

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

**Bid Receiving  
PWGSC  
33 City Centre Drive  
Suite 480  
Mississauga  
Ontario  
L5B 2N5  
Bid Fax: (905) 615-2095**

**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**

<b>Title - Sujet</b> Gravimetric Feeder	
<b>Solicitation No. - N° de l'invitation</b> 31030-137455/A	<b>Date</b> 2013-11-25
<b>Client Reference No. - N° de référence du client</b> 31030-137455	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$TOR-002-6439	
<b>File No. - N° de dossier</b> TOR-3-36186 (002)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-01-06</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Standard Time EST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Callahan, Kaye	<b>Buyer Id - Id de l'acheteur</b> tor002
<b>Telephone No. - N° de téléphone</b> (905) 615-2071 ( )	<b>FAX No. - N° de FAX</b> (905) 615-2060
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> NATIONAL RESEARCH COUNCIL CANADA 50 CASMIR COURT, CONCORD, ON L4K 4J5	

**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**

Public Works and Government Services Canada  
Ontario Region  
33 City Centre Drive  
Suite 480  
Mississauga  
Ontario  
L5B 2N5

<b>Delivery Required - Livraison exigée</b> 2014-03-28	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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## PART 1 - GENERAL INFORMATION

### 1. Security Requirement

There is no security requirement associated with this bid solicitation.

### 2. Requirement

The requirement is detailed under Article 2 of the resulting contract clauses.

### 3. 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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 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>) 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 (2013-06-01) 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: sixty (60) days

Insert: ninety (90) days

### 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.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

### 3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) 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 questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

### 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.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

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

Section I: Technical Bid (3 hard copies)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation 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 explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

### **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

#### **1.1 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

### **Section III: Certifications**

Bidders must submit the certifications required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **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.

#### **1.1 Technical Evaluation**

##### **1.1.1 Mandatory Technical Criteria**

Bidders must meet all mandatory criteria. Failure to meet any one of the mandatory criteria will result in your bid being declared non-responsive.

- (a) The Bidder must have successfully designed and manufactured a minimum of three (3) of the same or \*similar systems within the last 5 years of the bid closing date for different clients. At least one (1) of the systems has to involve integrating equipment to, and programming Coperion twin screw extruders using Siemens PLC.

The Bidder must provide, with their bid, the following information for the three (3) different clients:

Client contact information must include:

- o Company name;
- o Location;
- o Contact name;
- o Current telephone number;
- o Current email address; and
- o Description of the designed and manufactured system.

Each Client will be contacted to validate the information and to validate successful completion of contract. If NRC cannot contact a reference after 3 attempts on separate days the reference will be considered invalid. A Bidder must have 3 valid references to meet this criteria.

\* similar - gravimetric feeder that conveys non-flowing materials at a metered and continuous rate

(b) The Bidder's proposed equipment must comply with Annex A of equipment specification for a Chopped-Fibre Gravimetric Feeder System, Loader/Dump station. The proposed equipment must meet the Mandatory Technical Requirements at Sections 4.1, and 4.2 of Annex A, Requirement.

The Bidder must submit, with their bid, supporting technical documents such as: literature, brochures and/or specifications for their proposed system, which clearly demonstrates that their proposed system meets the specifications listed in Annex A, 4.1 and 4.2. If any of the equipment specifications are missing from the supporting documentation, then the Bidder must address separately, how it meets that particular equipment specification.

(c) The Bidder must submit, with their bid, a preliminary project schedule, including major project milestones, deliverables, activities and delivery dates to demonstrate delivery, installation, programming, integration, commissioning and training can be completed by 28 March 2014.

Anticipated award date is 13 January 2014.

## 1.2 Financial Evaluation

1.2.1 The Bidder must submit their financial bid in accordance with Annex B, Basis of Payment.

1.2.2 The price used in the evaluation will be the firm lot price for the system.

1.2.3 *SACC Manual* Clause A0220T (2013-04-25), Evaluation of Price

## 2. Basis of Selection

2.1 A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

## PART 5 - CERTIFICATIONS

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

The certifications provided by bidders to Canada are subject to verification by Canada at all times. 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 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 with this request will also render the bid non-responsive or will constitute a default under the Contract.

## **1. Mandatory Certifications Required Precedent to Contract Award**

### **1.1 Code of Conduct and Certifications - Related documentation**

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

### **1.2 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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from [Human Resources and Skills Development Canada \(HRSDC\) - Labour's website](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml).

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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list at the time of contract award.

## **PART 6 - RESULTING CONTRACT CLAUSES**

### **1. Security Requirement**

There is no security requirement applicable to this Contract.

### **2. Requirement**

The Contractor must provide the Gravimetric Feeder in accordance with the Requirement at Annex "A" and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_.

### **3. 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.

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### **3.1 General Conditions**

2010A (2013-04-25) General Conditions - Goods (Medium Complexity) apply to and form part of the Contract.

### **3.2 Supplemental General Conditions**

4002 (2010-08-16) Software Development or Modification Services apply to and form part of the Contract.

## **4. Term of Contract**

### **4.1 Delivery Date**

All the deliverables must be received on or before 28 March 2014.

## **5. Authorities**

### **5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Kaye Callahan  
Title: Supply Team Leader  
Public Works and Government Services Canada  
Acquisitions Branch  
Ontario Region  
33 City Centre Dr., Ste. 480  
Mississauga, ON  
L2B 2N1

Telephone: 905-615-2071  
Facsimile: 905-615-2060  
E-mail address: [kaye.callahan@pwgsc.gc.ca](mailto:kaye.callahan@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.

**5.2 Project Authority ( to be provided upon award)**

The Project Authority for the Contract is:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone : \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

The Project 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 Project Authority, however the Project 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.

**5.3 Contractor's Representative**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone : \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

**6. Payment**

**6.1 Basis of Payment - Firm Price**

Contractor will be paid the firm lot price as specified in Annex "B", for a cost of \$\_\_\_\_\_. Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

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.

**6.1 Single Payment**

SACC *Manual* clause H1000C (2008-05-12) Single Payment

## 7. 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 address shown on page 1 of the Contract for certification and payment.
  - b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

## 8. Certifications

### 8.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## 9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_.

## 10. Priority of Documents

If there is a discrepancy between the wording 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 4002 (2010-08-16) Software Development or Modification Services;
- (c) the general conditions 2010A (2013-04-25) Goods (Medium Complexity);
- (d) Annex A, Requirement;
- (e) Annex B, Basis of Payment ;
- (f) the Contractor's bid dated \_\_\_\_\_

## 11. SACC Manual Clauses

B1501C (2006-06-16) Electrical Equipment  
G1005C (2008-05-12) Insurance

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## **ANNEX A REQUIREMENT**

**TITLE:** Chopped-fibre Gravimetric Feeder System for D-LFT Thermoplastic Composite Experimental Production Line.

### **1.0 REQUIREMENT**

National Research Council Canada requires a chopped-fibre gravimetric feeding system for the Magna-NRC Composites Centre of Excellence as part of a project to develop natural and carbon fibre reinforced thermoplastic composites. The work includes the supply and delivery of the system, installation, programming, integration, and commissioning of the system to provide a turnkey solution and training. The equipment must be in accordance with Section 4.0 below. All work is to be completed by 28 March 2014.

### **2.0 BACKGROUND**

The Magna-NRC Composites Centre of Excellence (MNCCE) is a research and development centre created under a partnership between Magna International and the National Research Council Canada (NRC). The mandate of the centre is to develop composite technology for the Canadian and global automotive industries. The centre is equipped with leading-edge processing and moulding equipment for polymer composites such as Direct Long Fibre Thermoplastics (D-LFT), High Pressure Resin Transfer Moulding (HP-RTM) and Sheet Moulding Compound (SMC).

The NRC research team at the Magna-NRC Composites Centre of Excellence is currently working on the development of a manufacturing technology involving the use of glass, carbon and natural chopped fibres as reinforcement for the production of thermoplastic-based composite materials on an in-line compounding system. A critical part in the processing technique is the feeding of chopped fibres into the compounding equipment. The process of feeding chopped fibres (1/2 inch or less) and finely ground materials such as wood or rice hulls (1/16 inch or less) is of relatively common practice in industry. However consistent feeding of these fibres at a steady rate into conventional twin screw compounders can be a challenging task.

NRC has a Coperion ZSK-70 twin screw compounder which has the capability of feeding multiple fibre rovings in barrel section 5 (mid section of the nine barrel section assembly) of the equipment. The equipment did not have the capability of feeding discontinuous fibres. Two essential pieces of equipment were required to achieve this capability: a side feeder (stuffer), which introduces the reinforcing materials directly into the barrel of the twin screw system, and a gravimetric feeder which starve-feeds the fibres into the side stuffer at a specified flow rate.

NRC has already acquired a side feeder (stuffer). This requirement is for the gravimetric feeder. Once the installation of the chopped fibre gravimetric feeder is completed, the ZSK-70 will have the capability of feeding both continuous fibres (rovings) and discontinuous fibres (chopped).

### **3.0 SCOPE AND GENERAL DESCRIPTION**

The chopped-fibre gravimetric feeder must be integrated to the Coperion control panel to feed predetermined amounts of fibres into the side feeder with the specified level of accuracy and according to the machine's algorithm for the calculation of material quantities based on weight percentages. The work involves the supply and delivery of the equipment on site at National Research Council Canada, Concord Ontario, on-site installation (electro-mechanic), programming of the Programmable Logic

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Controller (PLC) system, modification of the Human Machine Interface (HMI) and functionality demonstration to complete the commissioning job.

#### **4.0 MANDATORY TECHNICAL REQUIREMENTS**

**4.1 Loss-in Weight Gravimetric Feeder** – must meet the following minimum mandatory technical specifications:

- 4.1.1 Must have feed rate range of 40 - 200 lbs./hr;
- 4.1.2 Must be able to feed non-free flowing low bulk density materials with an approx. density range of 4 - 10 lbs/ft<sup>3</sup> (0.06 to 0.16 g/cm<sup>3</sup> Able to feed non-free flowing low bulk density materials with an approx. density range of 4 - 10 lbs/ft<sup>3</sup> (0.06 to 0.16 g/cm<sup>3</sup> );
- 4.1.3 Must feed fibre lengths of 1 mm to 7 mm ranging from glass, carbon and natural chopped fibres such as flax, hemp and jute;
- 4.1.4 Must have accuracy of  $\pm 2\%$  with reference material  $\frac{1}{4}$ " (7 mm) seeded chopped CF from Materials Innovation Technologies Reengineered Carbon Fibre , LLC (MITRCF);
- 4.1.5 Must be compatible with Coperion profibus control system (Siemens PLC);
- 4.1.6 Must be mobile for relocation when side feeder is moved to a different barrel section;
- 4.1.7 Must meet the following electrical requirements: 240v/3ph/60Hz **or** 575v/3ph/60Hz;
- 4.1.8 Drives, controllers, panels and dust tight connections must be suitable for use with carbon fibre particulate; and
- 4.1.9 Must be ESA approved, and if applicable CSA approved, at time of delivery to NRC.

**4.2 Dump Station and Loader** - must meet the following minimum mandatory technical specifications:

- 4.2.1 Must have 3.5 cu.ft hopper capacity
- 4.2.2 Must have flexible screw and tube conveyor systems
- 4.2.3 Must have on-board particulate filtration system
- 4.2.4 Must be able to accommodate and convey glass, carbon and natural chopped fibres such as flax, hemp and jute
- 4.2.5 Must be mobile for relocation when not in use
- 4.2.6 Drives, controllers, panels and dust tight connections must be suitable for use with carbon fibre particulate
- 4.2.7 Must have on-board particulate collection and filtration system

4.2.8 Must be compatible with Coperion profibus control system (Siemens PLC)

4.2.9 Must meet the following electrical requirements: 240v/3ph/60Hz or 575v/3ph/60Hz

4.2.10 Must be ESA approved, and if applicable CSA approved, at time of delivery to NRC.

#### **4.3 Programming and Integration**

The Contractor must perform the following:

4.3.1 PLC programming and communication for integration and control of recipe rate control of feeders and loaders in existing Coperion Twin screw extruder utilizing Siemens PLC;

4.3.2 Integrate existing Coperion side screw extruder and Allan Bradley Variable Frequency Drive (AB VFD) drive to main PLC and HMI programs and formula calculations. Including interlocking and E-Stop;

4.3.3 HMI screen and formula revisions to accommodate new hardware;

4.3.4 Install Interlocking, refill and E-Stop controls; and

4.3.5 Provide all required hardware as well as programming and integration as a turnkey solution. Any additional hardware and components supplied by the Contractor to complete the integration must be compatible with the Coperion twin screw system, PLC program and Profibus communication.

4.3.6 Record copy of original and revised programs and submit records to NRC upon completion of integration.

#### **4.4 Other Requirements**

The Contractor must provide:

4.4.1 Installation on site at National Research Council, Concord, Ontario, commissioning and start-up of all equipment, and a 2 day basic operation and maintenance training for four people.

4.4.2 Three hard copies and one electronic copy of all technical manuals.

#### **5.0 MILESTONES AND DELIVERABLES**

5.1 Within 7 calendar days of award of contract, the Contractor must appoint a Project Manager and communicate contact information to NRC's Project Authority.

5.2 The Contractor must provide NRC with a detailed project schedule, including all project milestones, within 7 calendar days of award of contract.

5.3 The Contractor must provide NRC with installation drawings, including requirements for electrical power, compressed air, city water, anchoring, etc., within 30 calendar days from award of contract.

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- 5.4 Within 30 calendar days of award the Contractor must provide NRC with an acceptance program detailing all tests that will be performed at NRC for the on-site (NRC's premises) acceptance of the feeding system. Tests must demonstrate that the feeder is fully operational and that all functionalities that may have been altered during shipping, or that are sensitive to installation, are verified and operational. This document must describe, for each test, the objective (what is being verified), how the test will be performed, how the requirement will be validated (type of measurement, instruments/equipment used, raw materials and consumables required, etc.) and what will be the pass/fail criterion. It must list any special equipment that will be required to perform the tests.
- 5.5 All deliverables including equipment, installation, programming, integration, commissioning and training must be completed by 28 March 2014.
- 6.0 OTHER CONDITIONS**
- 6.1 All communications between Contractor's Project Manage and NRC's Project Authority will be in English unless otherwise agreed upon between Contractor and NRC.
- 6.2 All the documents above must be written in the English language as a minimum.
- 6.3 The Contractor must provide all operation software upgrades to NRC during the first year warranty period commencing at final acceptance, at no additional cost.

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## ANNEX "B"

### BASIS OF PAYMENT

Firm all inclusive lot price, in Canadian funds, FOB National Research Council, Concord, Ontario, including all delivery charges. Prices include Canadian customs duties and excise taxes as applicable and Goods and Services Tax/Harmonized Sales Tax EXCLUDED.

#### 1.0 Requirement

Gravimetric Feeder - in accordance with Annex A \$\_\_\_\_\_ Firm Lot Price

Model and Number(s)

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