



National Defence

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Ottawa (Ontario)
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SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

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

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

Comments - Commentaires

RETURN BIDS TO: RETOURNER LES SOUMISSIONS À :

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Attention : - Attention :
Lyne Lafontaine DLP 5-1-2 / DAAT 5-1-2

Title - Sujet Towed Runway Sweeper		Amendment No. - N° modif. 002
Solicitation No. N° de l'invitation W8476-226512/A	Date of Amendment Date de modification 21 January 2022	
Address enquiries to: - Adresser toute demande de renseignements à : Lyne Lafontaine Telephone No. - N° de telephone E-Mail Address - Courriel Working from home due to Covid-19 Lyne.Laftontaine@forces.gc.ca Pandemic Lockdowns		
Destination See herein - Voir aux présentes		

Instructions: Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.

Instructions : Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

Delivery required Livraison exigée See herein - Voir aux présentes	Delivery offered Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Person authorized to sign on behalf of Vendor/Firm (type or print): La personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie) :	
Name - Nom	Title - Titre
Signature	Date

Solicitation Closes - L'invitation prend fin

At - à :
2:00 PM - 14:00

On - le :
January 28th 2022- 28 janvier 2022

Time Zone - Fuseau Horaire :
Eastern Standard Time (EST)
Heure normale de l'Est (HNE)

THIS SOLICITATION AMENDMENT IS RAISED TO:

1. Provide clarifications and answers to questions from potential suppliers.

QUESTIONS AND ANSWERS

Question 1

*Regarding the above noted RFP, specifically Section 3.9.1 (d):
Is a manual pattern adjustment acceptable?*

Answer 1

Yes, a manual pattern adjustment is acceptable. Please consult revised Purchase Description.

Question 2

Page 15 of 52, para 3.4.1: Our sweeper has a maximum speed of 40 km/h. The majority of our competitors have similar specifications, is this acceptable?

Answer 2

Yes. The transport speed of the sweeper has been reduced to a minimum speed of 40 km/h. The purchase description will be modified to reflect this change. Please consult the revised purchase description.

Question 3

Page 15 of 52, item 3.9.1: our brush has a maximum width of 14 feet, the broom has a total width of 5.23 meters, the brush is 4.19 meters wide. Is this acceptable?

Answer 3

No. As stated in Section 3.9.1 a), the sweeper must be equipped with a 4.8 m minimum length runway broom. The minimum length requirement is a mandatory criteria and cannot be changed.

Question 4

Delivery costs of the optional goods: As I understand it, delivery costs will be confirmed once the contract is awarded with the final destinations and will be invoiced separately with invoices in support of the transport provider. Therefore, no shipping costs are included in the quote.

Response 4

Yes. For the optional goods, the shipping charges are not to be included in the bid. The Contractor will be reimbursed for the actual shipping costs of the Item(s) from the Contractor's Canadian facility or Contractor's Canadian distribution point to the specified Delivery Point(s) without any allowance for profit and/or administrative overhead.

Question 5

Please confirm the make/model/year and hitching information of the towing vehicle for this sweeper.

Answer

No. This information will not be provided.

Question 6

Confirm it is expected the broom core be 4.8m in length and not the sweeping width.

Answer

Yes, the broom core must be a minimum length of 4.8 m.

Question 7

Please confirm if the engine is required to be Tier 4 Final

Answer

As per para 3.1 d) of the purchase description document, the sweeper must conform to all applicable laws, regulations and industrial standards governing manufacture and pollution in effect in Canada at the time of manufacture. Therefore, the engine must be Tier 4 Final.

Question 8

Section 3.9.1, Item J: Specification: The broom must be provided with a full set of 91.4cm diameter wire brushes and spacers installed.

Question: Would 117cm diameter wire brushes be acceptable?

Answer

No. This requirement is mandatory and will not be changed.

Question 9

Confirm towed tracking is not required (rear-steer axle on broom).

Answer

No, towed tracking is not a requirement.

Question 10

Are NATO stock numbers required for all spare parts? Or just the unit?

Answer

No, NATO stock numbers are not required for all spare parts. Requirement will be further discussed at the kick-off meeting.

THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

1. DELETE in its entirety:

Annex B Purchase Description (PD) for Towed Runway Sweeper, 4.8M **dated 20 December 2021.**

REPLACE with:

Annex B Purchase Description (PD) for Towed Runway Sweeper, 4.8M **dated 18 January 2022.**

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.



ANNEX B

PURCHASE DESCRIPTION

FOR

Towed Runway Sweeper, 4.8 metre

ECC 167235

NOTICE



This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées.

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1.0 SCOPE

1.1 Scope

- a) This Purchase Description describes the requirements for a 4.8 m towed broom sweeper intended to clear runways at Royal Canadian Air Force Wings across Canada.

1.2 Instructions

- a) Requirements, which are identified by the word “**must**”, are mandatory. Deviations will not be permitted.
- b) Requirements identified with a “will” define actions to be performed by Canada and require no action or obligation on the Contractor’s part.
- c) Where “**must**” or “will” are not used, the information supplied is for guidance only.
- d) In this document “provided” **must** mean “provided and installed”.
- e) Where a technical certification is referred to in this specification, a copy of the certification or an acceptable Proof of Compliance **must** be supplied for the sweeper when requested by the Technical Authority.
- f) Metric measurements are used to define the requirement. Other measurements are for reference only and may not be exact conversions.
- g) Nominal dimensions reflect a method by which materials or products are generally identified, but which differ from the actual measured dimensions.

1.3 Definitions

- a) “**Equivalent**” - Substitutes and alternatives that are equivalent in product, performance or a standard will be considered for acceptance by the Technical Authority where Proof of Compliance for equivalency for the respective requirement is provided for evaluation.
- b) “**Sweeper**” – The entire trailer including all systems and sub-systems, in a complete manufactured state in accordance with the requirements in this Purchase Description.
- c) “**5th percentile adult female**” – As defined in the *Motor Vehicle Safety Regulations (C.R.C., c. 1038)* a person having as physical characteristics a mass of 46.3 kg, height of 1499 mm, erect sitting height of 785 mm, normal sitting height of 752 mm, hip sitting breadth of 325 mm, hip sitting circumference of 925 mm, waist sitting circumference of 599 mm, chest depth of 191 mm, bust circumference of 775 mm, chest upper circumference of 757 mm, chest lower circumference of 676 mm, knee height of 455 mm, popliteal height of 356 mm, elbow rest height of 180 mm, thigh clearance height of 104 mm, buttock-to-knee length of 518 mm, buttock-to-poples length of 432 mm, elbow-to-elbow breadth of 312 mm and seat breadth of 312 mm.
- d) “**95th percentile adult male**” – As defined in the *Motor Vehicle Safety Regulations (C.R.C., c. 1038)* a person having as physical characteristics a mass of 97.5 kg, height of 1849 mm, erect sitting height of 965 mm, normal sitting height of 930 mm, hip sitting breadth of 419 mm, hip

sitting circumference of 1199 mm, waist sitting circumference of 1080 mm, chest depth of 267 mm, chest circumference of 1130 mm, knee height of 594 mm, popliteal height of 490 mm, elbow rest height of 295 mm, thigh clearance height of 175 mm, buttock-to-knee length of 640 mm, buttock-to-poples length of 549 mm, elbow-to-elbow breadth of 506 mm and seat breadth of 404 mm.

- e) **“Gross Axle Weight Rating (GAWR)”** - The value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces.
- f) **“Gross Vehicle Weight Rating (GVWR)”** - The value specified by the vehicle manufacturer as the loaded weight of a single vehicle.

2.0 APPLICABLE DOCUMENTS

2.1 Applicable Documents

- a) The following documents form part of this Purchase Description. Canada will not be supplying these documents. Sources are as shown:

Canadian Occupational Health and Safety Regulations (COHSR)

Yearbook - Tire and Rim Association Inc.

CAN/CGSB 3.517 - Diesel Fuel

Advisory Circulars 300 Series – Aerodromes and Airports (for additional information and guidance only)

3.0 REQUIREMENTS

3.1 Standard Design

- a) **Latest Model** - The sweeper **must** be the manufacturer's latest model.
- b) **Industry Acceptability** - The sweeper design **must** have demonstrated industry acceptability by having been manufactured and sold commercially for at least 2 years, or be manufactured by a company that has at least 5 years of experience in design and manufacturing of a comparable type of equipment of equivalent or greater complexity.
- c) **Engineering Certification** - Original manufacturers engineering certification **must** be provided upon request for major drive train components, and major equipment systems and assemblies, to demonstrate that assemblies are used within their design limitations.
- d) **Regulations** – The sweeper **must** conform to all applicable laws, regulations and industrial standards governing manufacture, safety, noise levels and pollution in effect in Canada at the time of manufacture. International equivalent laws, regulations, and industrial standards will be accepted only if certified for equivalency by a professional engineer.

- e) **Published Ratings** - The sweeper **must** have system and component capacities equivalent to published ratings (i.e. product or component brochures).
- f) **Standard Components** - The sweeper **must** include all standard components, equipment and accessories for the model offered, although they may not be specifically described in this Purchase Description.
- g) **Spare Parts** - The manufacturer **must** select components readily available for a minimum period of 10 years from the date of manufacture.
- h) **Measurements** – Values for labels and indicators provided with equipment **must** be presented in metric units, or **must** have both imperial and metric units with metric dominant.
- i) **Foreign Object Debris (FOD)** - To prevent FOD, all loose metal parts **must** be securely attached to the vehicle with wire lanyards. If removable panels are provided, they **must** be attached with captive fasteners.

3.2 Operating Conditions

3.2.1 Weather

- a) The sweeper **must** operate under the extremes of weather conditions found in Canada in temperatures ranging from -40 to 37° C (-40 to 99° F) and cold starting from -40°C (-40°F) with external aids as specified in Paragraph 3.6.2.

3.2.2 Terrain

- a) The sweeper **must** operate on concrete and asphalt surfaces that include year-round operations on rain, snow, hard packed snow, wet snow and ice, with up to 2.0% (percent) slope in all weather conditions.

3.3 Safety Standards

3.3.1 Human Factors Engineering

- a) The sweeper, all systems, and components **must** comply with the relevant sections of the COHSR.
- b) The sweeper **must** be manufactured for safety and ease of use by CAF users with anthropometric characteristic measurements ranging from 95th percentile male to 5th percentile female.
- c) The sweeper **must** be equipped with handles and steps sized and positioned to accommodate CAF users with anthropometric characteristic measurements ranging from 95th percentile male to 5th percentile female.
- d) The sweeper **must** be equipped, with warning and instruction plates, non-slip walking surfaces and heat shields, for operator safety.

3.4 Sweeper Performance, Ratings and Dimensions

3.4.1 Performance

- a) The sweeper, at GVWR, **must** sustain a minimum transport speed of 40 km/h.
- b) The sweeper **must** operate at speeds of up to 40 km/h through a minimum snow density of 240 kg/m³.
- c) The sweeper **must** have both an angle of approach and an angle of departure of at least 8 degrees.
- d) The sweeper **must** remove at least 80% of snow slush with a density of 640 kg/m³ to a depth of 13 mm.

3.4.2 Weight Ratings

- a) The total load on each axle of the sweeper **must** not exceed the GAWR for that axle.

3.5 Frame

- a) The sweeper **must** be equipped with a replaceable 50.8 mm kingpin connection for a fifth wheel.
- b) Two safety chains with hooks **must** be provided.
- c) Flexible air brake hoses with glad hand connectors **must** be provided.
- d) An electrical connector to connect to a prime mover **must** be provided.
- e) If required, a hydraulically activated, heavy duty landing gear **must** be provided.
- f) The switch to activate the landing gear **must** be provided at the landing gear.

3.6 Engine

- a) The engine **must** operate on ultra-low sulphur diesel fuel to the CAN/CGSB Standard 3.517.
- b) The engine **must** be in a weatherproof enclosure with maintenance access.

3.6.1 Engine Components

- a) A replaceable air filter(s) **must** be provided.
- b) A combustion air cleaning system **must** be provided, with an air cleaner restriction indicator visible to the operator.
- c) A full flow replaceable oil filter **must** be installed.
- d) An engine shutdown or de-rate system **must** be provided, including a visual warning indicator visible from the operator position.

3.6.2 Cold Weather Starting Aids

- a) A low temperature starting aid **must** be provided to meet the operating conditions specified in Paragraph 3.2
- b) A thermostatically controlled in-line fuel heater **must** be provided.
- c) A thermostatically controlled water separator/fuel filter **must** be provided to preheat diesel fuel prior to starting.
- d) A 110-volt engine block heater(s) **must** be provided
- e) A 110-volt battery heater(s) **must** be provided.
- f) The battery **must** be housed in an insulated battery box, blanket or heated enclosure.
- g) All cold weather aids **must** be connected with a cover-protected, external electrical power plug, powered through dedicated shoreline receptacles.
- h) The cold weather aid receptacles **must** be grouped together.

3.6.3 Exhaust System

- a) The exhaust system **must** prevent entry of rain.
- b) If a Diesel Particulate Filter (DPF) is used, there **must** be manual regeneration controls.

3.6.4 Fuel Tank

- a) If more than one fuel tank is used, separate fuel gauges **must** be provided

3.7 Braking System

- a) The sweeper **must** be equipped with air-actuated braking system on the main axle.
- b) The braking system **must** include brake housing dust shields on all wheels.

3.8 Wheels, Rims and Tires

- a) Tires and rims **must** be selected in accordance with the Tire and Rim Association Handbook.
- b) Tires **must** be tubeless, steel belted, radial ply construction, of the open type tread design.
- c) The wheels, tires and rims **must** include valve extensions for inner tires, if used, to allow for easy access.
- d) For each tire size provided, one full size spare tire assembly **must** be delivered with each sweeper.

3.9 Sweeper Requirements

3.9.1 Broom

- a) A runway broom with a minimum length of 4.8 m **must** be installed on the sweeper.
- b) The broom **must** have a variable angle of travel of at least 30 degrees in either direction from the straight ahead position.
- c) A remote operated broom elevation mechanism for raising the broom during transport **must** be provided.
- d) The broom **must** have manual or automatic pattern adjustment.
- e) The broom **must** be equipped with a minimum of two caster wheels with easily accessible grease fittings.
- f) The broom **must** be equipped with a spring-loaded, adjustable, friction brake to eliminate castor wheel shimmy at all speeds.
- g) The broom **must** be designed to prevent the accumulation of snow on the broom.
- h) The broom **must** be equipped with an adjustable, bolt-on stripper plate, if required.
- i) The broom **must** be provided with a broom cover that shields the upper half of the broom with and adjustable front snow deflector.
- j) The broom **must** be provided with a full set of flat 91.4 cm diameter wire brushes and spacers installed.
- k) The broom core **must** be 273 mm (10.75 in) diameter and be balanced.
- l) A spare broom core **must** be provided with each sweeper.
- m) A set of broom carts and special tools required to remove and install the broom **must** be provided with each sweeper.
- n) A means for the emergency raising of the broom in the event of a power failure **must** be provided.

3.9.2 Air Blast

- a) The sweeper **must** be provided with a blower with an outlet flow rate of at least 566 cu. m/min (20,000 CFM).
- b) The blower **must** be designed to clear runway lights.
- c) The blower airflow **must** automatically adjust to the height of the broom.

3.9.3 Accessories

- a) The sweeper **must** be equipped with a 4.5 kg (10 lb) ULC approved and rechargeable dry chemical fire extinguisher, type ABC 10G, equipped with a pressure gauge, service inspection tag, and accessible to the operator from ground level.

- b) The sweeper **must** have a licence plate holder at the rear with a LED light.

3.9.4 Remote Control

- a) A remote control box for the sweeper **must** be provided.
- b) The control box **must** have sufficient cable to reach from the sweeper to the cab of the prime mover. The length of the cable will be determined after contract award.
- c) A suitable mounting bracket or pedestal to secure the remote control **must** be provided to be installed in the prime mover cab.
- d) The control box **must** have a weatherproof enclosure.
- e) All controls, including lights, required to operate the sweeper **must** be provided.

3.10 Hydraulic System

- a) The sweeper **must** be equipped with a hydraulic system.
- b) Hydraulic oil cooler(s) **must** be provided.
- c) Hydraulic oil heater(s) **must** be provided.
- d) Hydraulic hoses **must** be grouped together and clearly identified.
- e) Clearly marked test ports **must** be provided.
- f) Hydraulic pressure test gauge with applicable fittings and hoses **must** be provided with each unit.

3.11 Automatic Lubrication System

- a) The sweeper **must** be equipped with a Groenveld auto-lubrication systems or equivalent.
- b) The system **must** include a grease reservoir, accessible for level checking and refilling.
- c) The grease reservoir(s) **must** be full on delivery.
- d) Grease level indicator(s) **must** be provided.
- e) An adjustable timer **must** be installed to control the greasing intervals.
- f) All grease points that are not serviced by the auto-lubrication system **must** be clearly identified.

3.12 Electrical System

- a) The sweeper **must** be equipped with 12-volt or 24-volt electrical systems.
- b) Wiring **must** be protected by insulating grommets, where passing through metal.

- c) Wiring **must** be marked, at a minimum, every 30.5 cm with a permanent identification.
- d) Heavy-duty, maintenance free batteries **must** be provided in an enclosure and secured in an accessible location.
- e) A master disconnect switch, accessible from the ground, **must** be provided.

3.13 **Lighting**

- a) The sweeper **must** be equipped with LED lights.
- b) Lights **must** be recessed or otherwise protected from damage with all components accessible for servicing.
- c) The sweeper **must** be equipped with minimum one roof mounted amber LED stroboscopic beacon light, mounted at the highest point, to allow for 360-degree visibility.
- d) At least two (2) adjustable work lights **must** be provided, to illuminate the front of the sweeper broom.
- e) At least two (2) work lights **must** be provided in the sweeper engine enclosure.
- f) Marker lights **must** be provided at each end of the broom head.

3.14 **Controls**

- a) Each control **must** be permanently marked to identify the function, in both English and French or international symbols as defined by SAE J1362.

3.15 **Instruments**

- a) Instruments **must** be metric and visible in all lighting conditions.
- b) An ammeter, voltmeter, or charging indicator **must** be provided.
- c) An engine coolant temperature indicator **must** be provided.
- d) An engine oil pressure indicator **must** be provided.
- e) An hour-meter with numeric display, which accurately records accumulated engine running time up to at least 9,999 hours **must** be provided.
- f) A fuel level indicator **must** be provided.
- g) An engine tachometer **must** be provided.
- h) Any other instruments required for the safe operation of the sweeper **must** be provided.

3.16 **Paint**

- a) All metal surfaces **must** be protected.
- b) The prime coating **must** be a high durability, corrosion resistant type, such as an epoxy.
- c) The colour **must** be AMS-STD-595A #13507 or equivalent.

3.17 Retroreflective Tape

- a) Retroreflective tape **must** be placed on all extremities of the sweeper to increase visibility on the airfield.

3.18 Corrosion Protection

- a) The sweeper **must** be designed and manufactured to prevent galvanic corrosion.
- b) The materials used in the sweeper manufacturing **must** resist damage or deterioration as a result of cleaning with hot or cold water, steam, or detergents.

3.19 Warning, Markings and Instruction Plates

- a) All identification, instructional, and warning labels **must** be in both English and French or International symbols defined in SAE J1362.
- b) All identification, instructional, and warning labels **must** be within view of the operator.
- c) All gauges and controls and **must** be permanently labelled.

3.19.1 Sweeper Identification

- a) The sweeper identification information **must** be permanently affixed in a conspicuous and protected location.
- b) Identification information **must** include the manufacturer's name, model number, serial number, and model year.
- c) Identification information **must** include the GVWR and GAWR ratings.

4.0 INTEGRATED LOGISTIC SUPPORT (ILS)

4.1 Sweeper Manuals

- a) All manuals required for the description, operation, maintenance and repair of the complete equipment, including sub-systems, **must** be provided.

4.1.1 Operator's Manuals

- a) The operator's manuals **must** be in both English and French.
- b) The operator's manuals **must** include instructions for the safe operation of the sweeper.

- c) The operator's manuals **must** include daily operator maintenance instructions and checks (including lubrication).
- d) The operator's manuals **must** include safety warnings.

4.1.2 Parts Manual(s)

- a) The parts manual(s) **must** be in English (and French is desirable).
- b) The parts manual **must** have illustrations showing all components of the sweeper including equipment and accessories from other manufacturers that are supplied to meet the requirements of the contract, with numbers for the itemization of the parts.
- c) The parts manual **must** have a listing for all itemized parts showing the Original Equipment Manufacturers (OEM) part number, the part name and a brief description of the item.
- d) The parts manual **must** cross reference the OEM part number to the correct illustration and item number.
- e) The parts manual **must** have a representation of both English and French warning signs and identification labels delivered on the equipment.

4.1.3 Maintenance Manuals

- a) The maintenance manual **must** be both in English and French.
- b) The maintenance manual **must** include a troubleshooting guide, showing the steps and tests required to determine the exact cause of a problem and an explanation of the steps required to correct a problem.
- c) The maintenance manual **must** include a listing of the necessary tolerances, torque levels, fluid volume, and special tools as per 4.3.4 (including item part numbers).
- d) The maintenance manual **must** include information on the order of disassembly and assembly of the systems and components of the Sweeper.

4.1.4 Manual Delivery to Technical Authority

- a) Sample manuals **must** be submitted to the Technical Authority (TA) prior to the delivery of the sweepers for each model and or sub-system for approval. Sample manuals will not be returned. TA will provide approval or comments on the manuals within 30 calendar days.
- b) One (1) complete set of approved manuals (Operator's, Maintenance, and Parts) in electronic format **must** be delivered to the Technical Authority.

4.1.5 Manual Delivery with Sweeper

- a) One (1) complete set of manuals (Operator's, Maintenance, and Parts) **must** accompany each sweeper.

- b) The manuals **must** be in paper and electronic format.

4.1.6 Electronic Format

- a) Approved copies of the electronic format manuals **must** be delivered on CD/DVD-ROM.
- b) CD/DVD-ROM **must not** require installation, password and/or Internet connection to be accessed and **must** be an unlocked PDF in a searchable format.

4.1.7 Provisional Manuals

- a) In the event that approved manuals are not available at the time of delivery of the equipment, manuals marked "Provisional" **must** be supplied with the equipment.
- b) The contractor **must** deliver replacement approved manuals to all destinations where Provisional manuals were delivered.

4.1.8 Manual Supplements

- a) The contractor **must** supply manual supplements (Operator's, Maintenance and Parts) to support dealer-installed equipment not covered in the sweeper Manuals.
- b) Manual supplements **must** be delivered in accordance with 4.1.4 and 4.1.5.

4.1.9 Changes to Manuals

- a) During the period of the contract, changes to equipment, which affect the contents of manuals, **must** be reflected in the revision of the electronic and paper version of the manuals.
- b) Changes to the manuals **must** conform to the same format and presentation requirements as the original manuals.
- c) The revised electronic version of the manual **must** be sent to the Technical Authority by the Contractor for approval prior to making change(s) on the equipment.
- d) The TA will provide approval or comments on the manuals within 30 calendar days.

4.2 Warranty Letter

- a) The warranty letter **must** include additional warranty coverage of sub-systems and a copy of the warranty letter from each sub-system's Original Equipment Manufacturer (OEM).
- b) The warranty letter **must** include warranty period as negotiated in the contract.
- c) The warranty letter **must** include Contractor contact information, name and phone number, for warranty support.

4.2.1 Warranty Letter Delivery

- a) The Contractor **must** provide a warranty letter in both English and French to the Technical Authority and with each sweeper. If the Technical Authority requires the letter to be in DND format, then they will provide the Contractor a template for the DND acceptable format of the warranty letter.

4.3 Other ILS Deliverables to Technical Authority

- a) All ILS deliverables in Paragraph 4.3 **must** be delivered to the Technical Authority by the first sweeper delivery at the latest.

4.3.1 Data Summary

- a) The Contractor **must** provide a Data Summary in both English and French for each make and model of sweeper by completing Technical Authority's template with data and a sweeper picture.

4.3.2 Photographs

- a) The Contractor **must** provide photographs in colour, taken against a plain background, and in digital JPEG format with a minimum 10-megapixel resolution.
- b) One left front three-quarter view of a completed unit **must** be provided.
- c) One right rear three-quarter view of a completed unit **must** be provided.

4.3.3 Dimensioned Drawing

- a) One side and front view dimensioned drawing showing the sweeper dimensions **must** be provided.

4.3.4 Special Tools List - The Contractor **must** provide an itemized list of specific special tools required for the servicing and repair of the sweeper and include:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Quantity recommended per delivery location;
- e) Unit price; and
- f) Unit of issue.

4.3.5 Preventive Maintenance Replacement Parts Kit List (PMRPKL) - The contractor **must** provide a list detailing the parts that are required to perform preventive maintenance to the system for a period of 12 months, and include:

- a) Item name;

- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Manufacturer's NATO Supply code (NCAGE) or name and address;
- e) NSN (NATO Stock Number) (if known);
- f) Quantity per equipment;
- g) Quantity recommended;
- h) Unit price; and
- i) Unit of issue.

4.3.6 **Recommended Spare Parts List (RSPL)** - The Contractor **must** provide a list detailing the spare parts deemed necessary to maintain the sweeper for a period of 24 months exclusive of any warranty period, and include:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Manufacturer's NATO Supply code (NCAGE) or name and address;
- e) NSN (NATO Stock Number) (if known);
- f) Quantity per equipment;
- g) Quantity recommended;
- h) Unit price; and
- i) Unit of issue.

4.3.7 **Supplementary Provisioning Technical Documentation (SPTD)**

- a) The SPTD **must** be available for each item appearing on the RSPL as defined in 4.3.6.
- b) The Contractor **must** provide SPTD only when and for the items requested by the DND TA.
- c) For item identification and cataloguing purposes, the technical data supplied **must** be sufficiently comprehensive to allow DND to classify and fully describe the items within the NATO codification system.

4.3.8 **Safety Recalls and Servicing Data**

- a) Safety recalls, and manufacturer's technical service bulletins, or equivalent **must** be provided to the technical authority and the final delivery locations on a continuing basis, throughout the life expectancy of the sweeper or for no less than 10 years.

4.4 Initial Parts Kit

- a) One initial parts kit **must** be delivered with each sweeper.
- b) Each kit **must** include a complete set of filters and filter elements from the Original Equipment Manufacturer (OEM) required in the first 12 months of service.

4.5 Training

4.5.1 Operator Training

- a) The Contractor **must** provide an operator training course.
- b) The course **must** be given at the delivery destinations.
- c) The course **must** be available in both English and French.
- d) The course **must** have minimum duration of two (2) days to provide training for up to eight (8) operators and have the final dates arranged with the Technical Authority after contract award.
- e) The course **must** have a syllabus or course outline and schedule available for review and approval by the Technical Authority seven (7) days prior to the course commencement date.
- f) After completion of the course the Contractor **must** have a "PROOF OF OPERATOR TRAINING" certificate signed by a Crown Representative for the destination. The Technical Authority will supply this document in an electronic format.

4.5.2 Operator Training Curriculum

- a) Safety precautions to be observed while operating and servicing the sweeper **must** be included in the curriculum.
- b) Sweeper operating characteristics **must** be included in the curriculum.
- c) Sweeper operating procedures **must** be included in the curriculum.
- d) Pre-operating and pre-shutdown procedures **must** be included in the curriculum.
- e) Daily and weekly operator servicing procedures **must** be included in the curriculum.

4.5.3 Maintenance Training

- a) The Contractor **must** provide a maintenance training course.
- b) The course **must** be given at the delivery destination.

- c) The course **must** be available in both English and French.
- d) The course **must** have a minimum duration of two (2) days to provide training of up to eight (8) maintenance personnel and have the final dates arranged with the Technical Authority after contract award.
- e) The course **must** have a syllabus or course outline and schedule available for review and approval by the Technical Authority seven (7) days prior to the course commencement date.
- f) After completion of the course, the Contractor **must** have a “*PROOF OF MAINTENANCE TRAINING*” certificate signed by a Canada Representative for the destination. The Technical Authority will supply this document in an electronic format.

4.5.4 Maintenance Training Curriculum

- a) Operator’s training detailed in Paragraph 4.5.2 **must** be included in the maintenance training curriculum.
- b) Operation and maintenance safety precautions **must** be included in the curriculum.
- c) Preventive maintenance including servicing schedules (10 % of classroom time) **must** be included in the curriculum.
- d) Trouble shooting, testing, and adjustments (70 % of classroom time) **must** be included in the curriculum.
- e) Utilization of special tools and test equipment **must** be included in the curriculum.

4.5.5 Training Materials

- a) Training materials **must** be provided to each attendee and be available in French for locations in Quebec.
- b) Training materials **must** include a list of topics to be covered;
- c) Training materials **must** include an approximate timetable showing when topics are scheduled to be covered and how much time is scheduled for each topic;
- d) Training materials **must** list any reference material; and
- e) Training materials **must** make available any reference material used.