.
- 9.4.3. The Contractor must conduct the accepted EMIT on a unit identical to the proposed SWPS unit. The EMIT must be conducted on a date mutually agreed upon by CANADA and the Contractor and witnessed by the TA or a designated representative.
- 9.4.4. The Contractor must produce and deliver a EMIT report to the TA for acceptance, in Contractor format, within 10 (ten) working days of successful testing and qualification. The report must contain, but is not limited to, qualification attained, all readings recorded, measurements taken, observations made and the names and signatures of test witnesses.
- 9.5. Factory Acceptance Test
- 9.5.1. The Contractor must prepare and deliver, in Contractor format, a Factory Acceptance Test (FAT) plan and procedure. The FAT plan and procedures must contain, but is not limited to, all conditions, precautions, adjustments, starting procedures, tolerances and test equipment required to prepare the equipment for execution of the FAT. The FAT must include pass/fail criteria.

- 9.5.2. The Contractor must deliver the FAT plan and procedures for review and acceptance by the TA. The FAT plan and procedures must be delivered no later than 15 (fifteen) working days prior to the execution of the FAT.
- 9.5.3. The Contractor must conduct a FAT on the first Solid Waste Processing System at the Contractor's facility on a date agreed between CANADA and the Contractor. The FAT must be conducted IAW the approved FAT Plan and Procedures. The FAT must be witnessed and accepted by the TA or its delegated representative.
- 9.5.4. The Contractor must produce and deliver a FAT report to the TA for acceptance, in Contractor format, within 10 (ten) working days of successful testing. The report must contain, but is not limited to, all readings recorded, measurements taken, observations made and the names and signatures of test witnesses.
- 9.6. Set-to-Work Tests
 - 9.6.1. The Contractor must prepare and deliver, in Contractor format, a Set-To-Work (STW) plan and procedure that provides detailed instructions for the inspection, set up, adjustment and functional test of each delivered unit after installation in each designated location.
 - 9.6.1.1. Five (5) STW will take place in Esquimalt, BC aboard each HFX Class ship.
 - 9.6.1.2. Seven (7) STW will take place in Halifax, NS aboard each HFX Class ship.
 - 9.6.1.3. One (1) STW will take place in Montreal, QC at the Naval Engineering Test Establishment (NETE).
 - 9.6.2. The Contractor must deliver the STW plan and procedures for review and acceptance by the TA. The STW plan and procedures must be delivered no later than 15 (fifteen) working days prior to delivery of the first delivered unit.
 - 9.6.3. The accepted STW must be performed by the Contractor's certified Contractor Representative equipped with any special tools, instruments or parts necessary to perform the work after installation of each delivered unit in each designated location.
 - 9.6.4. STW activities performed by the Contractor Representative must be witnessed by the TA or designated representative.
 - 9.6.5. On completion of each Set-To Work, the delivered unit must be certified in writing by the Contractor Representative as fully prepared and ready for in-service use.
 - 9.6.6. The Contractor must produce and submit a STW report to the TA for acceptance, in Contractor format, within 10 (ten) working days of successful testing. The report must contain, but is not limited to, all readings recorded, measurements taken, observations made, the names and signatures of STW witnesses, training conducted and the names of personnel trained.

9.6.7. Availability of Contractor Representative Service must be arranged between the Contractor and CANADA. The Contractor must be given a minimum 30 (thirty) calendar days' notice of the requirement to provide the service.

9.7. Harbour Acceptance Trial Test Plan

9.7.1. The Contractor must prepare and deliver, in Contractor format, a Harbour Acceptance Trial Test plan and procedure (HATTP). The HATTP must contain, but is not limited to, the procedures to be followed for equipment preparation, instrumentation calibration or test, loading, startup, operation, shutdown and unloading necessary for testing the performance of the delivered equipment against factory results as installed in a HFX Class ship.

9.7.2. The Contractor must deliver the HATTP for review and acceptance by the TA. The HATTP must be delivered no later than 15 (fifteen) working days prior to the execution of the HATT.

9.7.3. The HATTP will be conducted by the TA or designated representative. The Contractor must provide a Contractor Representative to assist in the conduct of the HATTP.

9.7.4. Availability of a Contractor Representative to support conduct of the HATTP must be arranged between the Contractor and TA with the Contractor given a minimum 30 (thirty) calendar days' notice of the requirement to provide the service.

9.8. Sea Acceptance Trial Test Plan:

9.8.1. The Contractor must prepare and deliver, in Contractor format, a Sea Acceptance Trial Test Plan (SATTP). The SATTP must contain, but is not limited to, the procedures to be followed for equipment preparation, instrumentation calibration or test, loading, startup, operation, shutdown and unloading under the environmental conditions specified in the TSOR Annex C for testing the performance of the delivered equipment against factory results as installed in a HFX Class ship at sea.

9.8.2. The SATTP must be submitted for TA review and acceptance concurrently with the HATTP.

9.8.3. The SATTP will be conducted by the TA or designated representative.

10. ADDITIONAL WORK REQUESTS

10.1. There may be a requirement for the Contractor to perform other work on an “as and when requested”. This work will be initiated and authorized by CANADA and may include, but is not limited to the following:

10.1.1. Ship SWPS installation technical assistance;

10.1.2. SWPS troubleshooting;

10.1.3. System repair for non-warranty items, and

10.1.4. Technical investigation.

11. WARRANTY

11.1. Warranty requirements are as detailed in the Terms and Conditions of the Contract.

12. PREPARATION FOR DELIVERY

12.1. Equipment is to be marked and prepared for shipping IAW CFTO D-02-002-001/SG-001, CFTO D-LM-008-002/SF-001, and CFTO D-LM-008-036/SF-000.

13. DELIVERABLES

13.1. Deliverable Format and Number of Copies

13.1.1. All documentation delivered under this requirement must be in both hard and soft copies. The soft copy must be delivered on CD-ROM. Unless otherwise agreed to by CANADA, the acceptable formats for electronic data are in Table 1.

Table 1 - Electronic Data Format

DATA TYPE	ELECTRONIC FORMAT
Text	Microsoft Word 2013
Graphics	Microsoft PowerPoint 2013, Microsoft Visio 2013
Spreadsheets	Microsoft Excel 2013
Database	Microsoft Access 2013
Schedule	Microsoft Project 2013

13.2. Deliverable Summary

Table 2 – Deliverable Summary

DELIVERABLE	SECTION IN SOW
Project Management Plan (PMP)	Para. 4.2
Configuration Management Plan (CMP)	Para. 4.3
Contract Kick-Off-Meeting Agenda	Para. 4.4.2 & Para. 4.5
Meeting Agenda	Para. 4.5
Meeting Minutes	Para. 4.6
Provisioning Parts Breakdown (PPB)	Para. 6.1.1
Recommended Spare Parts List (RSPL)	Para. 6.1.2
Planned Maintenance Schedule and Overhaul Schedule	Para. 6.1.3
Complete Parts Breakdown List	Para. 6.1.5
Supplementary Provisioning Technical Documentation (SPTD)	Para. 6.1.6
Operation and Maintenance Manual(s) (OMM)	Para. 7.1.3 & Para. 7.1.4
Engineering Drawings	Para. 7.2.1
Installation Guidance Package	Para. 8.1.1
Cadre Training Package (CTP)	Para. 8.3.1
Proof of Testing and Qualification for Shock	Para. 9.1
Proof of Testing and Qualification for Vibration	Para. 9.1
Proof of Testing and Qualification for Electromagnetic Interference	Para. 9.1
If required, Shock Test (ST) Plan and Procedure	Para. 9.2.1
If required, Shock Test (ST) Report	Para. 9.2.4
If required, Vibration Test (VT) Plan and Procedure	Para. 9.3.1
If required, Vibration Test (VT) Report	Para. 9.3.4
If required, Electromagnetic Interference Test (EMIT) Plan and Procedure	Para. 9.4.1
If required, Electromagnetic Interference Test (EMIT) Report	Para. 9.4.4
Factory Acceptance Test (FAT) Plan and Procedure	Para. 9.5.1
Factory Acceptance Test (FAT) Report	Para. 9.5.4
Set-To-Work (STW) Plan and Procedures	Para. 9.6.1
Set-To-Work (STW) Certificate (one for each unit)	Para. 9.6.5
Set-To-Work (STW) Report (one for each unit)	Para. 9.6.6
Harbour Acceptance Trial Test Plan (HATTP) and Procedure	Para. 9.7.1
Sea Acceptance Trial Test Plan (SATTP) and Procedure	Para. 9.8.1

13.3. Equipment Delivery Schedule

13.3.1. The Contractor must deliver 13 units at a time agreed upon by CANADA.

Annex C
To: W8482-178586
Dated: 18 July 2018

TECHNICAL STATEMENT OF REQUIREMENT (TSOR)
FOR
HALIFAX CLASS SOLID WASTE PROCESSING SYSTEMS (SWPS)

TABLE OF CONTENTS

1. PURPOSE 3
2. BACKGROUND 3
3. REFERENCE DOCUMENTS 3
4. TERMINOLOGY 4
5. SYSTEM DESIGN 6

ATTACHMENTS

- Appendix A – Existing Solid Waste Handling Compartment Details
- Appendix B – Maintenance Level Definitions
- Appendix C – Energy Efficiency Calculation

1. **PURPOSE**

- 1.1. This document states the technical requirements of the Department of National Defence (DND) for the supply of a Solid Waste Processing System (SWPS) for use onboard Halifax Class Frigates (HFX).

2. **BACKGROUND**

- 2.1. Changes to solid waste environmental conventions under MEPC 62/24 Annex 13, Regulation 3 state that the “discharge of all garbage into the sea is prohibited [with certain exceptions]”. Since these changes came into effect on 1 January 2013, most Solid Waste Processing Systems on HFX Class Vessels became obsolete, requiring that all paper, cardboard, plastics and other wastes be retained onboard until offloaded alongside.
- 2.2. The Royal Canadian Navy (RCN) requires innovative, proven, energy efficient, reliable, commercially available, compact solid waste treatment equipment, requiring minimal operator input that can reduce the volume of onboard generated solid wastes.

3. **APPLICABLE DOCUMENTS**

- 3.1. Applicability: In the event of conflict between the documents referenced herein and the contents of the TSOR, the contents of the TSOR apply.
- 3.2. International Documents
- 3.2.1. Annex IV of MARPOL 73/78, Regulations for the Prevention of Pollution by Sewage from Ships
- 3.2.2. Annex VI of MARPOL 73/78: Regulations for the Prevention of Air Pollution from Ships
- 3.2.3. Maritime Environmental Protection Committee (MEPC) Resolution MEPC.244(66), Annex 8. 2014: Standard Specification for Shipboard Incinerators
- 3.2.4. ISO 13850:2015 Safety of machinery — Emergency stop function — Principles for design
- 3.2.5. STANAG 1008, Edition 9: Characteristics of Shipboard Low Voltage Electrical Power Systems in Warships of the North Atlantic Treaty Navies, Aug 2004. Particularly Annex B (User Information and Constraints)
- 3.2.6. Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Rev 6, 2015
- 3.2.7. Department of Health and Human Services (DHHS) National Institute for Occupational Safety and Health (NIOSH) Publication No. 2007-131: Ergonomic Guidelines for Manual Material Handling, April 2007
- 3.2.8. Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste, Annex V
- 3.3. National Documents

- 3.3.1. Canada Shipping Act 2001: Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69)
- 3.3.2. Canadian Environmental Protection Act, 1999 (S.C. 1999, c. 33)
- 3.3.3. Hazardous Products Act (Canada), 1985
- 3.3.4. Workplace Hazardous Materials Information System (WHMIS) Regulation, 1988 and 2015
- 3.3.5. Fisheries Act, 1985
- 3.3.6. Federal Halocarbon Regulations (FHR), 2003 (SOR/2003-289)
- 3.3.7. Ozone-Depleting Substances and Halocarbon Alternative Regulations (ODSHAR), (SOR/2016-137)
- 3.4. DND Documents
 - 3.4.1. Canadian Forces Technical Order CFTO D-03-003-012/SG-000: Airborne Noise Levels in Canadian Forces Vessels (Their Machinery and Equipment). 2015. In particular, section "Noise Levels of Sources", paragraph 10
 - 3.4.2. CFTO D-03-003-005/SF-000: General Electrical Specification for Canadian Forces Ships, 2012
- 4. **TERMINOLOGY**
 - 4.1. **Air Pollutants:** Air Pollutant Emissions include sulphur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOCs), ammonia (NH₃), carbon monoxide (CO) and fine particulate matter (PM_{2.5}).
 - 4.2. **Discharge:** A pollutant that directly or indirectly exits the vessel and enters the water, by means of spilling, leaking, pumping, pouring, emitting, emptying, throwing or dumping.
 - 4.3. **Energy Efficiency:** The total input energy consumed by the SWPS, from all sources, to process 170 kg of Shipboard Solid Waste. Instructions showing how to calculate energy efficiency are in Appendix C.
 - 4.4. **Hazardous waste:** Garbage that might present a hazard to the ship or crew (e.g. oily rags, light bulbs, acids, chemical, batteries, etc.).
 - 4.5. **Innovative:** The introduction to a Royal Canadian Navy vessel of something original; a new idea, method, or device.
 - 4.6. **Normal State:** When the SWPS is operating with all components working within Original Equipment Manufacturer (OEM) design parameters to process solid waste.
 - 4.7. **Preventive Maintenance:** Maintenance, including tests, measurements, adjustments, parts replacement, and cleaning, performed specifically to prevent faults from occurring.

- 4.8. **Processable Hazardous Waste:** Hazardous waste that may be processed onboard a Royal Canadian Navy vessel; Sludge oil, oily rags, oil filters, and Bio-Waste (excluding sharps - objects used to puncture or cut skin).
- 4.9. **Processing Cycle:** The completion of the sequence of events required to process solid waste. This includes operating the system after loading so that all stages required to process the waste are completed. At the end of a processing cycle the resulting processed waste is ready in all respects to be unloaded from the SWPS.
- 4.10. **Plastic:** A solid material that contains, as an essential ingredient, one or more high molecular mass polymers and that is formed or shaped during either manufacture of the polymer or the fabrication into a finished product by heat and/or pressure. Plastics have material properties ranging from hard and brittle to soft and elastic. For the purposes of this specification, plastic means all garbage that consists of or includes plastic in any form, including synthetic materials, Styrofoam, plastic bottles and plastic garbage bags.
- 4.11. **Processed Waste:** Waste that has undergone a full processing cycle.
- 4.12. **Shipboard Solid Waste:** This is a mix of unprocessed solid materials normally generated as non-hazardous waste onboard a seagoing vessel. This may be represented by the following nominal composition (by weight): 50% Food Waste; 50% rubbish containing approx. 30% paper, 40% Cardboard, 10% Rags, and 20% Plastic (MEPC 66/21 Annex 3, page 13). Shipboard solid waste does not include hazardous waste, bio-waste, industrial chemicals, toxins, and explosive or radioactive materials.
- 4.13. **Special Tools:** Tools provided for systems only available through the OEM. This definition also applies for special instruments, special external devices and special equipment for the proposed system.
- 4.14. **Start-up time:** The time taken to boot and power-up from a cold state, such that the SWPS is ready in all aspects to begin processing waste.
- 4.15. **Sub-assembly:** A component (or unit) assembled separately but designed to be incorporated with other components (or units) into a larger manufactured product. In this case, the SWPS is the "larger manufactured product".
- 4.16. **System Shut Down:** The SWPS main power switch is placed in the "Off" position rendering the equipment safe to be left unattended.

5. **SYSTEM DESIGN**

5.1. **System Performance Requirements**

- 5.1.1. The SWPS must be capable of processing, without segregating, presorting or preprocessing, shipboard solid waste as defined in para 4.12.
- 5.1.2. One operator should be sufficient to operate, load and unload the SWPS.
- 5.1.3. The processing cycle should be completely automated without operator intervention or supervision.
- 5.1.4. The SWPS should reduce the weight of shipboard solid waste.
- 5.1.5. The SWPS should reduce the volume of shipboard solid waste.
- 5.1.6. The SWPS should be capable of continuous or cyclic operation when processing 170 kg of shipboard solid waste within an 8 hour period from a cold start.
- 5.1.7. The total time required to load the SWPS with shipboard solid waste for each processing cycle to process 170 kg of shipboard solid waste in an 8 hour period should be minimal.
- 5.1.8. The load of shipboard solid waste the SWPS can process in a system operating steady state should be maximized..
- 5.1.9. System start-up time should be minimal.
- 5.1.10. On completion of a full processing cycle, the load of processed waste produced will be handled manually by one operator alone. Therefore, the load must not weigh more than 23 kg in accordance with Publication No. 2007-131: Ergonomic Guidelines for Manual Material Handling.
- 5.1.11. The system should be mechanically secure and capable of continuous operation under the environmental conditions in Table 1.

	Environmental Condition	Max	Min
a.	Ship compartment Temp	50 °C (120 °F)	2 °C (35.6 °F)
b.	Ship compartment Relative Humidity	100 %	0 %
c.	Sea Temperature	32 °C (89.6 °F)	-2.2 °C (28 °F)
d.	Roll - General	±10°	
e.	Pitch - General	±5°	
f.	Roll - Intermittent Manoeuvres ⁽¹⁾	±22.5°	
g.	Pitch - Intermittent Manoeuvres ⁽¹⁾	±7.5°	

⁽¹⁾ For example; man overboard, collision avoidance, etc.

Table 1: Shipboard Environmental Conditions

5.1.12. Airborne noise levels measured at full load and all other normal operating states must be in accordance with the requirements of CFTO D-03-003-012/SG-000. The solid waste handling compartment must be considered a workshop when considering the SWPS noise level against maximum airborne sound levels acceptable in ship's spaces.

5.2. Environmental Requirements

5.2.1. If SWPS contains incineration and/or thermal destruction technologies, a certificate of type approval must be provided in accordance with MARPOL, Annex VI (Appendix IV).

5.2.2. If SWPS contains incineration and/or thermal destruction technologies, the device must be certified as being constructed in accordance with MEPC.244(66) .

5.2.3. The SWPS must not release any harmful air emissions in violation of MARPOL, Annex VI.

5.2.4. The system's harmful air emissions should be minimal in accordance with Directive 2000/76/EC Annex V for the items in Table 2:

Table 2 - Daily average values

	Item	Units
a.	Total dust (particulates)	mg/m ³
b.	Hydrogen chloride	mg/m ³
c.	Hydrogen Fluoride	mg/m ³
d.	Sulfur dioxide	mg/m ³
e.	Nitrogen oxide	mg/m ³
f.	Carbon monoxide	mg/m ³
g.	Dioxins/Furans ^{TEF}	ng/m ³
h.	Total Cadmium & Thallium	mg/m ³
i.	Mercury	mg/m ³

5.2.5. The SWPS must not contain or emit any ozone depleting substances in accordance with the Federal Halocarbon Regulations, 2003 SOR/2003-289 (FHR) the Ozone-Depleting Substances and Halocarbon Alternative Regulations, SOR/2016-13 (ODSHAR).

5.2.6. The SWPS must not release any noxious liquid substances leading to a contravention of MARPOL Annex IV the Vessel Pollution and Dangerous Chemical Regulations SOR/2012-69 and the *Fisheries Act* R.S.C., 1985, c. F-14 (VPDCR).

5.2.7. The SWPS should be capable of processing Processable Hazardous Waste producing non-hazardous processed waste.

5.2.8. Processed waste must be inert and non-hazardous for 30 days under the environmental conditions in Table 1 (a. and b.) without becoming a safety or environmental hazard (i.e. without fermenting, combusting or producing harmful contaminants). Note that encapsulating garbage is not an allowable method to meet this requirement.

5.3. **Energy Efficiency Requirements**

- 5.3.1. The use of ships services should be minimized. Ships services are available for use as follows (services are a finite resource and maximums detailed may not be exceeded).
 - 5.3.1.1. Ship's power: 440 VAC, 3 Phase, 60 HZ, maximum 200 Amps in accordance with STANAG 1008, Edition 9: Characteristics of Shipboard Low Voltage Electrical Power Systems in Warships of the North Atlantic Treaty Navies.
 - 5.3.1.2. Hot (60°C) and cold fresh water: system pressure 206 – 483 kpa, flow rate 6 l/min each. Daily combined consumption over a 24 hour period must not exceed 15 l/hr.
 - 5.3.1.3. Low pressure air: filtered compressed air at a working pressure of 840 kpa (range 630 – 890 kpa) at a maximum flow rate of 19 m³/hr. Daily consumption over a 24 hour period must not exceed an average of 0.36 m³/hr. The supplied air is operating at -40 °C dew point after passing through the dryers.
 - 5.3.1.4. Ship's sea water circulation system: system pressure 816 kpa, flow rate 223.3 l/min.
 - 5.3.1.5. Piped drains connected to ship's grey water system or bilge collection system. , and
 - 5.3.1.6. If required, Naval Distillate Fuel (NATO Code F-76) will be supplied to the SWPS.
- 5.3.2. Provision of services to individual equipment, such as diesel fuel, water and air, requires the use of one or more electric pumps and directly or indirectly impacts the use of ship's fuel. Therefore, the total amount of energy consumed by the SWPS can be estimated by summing the amount of energy required to power the SWPS and the energy consumed providing services to the SWPS to provide the impact on the ship's fuel supply.
- 5.3.3. The SWPS should be energy efficient.

5.4. **Physical Requirements**

- 5.4.1. The SWPS must be installed on the main weather deck (1 deck) in the Solid Waste Handling Compartment (SWHC) on HFX ships. The SWHC has space available for installation of a SWPS on two levels; the lower level and the mezzanine level. SWPS loading and unloading must be performed on the lower level.
- 5.4.2. On the lower level, the SWPS must fit within the Primary Equipment Envelope (see Appendix I, Figure 2) and include the operational and maintenance envelopes and +/- 100 mm tolerance in any direction:
 - 5.4.2.1. Width of 3140 mm; and
 - 5.4.2.2. Depth of 2540 mm;

5.4.3. If required, the area on the mezzanine within the Secondary Equipment Envelope (see Appendix I, Figure 3) may also be used or reconfigured for installing modules associated with the SWPS, however, the trunking height and cargo hatch restrictions must be taken into consideration:

5.4.3.1. Width of 3140 mm; and

5.4.3.2. Depth of 2780 mm

5.4.4. The area occupied by the proposed SWPS in the Primary and Secondary Envelopes should be as small as possible.

5.4.5. Modification of the mezzanine should not be required. Beneath the mezzanine, the lower level height is restricted to 2060 mm.

5.4.6. The wet weight of the entire system and ancillaries (e.g. fuel tanks, scrubber, exhaust ducting, base plate, etc.) should be as small as possible.

5.4.7. The maximum wet weight of modules associated with the SWPS to be installed on the mezzanine deck must not exceed 3000 kg.

5.4.8. The wet weight of modules associated with the SWPS to be installed on the mezzanine deck should be as small as possible.

5.4.9. The entire SWPS or each module should be capable of passing through a ship's soft patch opening measuring 1970 mm (height) x 1350 mm (width) x 1700 mm (depth).

5.5. **Interface Requirements**

5.5.1. The SWPS should have provision for remote indication of information, relating to the system operating parameters to ensure monitoring for safe and efficient operation of the SWPS, by interfacing with IPMS (Integrated Platform Management System) via a CAT 5 cable. The communication User Datagram Protocol (UDP) is preferred (Transmission Control Protocol/Internet Protocol [TCP/IP] acceptable) compliant with MODBUS 5 protocol. Further details of IPMS required for integration can be provided upon request.

5.5.2. The SWPS should have common signal grounding with the interfacing equipment in accordance with CFTO D-03-003-005/SF-000.

5.5.3. Wireless components must not be included in the SWPS or associated equipment.

5.5.4. An exhaust stack will be accommodated should one be required.

5.6. **Safety Requirements**

5.6.1. A functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, must be featured as part of the SWPS:

5.6.1.1. The emergency stop button must comply with ISO 13850:2015.

5.6.1.2. The emergency stop button must power down the equipment in a fail-safe mode.

5.6.1.3. The operation of the emergency stop button must be clearly stated in the SWPS operating instructions.

5.6.1.4. Electrical technical documentation must be included that demonstrates how the Emergency Stop button is incorporated into the SWPS system. The electrical technical documentation must include, as a minimum, a wiring diagram.

5.7. **Maintenance Requirements**

5.7.1. The system design should be such that all maintenance can be carried out in-situ.

5.7.2. The system design should be such that maintenance having a periodicity of less than 30 days can be carried out without dismantling external electrical connections, fittings or piping interfaces. See Appendix II – Maintenance Level Definitions for a definition of maintenance levels.

5.7.3. The system design should be such that the average monthly effort to complete all shipboard preventive first level maintenance is minimal (assuming 170 kg of shipboard solid waste per day has been processed for a 30 day period).

5.7.4. Any cleaning agents specific to the equipment must be identified by product name and chemical composition, and satisfy the following requirements:

5.7.4.1. Must be safe to store given the environmental conditions indicated in para 5.1.11;

5.7.4.2. Must not produce harmful by-products in accordance with Canada Shipping (2001, c. 26) under normal ship operating conditions; and

5.7.4.3. Must not contain substances that are toxic, prohibited, restricted, or are subject to notification or consent as per the Canadian Environmental Protection Act S.C. 1999, c. 33.

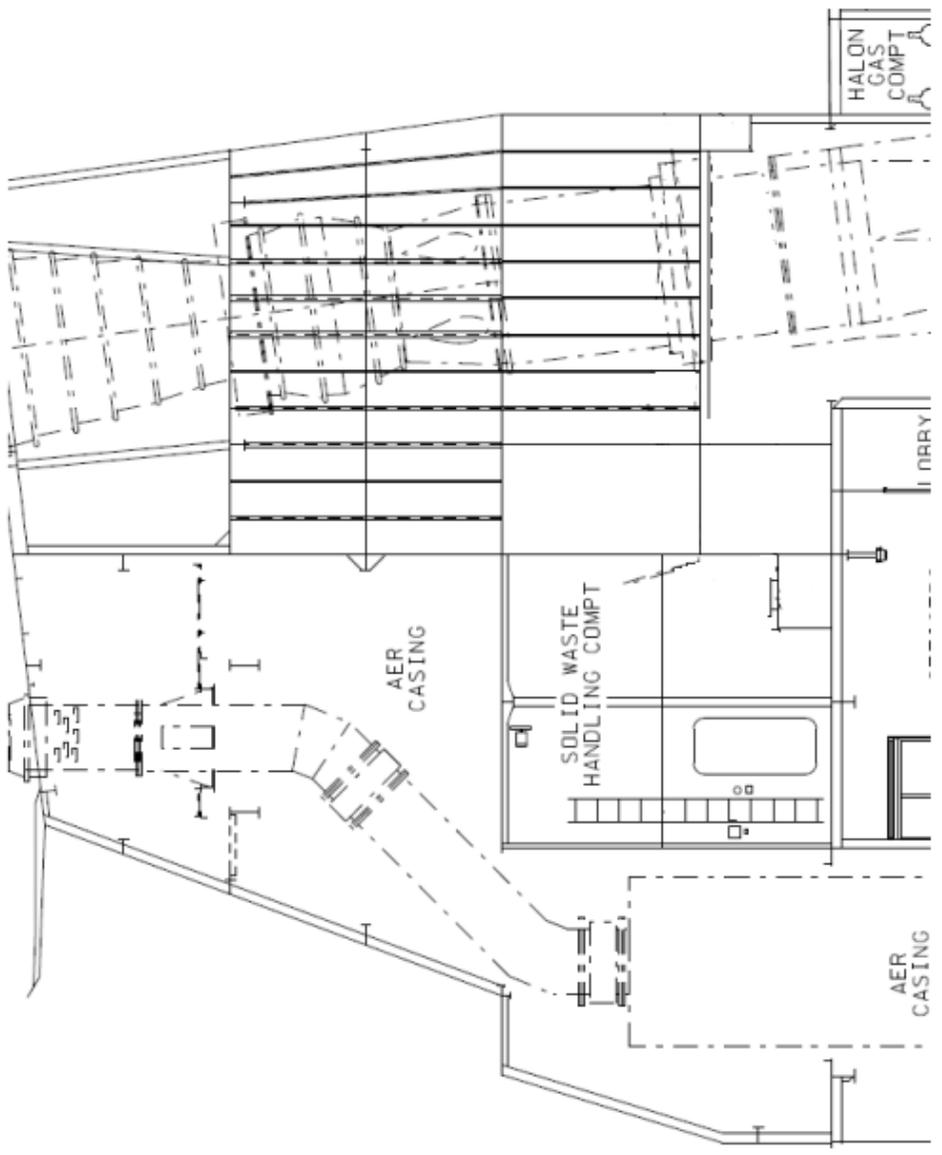
5.7.5. All spares should be capable of being installed with minimum use of special tools.

5.7.6. The total volume required for storage of the system's onboard consumables during at-sea operations (up to a maximum of 6 months) should be as low as possible.

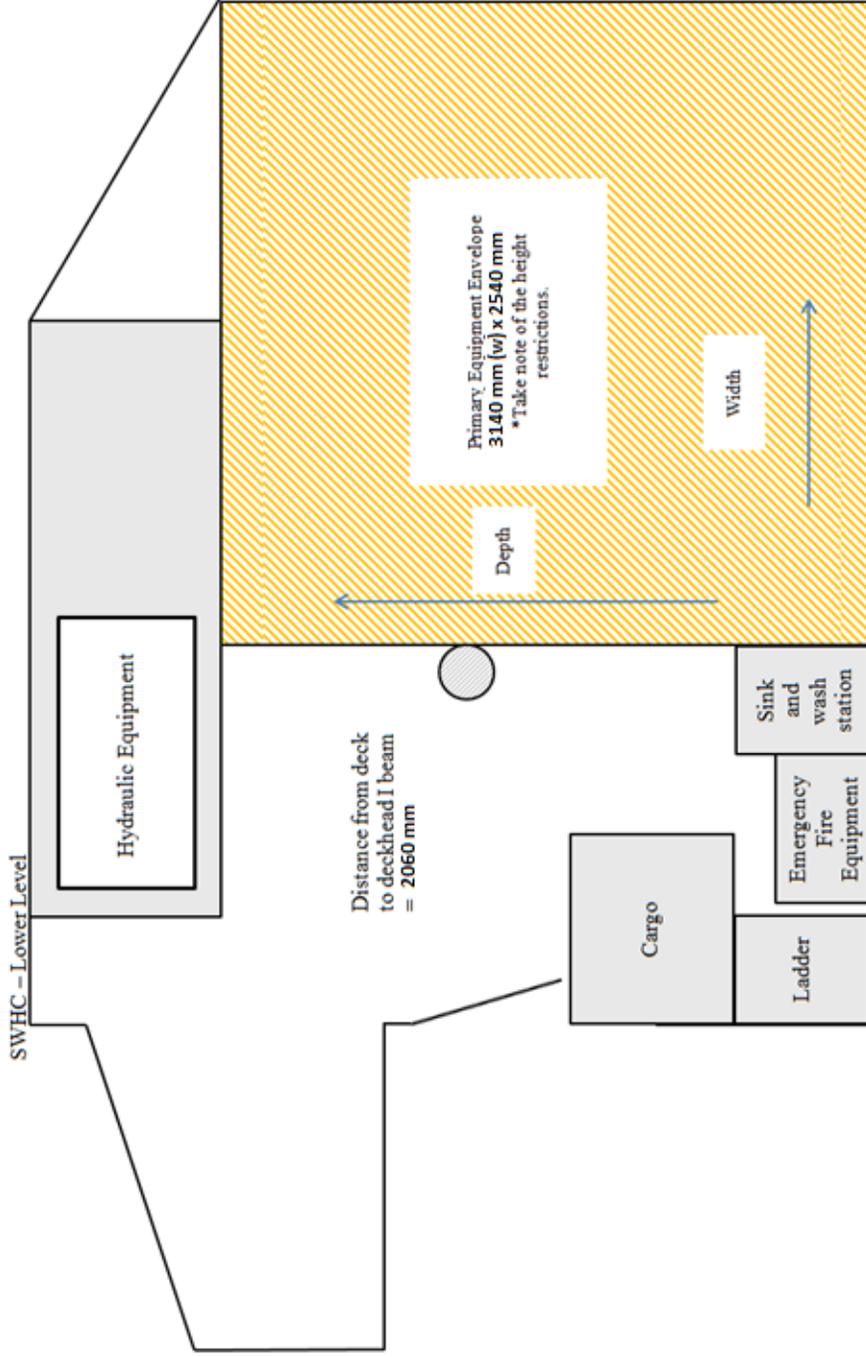
5.8. **Material Requirements**

- 5.8.1. Any system components in contact with the deck must be constructed of materials impervious to corrosive and erosive effects at all temperatures and pressures encountered during normal operation of the system.
- 5.8.2. All materials used in the SWPS should be suitable for a marine environment.
- 5.8.3. The following restrictions apply:
 - 5.8.3.1. Cadmium must not be used.
 - 5.8.3.2. Chlorosulphonated polyethylene (CSP, trade name "hypalon") and polyvinyl chloride (PVC) must not be used as insulators for electrical cables; and
 - 5.8.3.3. Plastic must not be used as structural components.
- 5.8.4. Materials included in the system design or used during operation, maintenance or repair of the system, must meet Hazardous Products Act (R.S.C., 1985, c. H-3).
- 5.8.5. Workplace Hazardous Material Information System (WHMIS) material safety data sheets (MSDS), or the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), must be provided for cleaning agents and any other hazardous components used for the proposed system.

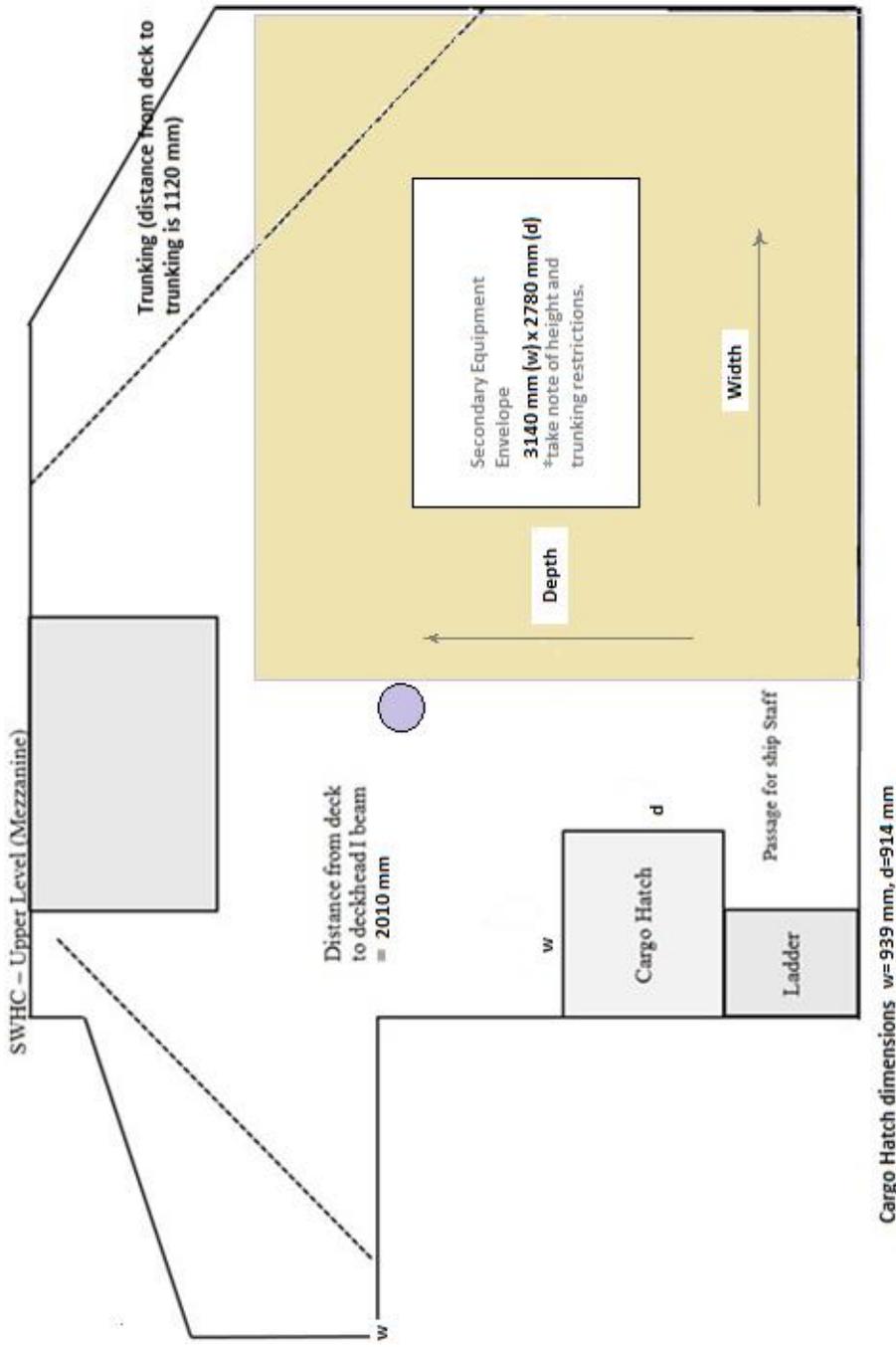
EXISTING SOLID WASTE HANDLING COMPARTMENT DETAILS
FOR
HALIFAX CLASS SOLID WASTE PROCESSING SYSTEM (SWPS)



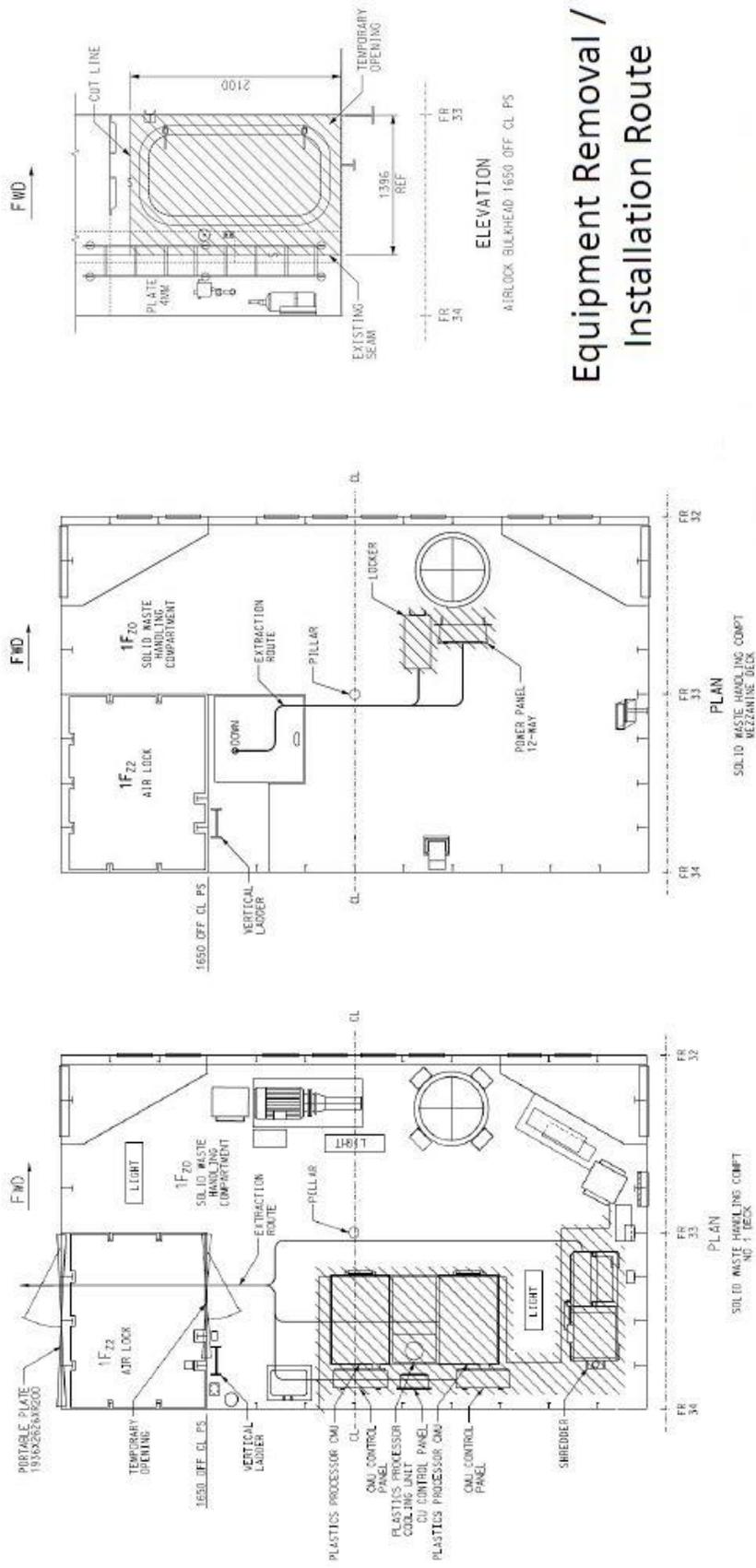
Appendix A, Figure 1: Solid Waste Handling Compartment
(side view).



Appendix A, Figure 2: Top down view Solid Waste Compartment Main Level. A proposed location for the Solid Waste Processing Unit is in the Primary Equipment Envelope area. The Primary Equipment Envelope includes the operation and maintenance envelope of the SWPS. Also, take note of Figure 3 below, the Secondary Equipment Envelope.



Appendix A, Figure 3: Top down view Solid Waste Compartment Second Level (Mezzanine).
 A proposed location for the Solid Waste Processing Unit associated equipment is in the Secondary Equipment Envelope area. The Secondary Equipment Envelope is a proposed location for other modules associated with the SWPS (such as power panel, control panel and possibly cooling, for example).



Equipment Removal / Installation Route

Appendix A Figure 4 – Present Solid Waste Compartment and proposed removal/installation routes

MAINTENANCE LEVEL DEFINITIONS
FOR
HALIFAX CLASS SOLID WASTE PROCESSING SYSTEM (SWPS)

Maintenance Levels Definitions

DND utilizes a maintenance management system involving three levels of maintenance:

1. **First Level Maintenance** – maintenance normally performed onboard ship by shipboard naval technicians required to ensure continued reliable operation, such as but not limited to: operating checks and trouble-shooting, membrane cartridge checks and change as well as preservation and cold weather protection (as required for shipping); repairing fluid leaks; checking and repairing valves and switches; repairing actuator assembly switch, changing O-rings, etc.
2. **Second Level Maintenance** – maintenance normally performed onboard ship by specialized shore-based support facilities which is more complex, time consuming and involves higher skill levels than 1st level maintenance activities, such as but not limited to: Preventative Maintenance testing; removal and replacement of acoustic hardware (mounts, expansion joins, flexible hoses and connections); and
3. **Third Level Maintenance** – maintenance normally conducted in a specialized shore-based repair facility by highly skilled technicians, such as but not limited to: complete equipment overhauls; complete overhaul of major components removed during 2nd level activities and 3rd level equipment overhauls; modification, and testing and evaluation.

ENERGY EFFICIENCY CALCULATION
FOR
HALIFAX CLASS SOLID WASTE PROCESSING SYSTEM (SWPS)

Table C-1 Electrical Consumption Calculations

Service	Parameter	Units		Duty Cycle	Calculation	Energy kWh/l
Hot fresh water Calorifier	Capacity	500	liters	2 Calorifiers each supplying 1 ring main running 100% of the time	Initial heat up from 10 – 60°C will take approx. 20 mins and will consume 10 kWh. kWh/h dependent on time ship is at sea. Allow for 30 days at sea so 0.01 kWh/h. HW tanks insulated so, after initial heat up, heating element will be on approximately 30% of the time. 81.5 kWh/h x 30% = 24.45 kWh/h 24.45 + 0.01 = 24.46 kWh/h	0.0581
	Input Temperature	10	°C			
	Operating Temperature	60	°C			
	Power	81.5	kW			
Hot fresh water	Flow rate	550	l/h	2 pumps running 100% of the time	0.373 kWh/h for pump + 24.46 kWh/h to maintain temperature = 24.8 kWh/h; 24.8 kWh/h ÷ 550 l/h = 0.0451 kWh/l Fresh water production uses 0.0130 kWh/l 0.0451 kWh/l + 0.0130 kWh/l = 0.0581 kWh/l	0.0581
	Pressure	550	kPa			
	Power	0.373	kW			
Cold fresh water	Flow rate	14000	l/h	1 pump running 100% of the time	5.6 kWh/h ÷ 14000 l/h = 0.0004 kWh/l Fresh water production uses 0.0130 kWh/l 0.0004 kWh/l + 0.0130 kWh/l = 0.0134 kWh/l	0.0134
	Pressure	400	kPa			
	Power	5.6	kW			
Sea water	Flow rate	154000	l/h	2 pumps running 100% of the time	7.46 kWh/h x 2 = 14.92 kWh/h 14.92 kWh/h ÷ 154000 l/h = 0.0001 kWh/l	0.0001
	Pressure	120	kPa			
	Power	7.46	kW			
F76 Diesel	Flow rate (High speed)	17000	l/h	1 pump running on low 70% of the time and on high 30%	High speed 2.46 kWh/h x 30% = 0.738 kWh/h; Low speed 1.19 kWh/h x 70% = 0.833 kWh/h. Total = 1.571 kWh/h High speed 17000 l/h x 30% = 5100 l/h; Low speed 5500 l/h x 70% = 3850 l/h. Total = 8950 l/h. 1.571 kWh/h ÷ 8950 l/h = 0.0002 kWh/l for pump	0.0002
	Power (High speed)	2.46	kW			
	Flow rate (Low speed)	5500	l/h			
	Power (Low speed)	1.19	kW			
	Pressure (High speed)	330	kPa			
	Pressure (Low speed)	360	kPa			
LP Air	Flow rate	258000	l/h	1 pump running 100% of the time	37.3 kWh/h ÷ 258000 l/h = 0.0001 kWh/l	0.0001
	Pressure	830	kPa			
	Power	37.3	kW			

Bidder Worksheet

Table C-2 is provided to allow the Bidder to calculate total estimated ship's fuel consumption to process 170 kg of shipboard solid waste. Enter the consumption rate for each applicable service in the consumption column. Then work across the sheet from left to right to calculate the electrical energy required for each service. Finally, sum the energy consumed by each service to arrive at the total electrical energy consumed. Enter this value in Table C-3 to calculate estimated ship's fuel consumption attributed to electrical use and add to any process driven fuel requirement to produce the total estimated ship's fuel consumed.

Table C-2 Electrical Energy Consumption Worksheet

Service	Total consumption to process 170 kg Shipboard waste (IAW para 5.3.3)	Unit	Multiply	Energy Factor (From Table C-1)	Electrical Energy consumed (kWh)
Electricity		kWh	x	1.0000	
Hot Fresh Water		Liters		0.0581	
Cold Fresh Water		Liters		0.0134	
Sea Water		Liters		0.0001	
Diesel Fuel directly used		Liters		0.0002	
LP Air		Liters		0.0001	

Total Electrical Energy Consumed (Sum)
 Transfer to Table C3

Table C-3 Total Ship's Fuel Usage

Total Electrical Energy Consumed (kWh)	Multiply	Ship's Generator fuel equivalency factor (l/kWh)	Equivalent Ship's Fuel Usage (l)
	x	0.272	

Ship's fuel directly used to process 170 kg of Shipboard Solid Waste (para 5.3.1.6) (Liters)

Total Estimated Ship's Fuel Consumed (sum) (Liters)

ANNEX D – Basis of Payment

SECTION I - Solid Waste Processing Systems

Item 001 – Firm Quantity

The Contractor must deliver (13) Solid Waste Processing System in accordance with the Statement of Work at Annex B and the Technical Statement of Work at Annex C.

Firm unit prices in Canadian dollars, Delivered Duty Paid at destination, Incoterms 2000, including Canadian Custom Duties and Excise Taxes included where applicable, and applicable taxes are extra (transportation cost excluded).

Year 1: 12 months from the Factory Acceptance Test (FAT)
Year 2: 13 to 24 months from the Factory Acceptance Test (FAT)
Year 3: 25 to 36 months from the Factory Acceptance Test (FAT)

	Years	Qty	Unit of Issue	Firm unit prices
Solid Waste Processing Systems	Year 1	4	Each	\$ _____
	Year 2	4	Each	\$ _____
	Year 3	5	Each	\$ _____

Note: The FAT must be completed within 3 months of receiving the Shock, Vibe and EMI certification. The first unit must be delivered within 3 months of completing the FAT.

Item 002 – Transportation Cost (Firm Quantity)

The Contractor must deliver the Solid Waste Processing System to destination as follows:

Destination	Quantity per destination	Unit of Issue	Transportation Cost per unit
Halifax, NS	7	Each	\$ _____
Esquimalt, BC	5	Each	\$ _____
Montreal, QC	1	Each	\$ _____

Firm unit price in Canadian dollars, Delivered Duty Paid at destination, Incoterms 2000, including Canadian Custom Duties and Excise Taxes included where applicable, and applicable Taxes are extra.

The transportation cost will be applied when Canada has identified the applicable quantities and destinations.

Item 003 –Optional Quantity

If this option is exercised, the Contractor must deliver up to four (4) Solid Waste Processing Systems in accordance with the statement of Work at Annex B and the Technical Statement of Work at Annex C.

Firm unit prices of \$_____ in Canadian dollars, Delivered Duty Paid at destination, Incoterms 2000, including Canadian Custom Duties and Excise Taxes included where applicable, and applicable taxes are extra (transportation cost excluded).

The average price per unit for the option quantity can't be less than the average price per unit for the firm quantities

Item 004 – Transportation Cost (Option Quantity)

If this option is exercised, the Contractor must deliver to destination as per the following estimation:

Destination	Unit of Issue	Transportation Cost per unit
Halifax, NS	Each	\$_____
Esquimalt, BC	Each	\$_____
Montreal, QC	Each	\$_____

Firm unit price in Canadian dollars, Delivered Duty Paid at destination, Incoterms 2000, including Canadian Custom Duties and Excise Taxes included where applicable, and applicable Taxes are extra. The transportation cost will be applied when Canada has identified the applicable quantities and destinations.

SECTION II Engineering Support and Training

The Contractor must deliver engineering support and training as per Statement of Work at Annex B and Statement of Technical Requirement at Annex C on as and when required basis using a Task Authorization.

Item 005 – Operation and Maintenance Training courses

The Contractor must provide fifteen (15) operation and maintenance training courses in accordance with 9.2 of the Statement of Work.

Firm price of \$_____ each in Canadian dollars Delivered Duty Paid at destination, Incoterms 2000, including Canadian Custom Duties and Excise Taxes included where applicable, and applicable taxes are extra.

° de l'invitation - Solicitation No.
W8482-178586/A
N° de réf. du client - Client Ref. No.
W8482-178586

N° de la modif - Amd. No.
File No. - N° du dossier
027ism.W8482-178586

Id de l'acheteur - Buyer ID
027ism
N° CCC / CCC No./ N° VME - FMS

Item 006 – Engineering Support and Additional Work Request

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work as determined in accordance with Contract Cost principles 1032-2 (2013-07-16), plus a profit, to a ceiling price of \$_____ (*insert amount at contract award*). Customs duties are included and Applicable Taxes are extra. Payments will be subject to government audit. The results and findings of the government's audit will be conclusive.

The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with Contract Cost Principles 1031-2. Upon completion of the audit, the price will be adjusted to the extent necessary to reflect the results of the audit. If there has been any overpayment, it must be promptly refunded to Canada.

Bidder must complete the table below providing Labour Category and hourly rate in accordance with the Statement of Work.

Labour Category	Rate/Hour

(Item 006 will not be included in the financial evaluation)

Item 007 – Travel and Living Expenses for Engineering Support/Training

The Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal and private vehicle allowances specified in Appendices B, C and D of the [National Joint Council Travel Directive](#), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Contracting Authority. All payments are subject to government audit.

(Item 007 will not be included in the financial evaluation)

Annex E
To: W8482-178586
Dated: 18 July 2018

**TECHNICAL EVALUATION OF BIDS
FOR
HALIFAX CLASS SOLID WASTE PROCESSING SYSTEMS (SWPS)**

GENERAL INFORMATION AND INSTRUCTIONS

It is the responsibility of the Bidder to obtain clarification of the technical requirements contained in Annex C prior to submitting a technical bid.

The Bidder must provide sufficient details in its technical bid to substantiate compliance with Mandatory and Relative Rated requirements. It is essential the elements contained in a technical bid are clear and concise. Failure to provide complete information as requested will be to the Bidder's disadvantage.

The technical bid must indicate how the Bidder's proposed SWPS successfully meets all technical requirements. Simply repeating exact text from Annex C will be to the Bidder's disadvantage as it will result in loss of technical points. Bidders are advised to address each requirement in sufficient detail and to include as much information as possible in their technical bid to support compliance and enable a thorough assessment.

The Bidder must complete and return the Bidder template for Mandatory Requirements (Table E-1) with their technical bid. The Bidder must include the applicable page number(s) and paragraph reference(s) from its technical bid that support compliance with each Mandatory requirement.

The Bidder must complete and return the Bidder template for Relative Rated Requirements (Table E-2) with their technical bid. The Bidder must include the page number(s) and paragraph reference(s) from its technical bid that support compliance with each Relative Rated requirement.

Bidders must not include any financial information whatsoever in their technical bid.

The technical evaluation process will be conducted in two (2) stages. In Stage 1, the technical bid will be evaluated for Mandatory requirements stated in Annex C. All mandatory requirements are listed in Annex C and Table E-1. A technical bid must meet all Mandatory requirements to be considered for contract award. Only once a bid has passed all Mandatory requirements will Stage 2 of the evaluation take place. In Stage 2, the technical bid will be evaluated for Relative Rated requirements stated in Annex C and Table E-2.

An Evaluation Team comprised of representatives from Canada will evaluate technical bids. The Evaluation Team may include representatives from various government departments and agencies.

Technical bids will be evaluated in accordance with the Evaluation Criteria listed below.

MANDATORY REQUIREMENTS EVALUATION CRITERIA

The Mandatory requirements listed below will be evaluated on a simple pass/fail (i.e. compliant/non-compliant) basis. Bidders are required to address each Mandatory requirement in sufficient detail and to include as much information as possible in their technical bid to support compliance and enable a thorough assessment. The evaluation will be based solely on the information contained within the technical bid.

Table E-1 BIDDER TEMPLATE FOR MANDATORY REQUIREMENTS

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.1.1	<p>The SWPS must be capable of processing, without segregating, presorting or preprocessing, shipboard solid waste.</p> <p>The Bidder must state the SWPS is capable of processing shipboard solid waste.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met. 2. Provide system overview description or sales brochure or Technical specification sheet
M 5.1.2	<p>On completion of a full processing cycle, the load of processed waste produced will be handled manually by one operator alone. Therefore, the load must not weigh more than 23 kg in accordance with Publication No. 2007-131: Ergonomic Guidelines for Manual Material Handling.</p> <p>The Bidder must state the processed waste can be handled manually by one operator alone.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met. 2. Provide processed output load weight.
M 5.1.3	<p>Airborne noise levels measured at full load and all other normal operating states must be in accordance with the requirements of CFTO D-03-003-012/SG-000. The solid waste handling compartment must be considered a workshop when considering the SWPS noise level against maximum airborne sound levels acceptable in ship's spaces.</p> <p>The Bidder must state that airborne noise levels are in accordance with CFTO D-03-003-012/SG-000.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met. 2. Provide noise level Test Sheet.

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.2.1	<p>If SWPS contains incineration and/or thermal destruction technologies, a certificate of type approval must be provided in accordance with MARPOL, Annex VI (Appendix IV).</p> <p>The Bidder must state whether or not its SWPS contains incineration and/or thermal destruction technologies. If yes, the Bidder must provide a certificate of type approval.</p>		<ol style="list-style-type: none"> 1. Bidder statement on applicability of the requirement. 2. Provide certificate if applicable.
M 5.2.2	<p>If SWPS contains incineration and/or thermal destruction technologies, the device must be certified as being constructed in accordance with MEPC.244 (66).</p> <p>The Bidder must state whether or not its SWPS contains incineration and/or thermal destruction technologies. If yes, then the Bidder must provide the MEPC. 244 (66) certification.</p>		<ol style="list-style-type: none"> 1. Bidder statement on applicability of the requirement. 2. Provide certificate if applicable
M 5.2.3	<p>The SWPS must not release any harmful air emissions in violation of MARPOL, Annex VI.</p> <p>The Bidder must state that its SWPS does not release any harmful air emission in violation of MARPOL, Annex VI.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met.
M 5.2.5	<p>The SWPS must not contain or emit any ozone depleting substances in accordance with the Federal Halocarbon Regulations, 2003 SOR/2003-289 (FHR) the Ozone-Depleting Substances and Halocarbon Alternative Regulations, SOR/2016-137 (ODSHAR).</p> <p>The Bidder must state that its SWPS does not contain or emit any ozone depleting substances in accordance with FHR and ODSHAR.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met.
M 5.2.6	<p>The SWPS must not release any noxious liquid substances leading to a contravention of MARPOL Annex IV, the Vessel Pollution and Dangerous Chemical Regulations SOR/2012-69 and the <i>Fisheries Act</i> R.S.C., 1985, c. F-14 (VPDCR).</p> <p>The Bidder must state that its SWPS does not release any noxious liquid substances in contravention of MARPOL, Annex IV, VPDCR and the <i>Fisheries Act</i>.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met.

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.2.8	<p>Processed waste must be inert and non-hazardous for 30 days under the environmental conditions in Table 1 (a. and b.) of TSOR Annex C without becoming a safety or environmental hazard (i.e. without fermenting, combusting or producing harmful contaminants). Note that, encapsulating garbage is not an allowable method to meet this requirement.</p> <p>The Bidder must state that the processed waste must be inert and non-hazardous for 30 days.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying requirement met. 2. Specify sterilization method.
M 5.4.1	<p>The SWPS must be installed on the main weather deck (1 deck) in the Solid Waste Handling Compartment (SWHC) on HFX ships. The SWHC has space available for installation of a SWPS on two levels; the lower level and the mezzanine level. SWPS loading and unloading must be performed on the lower level.</p> <p>The Bidder must state that SWPS will be loaded and unloaded on the lower level.</p>		<ol style="list-style-type: none"> 1. Bidder statement certifying loading/unloading position. 2. Provide diagrammatic of loading/unloading position.
M 5.4.2.1	<p>On the lower level, the SWPS must fit within the Primary Equipment Envelope (see TSOR Annex C - Appendix I, Figure 2) and include the operational and maintenance envelopes and +/- 100 mm tolerance in any direction: Width of 3140 mm</p> <p>The Bidder must state the width of their SWPS.</p>		<ol style="list-style-type: none"> 1. Provide technical specification or equipment drawing showing major dimensions.
M 5.4.2.2	<p>On the lower level, the SWPS must fit within the Primary Equipment Envelope (see TSOR Annex C - Appendix I, Figure 2) and include the operational and maintenance envelopes and +/- 100 mm tolerance in any direction: Depth of 2540 mm</p> <p>The Bidder must state the depth of their SWPS.</p>		<ol style="list-style-type: none"> 1. Provide technical specification or equipment drawing showing major dimensions.
M 5.4.7	<p>The maximum wet weight of modules associated with the Bidder's SWPS to be installed on the mezzanine deck must not exceed 3000 kg.</p> <p>The Bidder must state the wet weight of modules to be installed on the mezzanine deck.</p>		<ol style="list-style-type: none"> 1. Provide technical specification showing unit or module total weights.

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.5.3	<p>Wireless components must not be included in the SWPS or associated equipment.</p> <p>The Bidder must state that its SWPS and associated equipment does not contain wireless components.</p>		1. Bidder statement certifying requirement met.
M 5.6.1	<p>A functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, must be featured as part of the Bidder's SWPS.</p> <p>The Bidder must state that a functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, is featured as part of the Bidder's SWPS</p>		1. Bidder statement certifying requirement met.
M 5.6.1.1	<p>A functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, featured as part of the Bidder's SWPS complies with ISO 13850:2015.</p> <p>The Bidder to state that the Emergency Stop button featured as part of the Bidder's SWPS complies with ISO 13850:2015.</p>		1. Bidder statement certifying requirement met.
M 5.6.1.2	<p>A functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, featured as part of the Bidder's SWPS must power down the equipment in a fail-safe mode.</p> <p>The Bidder must state that the Emergency Stop button featured as part of the Bidder's SWPS powers down the equipment in a fail-safe mode.</p>		1. Bidder statement certifying requirement met.
M 5.6.1.3	<p>A functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, featured as part of the Bidder's SWPS must have operation of the emergency stop button clearly stated in the SWPS operating instructions.</p> <p>The Bidder must state that the operation of the emergency stop button is clearly stated in the SWPS operating instructions.</p>		1. Bidder statement certifying requirement met.

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.6.1.4	<p>A functioning physical Emergency Stop button, that can be used to make the entire system safe in case of an emergency situation, featured as part of the Bidder's SWPS must have electrical technical documentation included that demonstrates how the Emergency Stop button is incorporated into the SWPS system. The electrical technical documentation must include, as a minimum, a wiring diagram.</p> <p>The Bidder must provide Electrical technical documentation that demonstrates how the Emergency Stop button is incorporated into the SWPS system. The electrical technical documentation must include, as a minimum, a wiring diagram.</p>		1. Provide technical documentation.
M 5.7.4.1	<p>Any cleaning agents specific to the equipment must be identified by product name and chemical composition and must be safe to store given the environmental conditions indicated in TSOR Annex C para 5.1.11.</p> <p>The Bidder must identify cleaning agents specific to the equipment by product and chemical composition and are safe to store given the environmental conditions indicated in TSOR Annex C para 5.1.11.</p>		1. Provide list of cleaning agents.
M 5.7.4.2	<p>Any cleaning agents specific to the equipment identified by product name and chemical composition, must not produce harmful by-products in accordance with <i>Canada Shipping Act, 2001</i> (2001, c. 26) under normal ship operating conditions.</p> <p>The Bidder must state any cleaning agents specific to the equipment identified by product name and chemical composition do not produce harmful by-products in accordance with <i>Canada Shipping Act, 2001</i> (2001, c. 26) under normal ship operating conditions.</p>		1. Bidder statement certifying requirement met.

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.7.4.3	<p>Any cleaning agents specific to the equipment identified by product name and chemical composition must not contain substances that are toxic, prohibited, restricted, or are subject to notification or consent as per the <i>Canadian Environmental Protection Act</i> S.C. 1999, c. 33.</p> <p>The Bidder must state that any cleaning agents specific to the equipment identified by product name and chemical composition do not contain substances that are toxic, prohibited, restricted, or subject to notification or consent as per the Canadian Environmental Protection Act S.C. 1999, c. 33.</p>		1. Bidder statement certifying requirement met.
M 5.8.1	<p>Any system components in contact with the deck must be constructed of materials impervious to corrosive and erosive effects at all temperatures and pressures encountered during normal operation of the system.</p> <p>The Bidder must state that all system components that come into contact with the deck are constructed of materials that are impervious to corrosion and erosion at all temperatures and pressures during normal operations.</p>		1. Bidder statement certifying requirement met.
M 5.8.3.1	<p>Cadmium must not be used.</p> <p>The Bidder must state that none of the system components contain cadmium.</p>		1. Bidder statement certifying requirement met.
M 5.8.3.2	<p>Chlorosulphonated polyethylene (CSP, trade name "hypalon") and polyvinyl chloride (PVC) must not be used as insulators for electrical cables.</p> <p>The Bidder must state that none of the electrical cable insulation contains CSP and PVC.</p>		1. Bidder statement certifying requirement met.
M 5.8.3.3	<p>Plastic must not be used as structural components.</p> <p>The Bidder must state no plastics are used as structural components.</p>		1. Bidder statement certifying requirement met.

TSOR Ref. ID	Mandatory Requirement	Bid Page(s) # & Reference(s) #	Validation Criteria
M 5.8.4	<p>Materials included in the system design or used during operation, maintenance or repair of the system, must meet the <i>Hazardous Products Act</i> (R.S.C., 1985, c. H-3).</p> <p>The Bidder must state the materials included in the systems design or used during operation, maintenance or repair of the system meet the Hazardous Products Act (R.S.C., 1985, c. H-3).</p>		<p>1. Bidder statement certifying requirement met.</p>
M 5.8.5	<p>Workplace Hazardous Material Information System (WHMIS) material safety data sheets (MSDS), or the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), must be provided for cleaning agents and any other hazardous components used for the proposed system.</p> <p>The Bidder must provide WHMIS MSDS or GHS for cleaning agents and any other hazardous components used for the proposed system.</p>		<p>1. Provide listing and data sheets.</p>

RELATIVE RATED REQUIREMENTS EVALUATION CRITERIA

Relative Rated Requirements will only be evaluated if all Mandatory requirements are met (see Table E-1).

The Relative Rated requirements listed below will be evaluated on a relative ranking weighted-point allocation basis. Bidders are required to address each rated requirement in sufficient detail and to include as much information as possible in their technical bid to support compliance and enable a thorough assessment. If a technical bid is assessed as failing to meet a Relative Rated requirement, at any stage of the technical evaluation, zero points will be allocated for that rated requirement. Technical bids that fail to meet a rated requirement will still be subject to a full technical evaluation. The evaluation will be based solely on the information contained within the technical bid.

Each of the Bidder’s response to a Relative Rated requirement will be compared to each of the other Bidder’s responses to the same rated requirement. Bidder’s responses will be ranked from highest to lowest. The highest ranking Bidder will be ranked 1, the second highest ranking Bidder will be ranked 2 and the third highest ranking Bidder will be ranked 3. Only the top three Bidders will score points. If two or more Bidders have the same response to a rated requirement, or have responses that fall within the “Tie margin” stated in Table E-2, each Bidder will be assigned the same rank for that rated requirement.

Technical scores will then be allocated to the three (3) highest ranking Bidders according to the scoring system below. Every Relative Rated requirement has a pre-defined weighting factor. A weighting factor is a numerical value used to assign significance within the group (i.e. less or more important). The weighting factor will be multiplied to the allocated points to calculate a technical score for each rated requirement. For example, if a Bidder is ranked 2 for a rated requirement with a weighting factor of 5, the Bidder would obtain a technical score of 30 for that rated requirement (i.e. 6 points X 5 weighting factor).

Relative Rated Requirement
 Scoring System

			For Example Purpose Only	
Bidders	Rank	Points	Weighting Factor	Technical Score
Three (3) highest ranking Bidders will be allocated points.	1	10	X 5	50
	2	6		30
	3	3		15
All other Bidders.	Nil	0		0

The table below illustrates an example in which a tie margin is used to determine the appropriate relative ranking and how the resulting points are tabulated for each relative rated requirement. This process will be repeated for each relative rated requirement and the total points will be tabulated for each bidder in order to determine the total technical score for each bidder. The responses for bidders A, B, C, D, and E are fictitious and only used to illustrate how the Relative Rating Evaluation would be conducted.

Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder A Response	Bidder B Response	Bidder C Response	Bidder D Response	Bidder E Response	Comment
The SWPS should reduce the weight of shipboard solid waste; the Bidder must state the shipboard solid waste weight reduction capability of the SWPS expressed as a percentage of the unprocessed weight of the solid waste.	Highest to Lowest	Higher is better	Within 2%	4	Response 93%	Response 27%	Response 89%	Response 63%	Response 92%	Bidder A and E are both rated 1 st because their response is within the specified Tie Margin of 2%. Only the top three Ranks receive points The ranked points are multiplied by the weight factor.
					Rank 1st	Rank 5th	Rank 3rd	Rank 4th	Rank 1st	
					Points 10 x4 = 40	Points 0	Points 3 x4 = 12	Points 0	Points 10 x4 = 40	

Table E-2 BIDDER TEMPLATE – RELATIVE RATED REQUIREMENTS

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.1.2	One operator should be sufficient to operate, load and unload the SWPS. The Bidder must state the number of operators recommended to operate, load and unload the SWPS.	Lowest to Highest	Lower is better	N/A	8		
R 5.1.3	The processing cycle should be completely automated without operator intervention or supervision. The Bidder must state if the processing cycle is fully automated.	Yes / No	Yes is better	N/A	6		
R 5.1.4	The SWPS should reduce the weight of shipboard solid waste. The Bidder must state the shipboard solid waste weight reduction capability of the SWPS expressed as a percentage of the unprocessed weight of the solid waste.	Highest to Lowest	Higher is better	Within 2%	4		
R 5.1.5	The SWPS should reduce the volume of shipboard solid waste. The Bidder must state the shipboard solid waste volume reduction capability of the SWPS expressed as a percentage of the unprocessed volume of the solid waste.	Highest to Lowest	Higher is better	Within 5%	15		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.1.6	<p>The SWPS should be capable of continuous or cyclic operation when processing 170 kg of shipboard solid waste within an 8 hour period from a cold start.</p> <p>The Bidder must state the time to process 170 kg of shipboard solid waste from a cold start to system shut down.</p>	Lowest to Highest	Lower is better	Within 15 minutes	8		
R 5.1.7	<p>The total time required to load the SWPS with shipboard solid waste for each processing cycle to process 170 kg of shipboard solid waste in an 8 hour period should be minimal.</p> <p>The Bidder must state the time required to load the SWPS with shipboard solid waste for each processing cycle.</p>	Lowest to Highest	Lower is better	Within 5 mins	4		
R 5.1.8	<p>The load of shipboard solid waste the SWPS can process in a system operating steady state should be maximized.</p> <p>The Bidder must state the hourly throughput (kg/hr) of shipboard solid waste the SWPS can process.</p>	Highest to Lowest	Higher is better	Within 2 kg	8		
R 5.1.9	<p>System start-up time should be minimal.</p> <p>The Bidder must state the SWPS start-up time.</p>	Lowest to Highest	Lower is better	Within 5 mins	2		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.1.11a	The system should be mechanically secure and capable of continuous operation - Ship compartment Temp Max 50 °C (120 °F) Min 2 °C (35.6 °F). The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		
R 5.1.11b	The system should be capable of continuous operation - Ship compartment Relative Humidity Max 100%. The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		
R 5.1.11c	The system should be capable of continuous operation - Sea Temp Max 32 °C (89.6 °F) Min -2.2 °C (28 °F). The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		
R 5.1.11d	The system should be capable of continuous operation - Roll Max ±10°. The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		
R 5.1.11e	The system should be capable of continuous operation - Pitch Max ±5°. The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		
R 5.1.11f	The system should be capable of continuous operation - Roll - Intermittent Manoeuvres Max ±22.5°. The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.1.11g	The system should be capable of continuous operation - Pitch - Intermittent Manoeuvres Max $\pm 7.5^\circ$. The Bidder must state the SWPS environmental condition limits.	Yes / No	Yes is better	N/A	8		
R 5.2.4a	The system's air emissions should be minimal. The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Total dust (particulates).	Lowest to Highest	Lower is better	Within 1 mg/m ³	15		
R 5.2.4b	The system's air emissions should be minimal. The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Hydrogen chloride.	Lowest to Highest	Lower is better	Within 1 mg/m ³	15		
R 5.2.4c	The system's air emissions should be minimal. The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Hydrogen Fluoride.	Lowest to Highest	Lower is better	Within 0.1 mg/m ³	12		
R 5.2.4d	The system's air emissions should be minimal. The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Sulfur Dioxide.	Lowest to Highest	Lower is better	Within 5 mg/m ³	15		
R 5.2.4e	The system's air emissions should be minimal. The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Nitrogen Oxide.	Lowest to Highest	Lower is better	Within 20 mg/m ³	15		
R 5.2.4f	The system's air emissions should be minimal. The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Carbon monoxide.	Lowest to Highest	Lower is better	Within 5 mg/m ³	15		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.2.4g	<p>The system's air emissions should be minimal.</p> <p>The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Dioxins/Furans^{TEF}.</p>	Lowest to Highest	Lower is better	Within 0.01 ng/m ³	15		
R 5.2.4h	<p>The system's air emissions should be minimal.</p> <p>The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Total Cadmium & Thallium.</p>	Lowest to Highest	Lower is better	Within 0.005 mg/m ³	12		
R 5.2.4i	<p>The system's air emissions should be minimal.</p> <p>The Bidder must state the air emissions associated with the SWPS in accordance with Directive 2000/76/EC Annex V for Mercury.</p>	Lowest to Highest	Lower is better	Within 0.005 mg/m ³	12		
R 5.2.7	<p>Is the SWPS capable of processing Processable Hazardous Waste?</p> <p>The Bidder must state the number of Processable Hazardous Wastes the SWPS is capable of processing.</p>	Highest to Lowest	Higher is better	N/A	7		
R 5.3.1.1	<p>The Bidder may use the ship's available power: 440 VAC, 3 Phase, 60 HZ, maximum 200 Amps in accordance with STANAG 1008, Edition 9: Characteristics of Shipboard Low Voltage Electrical Power Systems in Warships of the North Atlantic Treaty Navies.</p> <p>The Bidder must state if this is required.</p>	Yes / No	No is better	N/A	2		
R 5.3.1.2	<p>The Bidder may use the hot (60°C) and cold fresh water: system pressure 206 - 483 kpa, flow rate 6 l/min. Daily combined consumption over a 24 hour period must not exceed 15 l/hr.</p> <p>The Bidder must state if this is required.</p>	Yes / No	No is better	N/A	2		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.3.1.3	The Bidder may use the low pressure air system: filtered compressed air at a working pressure of 840 kpa (range 630 - 890 kpa) at a maximum flow rate of 19 m ³ /hr. Daily consumption over a 24 hour period must not exceed an average of 0.36 m ³ /hr. The supplied air is operating at -40 °C dew point after passing through the dryers.	Yes / No	No is better	N/A	2		
R 5.3.1.4	The Bidder must state if this is required. The Bidder may use the ship's sea water circulation system: system pressure 816 kpa, flow rate 223 l/min.	Yes / No	No is better	N/A	2		
R 5.3.1.5	The Bidder must state if this is required. The Bidder may use piped drains connected to ship's grey water system or bilge collection system. The Bidder must state if this is required.	Yes / No	No is better	N/A	2		
R 5.3.1.6	If required, Naval Distillate Fuel (NATO Code F-76) will be supplied to the SWPS. The Bidder must state how much fuel is directly consumed to process 170 kg of shipboard solid waste, from a cold start to system shut down.	Lowest to Highest	Lower is better	Within 2 Litres	5		
R 5.3.3	The SWPS should be energy efficient. The Bidder must state the total ship's fuel consumed by the SWPS to process 170 kg of shipboard solid waste using the tables in TSOR Annex C - Appendix III – Energy Efficiency Calculation to facilitate the calculation.	Lowest to Highest	Lower is better	Within 2 Litres	20		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.4.4	<p>The area occupied by the proposed SWPS in the Primary and Secondary Envelopes should be as small as possible.</p> <p>The Bidder must state the area occupied by the proposed SWPS in the primary and secondary envelopes.</p>	Lowest to Highest	Lower is better	0.5 m ²	5		
R 5.4.5	<p>Modification of the mezzanine should not be required. Beneath the mezzanine.</p> <p>The lower level height is restricted to 2060 mm. If more height is required, the Bidder must state mezzanine modification requirements.</p>	Yes / No	No is better	N/A	3		
R 5.4.6	<p>The wet weight of the entire system and ancillaries (e.g. fuel tanks, scrubber, exhaust ducting, base plate, etc.) should be as small as possible.</p> <p>The Bidder must state the wet weight of the entire SWPS.</p>	Lowest to Highest	Lower is better	Within 100 kg	3		
R 5.4.8	<p>The wet weight of modules associated with the Bidder's SWPS to be installed on the mezzanine deck should be as small as possible.</p> <p>The Bidder must state the wet weight of modules to be installed on the mezzanine deck.</p>	Lowest to Highest	Lower is better	Within 50 kg	3		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.4.9	<p>The entire SWPS or each module should be capable of passing through a ship's soft patch opening measuring 1970 mm (height) x 1350 mm (width) x 1700 mm (depth).</p> <p>The Bidder must state the size of the opening required to allow the SWPS to be moved into the space.</p>	Smallest to Largest	Smaller is better	Within 100 mm	4		
R 5.5.1	<p>The SWPS should have provision for remote indication of information, relating to the system operating parameters to ensure monitoring for safe and efficient operation of the SWPS, by interfacing with IPMS (Integrated Platform Management System) via a CAT 5 cable. The communication User Datagram Protocol (UDP) is preferred (Transmission Control Protocol/Internet Protocol [TCP/IP] acceptable) compliant with MODBUS 5 protocol. Further details of IPMS required for integration can be provided upon request.</p> <p>The Bidder must state the provisions for remote indication of information available and the protocols employed.</p>	Yes/No	Yes is better	N/A	3		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.5.2	<p>The SWPS should have common signal grounding with the interfacing equipment in accordance with CFTO D-03-003-005/SF-000.</p> <p>The Bidder must state if the system has common signal grounding with the interfacing equipment in accordance with CFTO D-03-003-005/SF-000.</p>	Yes / No	Yes is better	N/A	3		
R 5.5.4	<p>An exhaust stack will be accommodated should one be required.</p> <p>The Bidder must provide exhaust stack installation requirements if required.</p>	Yes / No	No is better	N/A	6		
R 5.7.1	<p>The system design should be such that all maintenance can be carried out in-situ.</p> <p>The Bidder must state if all maintenance can be carried out in-situ.</p>	Yes / No	Yes is better	N/A	2		
R 5.7.2	<p>The system design should be such that maintenance having a periodicity of less than 30 days can be carried out without dismantling external electrical connections, fittings or piping interfaces. See TSOR Annex C - Appendix II – Maintenance Level Definitions for a definition of maintenance levels.</p> <p>The Bidder must state if routine corrective and preventive maintenance having a periodicity of less than 30 days can be carried out without dismantling external electrical connections, fittings or piping interfaces.</p>	Yes / No	Yes is better	N/A	2		

TSOR Ref. ID	Relative Rated Requirement	Criteria Rating	Criteria Preference	Tie Margin	Weight Factor	Bidder's Response	Bid Page(s) # & Reference(s) #
R 5.7.3	<p>The system design should be such that the average monthly effort to complete all shipboard preventive first level maintenance is minimal (assuming 170 kg of shipboard solid waste per day has been processed for a 30 day period).</p> <p>The Bidder must state the average monthly effort to complete all preventive maintenance in man hours.</p>	Lowest to Highest	Lower is better	Within 15 minutes	3		
R 5.7.5	<p>All spares should be capable of being installed with minimum use of special tools.</p> <p>The Bidder must state all special tools required.</p>	Yes / No	No is better	N/A	2		
R 5.7.6	<p>The total volume required for storage of the system's onboard consumables during at-sea operations (up to a maximum of 6 months) should be as low as possible.</p> <p>The Bidder must state the total volume required for storage of the system's onboard consumables.</p>	Lowest to Highest	Lower is better	Within 0.1 m ³	2		
R 5.8.2	<p>All materials used in the SWPS should be suitable for a marine environment.</p> <p>The Bidder must state all materials used in the SWPS are suitable for a marine environment.</p>	Yes / No	Yes is better	N/A	2		

Solicitation No. - N° de l'invitation
W8482-178586/A
Client Ref. No. - N° de réf. du client
W8482-178586

Amd. No. - N° de la modif.
File No. - N° du dossier
027ism.W8482-178586

Buyer ID - Id de l'acheteur
027ism
CCC No./N° CCC - FMS No./N° VME

ANNEX "F" to PART 3 OF THE BID SOLICITATION

ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts to be paid by any of the following Electronic Payment Instrument(s):

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)

Solicitation No. - N° de l'invitation
W8482-178586/A
Client Ref. No. - N° de réf. du client
W8482-178586

Amd. No. - N° de la modif.
File No. - N° du dossier
027ism.W8482-178586

Buyer ID - Id de l'acheteur
027ism
CCC No./N° CCC - FMS No./N° VME

ANNEX "G" to PART 5 OF THE BID SOLICITATION

FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

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

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\) – Labour's](#) website.

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

Complete both A and B.

A. Check only one of the following:

- A1. The Bidder certifies having no work force in Canada.
- A2. The Bidder certifies being a public sector employer.
- A3. The Bidder certifies being a [federally regulated employer](#) being subject to the [Employment Equity Act](#).
- A4. The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

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

- A5.1. The Bidder certifies already having a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with ESDC-Labour.
- OR**
- A5.2. The Bidder certifies having submitted the [Agreement to Implement Employment Equity \(LAB1168\)](#) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- B1. The Bidder is not a Joint Venture.

OR

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

TASK AUTHORIZATION AUTORISATION DES TÂCHES

<p>All invoices/progress claims must show the reference Contract and Task numbers. Toutes les factures doivent indiquer les numéros du contrat et de la tâche.</p>		Contract no. – N° du contrat
		Task no. – N° de la tâche
Amendment no. – N° de la modification	Increase/Decrease – Augmentation/Réduction	Previous value – Valeur précédente
To – À	<p>TO THE CONTRACTOR</p> <p>You are requested to supply the following services in accordance with the terms of the above reference contract. Only services included in the contract shall be supplied against this task.</p> <p>Please advise the undersigned if the completion date cannot be met. Invoices/progress claims shall be prepared in accordance with the instructions set out in the contract.</p> <p>À L'ENTREPRENEUR</p> <p>Vous êtes prié de fournir les services suivants en conformité des termes du contrat mentionné ci-dessus. Seuls les services mentionnés dans le contrat doivent être fournis à l'appui de cette demande.</p> <p>Prière d'aviser le signataire si la livraison ne peut se faire dans les délais prescrits. Les factures doivent être établies selon les instructions énoncées dans le contrat.</p>	
Delivery location – Expédiez à		
Delivery/Completion date – Date de livraison/d'achèvement		
		<p>_____</p> <p>Date for the Department of National Defence pour le ministère de la Défense nationale</p>
Contract item no. N° d'article du contrat	Services	Cost Prix
	GST/HST TPS/TVH	
	Total	
<p>APPLICABLE ONLY TO PWGSC CONTRACTS: The Contract Authority signature is required when the total value of the DND 626 exceeds the threshold specified in the contract.</p> <p>NE S'APPLIQUE QU' AUX CONTRATS DE TPSGC : La signature de l'autorité contractante est requise lorsque la valeur totale du formulaire DND 626 est supérieure au seuil précisé dans le contrat.</p>		
<p>_____</p> <p>for the Department of Public Works and Government Services pour le ministère des Travaux publics et services gouvernementaux</p>		

**Instructions for completing
DND 626 - Task Authorization**

Contract no.

Enter the PWGSC contract number in full.

Task no.

Enter the sequential Task number.

Amendment no.

Enter the amendment number when the original Task is amended to change the scope or the value.

Increase/Decrease

Enter the increase or decrease total dollar amount including taxes.

Previous value

Enter the previous total dollar amount including taxes.

To

Name of the contractor.

Delivery location

Location where the work will be completed, if other than the contractor's location.

Delivery/Completion date

Completion date for the task.

for the Department of National Defence

Signature of the DND person who has delegated **Authority** for signing DND 626 (level of authority based on the dollar value of the task and the equivalent signing authority in the PAM 1.4). **Note:** the person signing in this block ensures that the work is within the scope of the contract, that sufficient funds remain in the contract to cover this task and that the task is affordable within the Project/Unit budget.

Services

Define the requirement briefly (attach the SOW) and identify the cost of the task using the contractor's quote on the level of effort. The Task must use the basis of payment stipulated in the contract. If there are several basis of payment then list here the one(s) that will apply to the task quote (e.g. milestone payments; per diem rates/labour category hourly rates; travel and living rates; firm price/ceiling price, etc.). All the terms and conditions of the contract apply to this Task Authorization and cannot be ignored or amended for this task. Therefore it is not necessary to restate these general contract terms and conditions on the DND 626 Task form.

Cost

The cost of the Task broken out into the individual costed items in **Services**.

GST/HST

The GST/HST cost as appropriate.

Total

The total cost of the task. The contractor may not exceed this amount without the approval of DND indicated on an amended DND 626. The amendment value may not exceed 50% (or the percentage for amendments established in the contract) of the original value of the task authorization. The total cost of a DND 626, including all amendments, may not exceed the funding limit identified in the contract.

Applicable only to PWGSC contracts

This block only applies to those Task Authorization contracts awarded by PWGSC. The contract will include a specified threshold for DND sole approval of the DND 626 and a percentage for DND to approve amendments to the original DND 626. Tasks that will exceed these thresholds must be passed to the PWGSC Contracting Authority for review and signature prior to authorizing the contractor to begin work.

Note:

Work on the task may not commence prior to the date this form is signed by the DA Authority - for tasks within the DND threshold; and by both DND and PWGSC for those tasks over the DND threshold.

**Instructions pour compléter le formulaire
DND 626 - Autorisation des tâches**

N° du contrat

Inscrivez le numéro du contrat de TPSGC en entier.

N° de la tâche

Inscrivez le numéro de tâche séquentiel.

N° de la modification

Inscrivez le numéro de modification lorsque la tâche originale est modifiée pour en changer la portée.

Augmentation/Réduction

Inscrivez le montant total de l'augmentation ou de la diminution, y compris les taxes.

Valeur précédente

Inscrivez le montant total précédent, y compris les taxes.

À

Nom de l'entrepreneur.

Expédiez à

Endroit où le travail sera effectué, si celui-ci diffère du lieu d'affaires de l'entrepreneur.

Date de livraison/d'achèvement

Date d'achèvement de la tâche.

pour le ministère de la Défense nationale

Signature du représentant du MDN auquel on a délégué le **pouvoir d'approbation** en ce qui a trait à la signature du formulaire DND 626 (niveau d'autorité basé sur la valeur de la tâche et le signataire autorisé équivalent mentionné dans le MAA 1.4). **Nota :** la personne qui signe cette attache de signature confirme que les travaux respectent la portée du contrat, que suffisamment de fonds sont prévus au contrat pour couvrir cette tâche et que le budget alloué à l'unité ou pour le projet le permet.

Services

Définissez brièvement le besoin (joignez l'ET) et établissez le coût de la tâche à l'aide de la soumission de l'entrepreneur selon le niveau de difficulté de celle-ci. Les modalités de paiement stipulées dans le contrat s'appliquent à la tâche. Si plusieurs d'entre elles sont prévues, énumérez ici celle/celles qui s'appliquera/ront à la soumission pour la tâche à accomplir (p.ex. acompte fondé sur les étapes franchies; taux quotidien ou taux horaire établi selon la catégorie de main-d'œuvre; frais de déplacement et de séjour; prix fixe ou prix plafond; etc.). Toutes les modalités du contrat s'appliquent à cette autorisation de tâche et ne peuvent être négligées ou modifiées quant à la tâche en question. Il n'est donc pas nécessaire de répéter ces modalités générales afférentes au contrat sur le formulaire DND 626.

Prix

Mentionnez le coût de la tâche en le répartissant selon les frais afférents à chaque item mentionné dans la rubrique **Services**.

TPS/TVH

Mentionnez le montant de la TPS/TVH, s'il y a lieu.

Total

Mentionnez le coût total de la tâche. L'entrepreneur ne peut dépasser ce montant sans l'approbation du MDN, formulaire DND 626 modifié à l'appui. Le coût de la modification ne peut pas être supérieur à 50 p. 100 du montant initial prévu dans l'autorisation de tâche (ou au pourcentage prévu dans le contrat pour les modifications). Le coût total spécifié dans le formulaire DND 626, y compris toutes les modifications, ne peut dépasser le plafond de financement mentionné dans le contrat.

Ne s'applique qu'aux contrats de TPSGC

Le présent paragraphe s'applique uniquement aux autorisations de tâche accordées par TPSGC. On inscrira dans le formulaire DND 626 un plafond précis qui ne pourra être approuvé que par le MDN et un pourcentage selon lequel le MDN pourra approuver des modifications au formulaire DND 626 original. Les tâches dont le coût dépasse ces plafonds doivent être soumises à l'autorité contractante de TPSGC pour examen et signature avant qu'on autorise l'entrepreneur à débiter les travaux.

Nota :

Les travaux ne peuvent commencer avant la date de signature de ce formulaire par le responsable du MDN, pour les tâches dont le coût est inférieur au plafond établi par le MDN, et par le MDN et TPSGC pour les tâches dont le coût dépasse le plafond établi par le MDN.